

MASS APPRAISAL

Mass appraisal is a methodology for valuing individual properties which involves the following process:

- properties are stratified into groups of comparable property
- common property attributes are identified for the properties in each group
- a uniform valuation model is calibrated for each group using market information incorporating the property attributes

Mass Appraisal and Single Property Appraisal

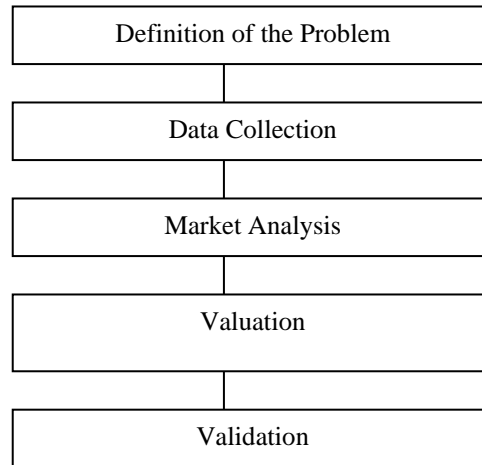
The appraisal process recommended by the Appraisal Institute of Canada is essentially the same for mass appraisals and single-property appraisals. Differences that exist mostly result from differences of scale. The following two quotations indicate how the International Association of Assessing Officers distinguishes between mass appraisal and single-property appraisal:

... “*single-property appraisal is the valuation of a particular property as of a given date: mass appraisal is the valuation of many properties as of a given date, using standard procedures and statistical testing.*”

... “*Also, mass appraisal requires standardized procedures across many properties. Thus, valuation models developed for mass appraisal purposes must represent supply and demand patterns for groups of properties rather than a single property.*”

The International Association of Assessing Officers, *Property Appraisal and Assessment Administration*, Chicago, Illinois, 1990, pg.88-89.

The appraisal process, as followed for both mass appraisal and single-property appraisal, consists of the following stages:



PROCESS	MASS APPRAISAL	SINGLE APPRAISAL
Definition and purpose	Mass appraisal is used to determine the base for property taxation in accordance with legislative requirements.	The client specifies the nature of the value to be estimated, including rights to be valued, effective date of valuation, and any limiting conditions.
Data Collection	Mass appraisal requires a continuing program to maintain a current database of property attributes and market information.	The extent of data collection is specific to each assignment and depends on the nature of the client's requirements.
Market Analysis	Mass appraisal is predicated on highest and best use.	Market analysis includes the analysis of highest and best use.
Valuation Model Specification and Calibration	Valuation procedures are predicated on groups of comparable properties.	The subject property is the central focus of the valuation procedures. The analysis of comparable properties is restricted to a few properties – generally six or less.
Validation	The testing of acceptable analysis and objective criteria.	The reliability of the value estimate is more subjective. Acceptability can be judged by the depth of research and analysis of comparable sales.

Mass Appraisal Approaches

The cost approach, sales comparison approach, and income approach were explored.

Cost Approach

The cost approach involves adding the depreciated replacement cost of improvements to the estimated value of land (derived from sales). The cost approach was only employed to derive market estimates for properties whose market values were not accurately predicted by the income approach.

Sales Comparison Approach

In the sales comparison approach, market value is estimated by comparing the subject property to similar properties that have recently sold, are listed for sale, or are under contract. 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.

For the purposes of the 2012 Annual Assessment the sales comparison approach was employed in two ways. First, this approach was used in developing inputs for the attributes used within the income pro forma, such as rental rates, operating costs, vacancies, and capitalization rates. Second, the sales comparison approach was used to establish upper and lower threshold valuation ranges per square foot for all properties within the inventory experiencing chronic vacancy.

All sales within the commercial inventory were reviewed and analyzed as of the date of sale. Those sales were used as checks against valuations determined via the income projections. Sales reflect the condition of a property as of the sale date and thus may not always be equivalent to their assessed value.

Income Approach

For the purpose of the 2012 Annual Assessment, viable income producing properties were valued based on their income potential using 2011 market *net rental lease rates*, not *effective net lease rates*. The Income Approach is the approach of choice, as it best reflects the typical actions of buyers and sellers when purchasing income-producing properties. This approach estimates the value of a property by determining the present value of the projected income stream. Direct capitalization is the method of choice employed to value the majority of properties in the commercial inventory. This involves capitalizing the derived net income by an overall rate determined from comparable market sales.

The International Association of Assessing Officers (IAAO) *Standard on Mass Appraisal of Real Property*, Chicago Illinois, 2002, sets out the recommended uses of the three approaches. Section 4.6.3 of the IAAO standard states:

The income approach is the most appropriate method to apply when valuing commercial and industrial property if sufficient income data are available. Sales comparison models can be equally effective in large jurisdictions with sufficient sales. When a sufficient supply of sales data and income data is not available, the cost approach should be applied. However, values generated should be periodically checked against available sales data. Cost factors, land values, and depreciation schedules must be kept current through periodic review.

The Income Approach was deemed to be the best method of establishing equitable valuation estimates. Ample information was provided by property owners with regards to both income and expense information, which also reinforced this decision.

Definitions

To provide a clear understanding of the terms and applicable definitions used throughout the income approach, the following definitions are supplied for ease of review for the reader.

Typical Market Rent:

The rent currently prevailing in the market for properties comparable to the subject property is the typical market rent including tenant improvements, otherwise known as current economic rent. Current economic or market rents are used to form the basis of the valuation as opposed to actual rents, because in many cases actual rents reflect historical revenues derived from leases negotiated before the valuation date.

In determining gross potential income, the valuator is not bound by the contractual rent between the landlord and tenant, but must determine rental income on the basis of what is typically paid in the market at the time of valuation. This rent is known as “market” or “economic” rent.

Base Rent / Net Rent:

The stipulated or contract rent exclusive of additional charges to the property (taxes, insurance, utilities and maintenance). Base and net rent do not include GST.

Triple Net Rent:

A rental structure where the tenant (lessee) pays all charges to the property (e.g.: taxes, insurance, utilities, maintenance) in addition to the stipulated or contract rent. Structural repairs are excluded from the tenant responsibility.

Effective Net Rent:

A rental term identifying the rental amount (usually in dollars per square foot of leased area) after adjustments have been made accounting for free rent periods, plus the present value of tenant improvement allowances and other inducements such as free parking.

Potential Gross Income (PGI):

Potential gross income is the current market rent which would be collected if the property were fully occupied at the date of valuation. In estimating PGI, the appraiser distinguishes between market rent and contract rent.

Market rent is the rate prevailing in the market for comparable properties and is used in calculating market value by the income approach. Contract rent is the actual amount agreed to by landlord and tenant. If the leases are long term, contract rent is important in calculating investment value.

For short-term leases, the appraiser/assessor should determine whether it is reasonable to assume that contract rent will equal market rent when the leases are renegotiated.

Potential gross income is derived by multiplying all Gross Leasable Areas (GLA) in the building by the current market rent for that space.

$$\boxed{\text{ALL GLA}} \times \boxed{\text{MARKET RENT FOR SPACE}} = \boxed{\text{PGI}}$$

Stabilized Vacancy and Collection Loss:

This is a deduction from the potential gross income for typical vacancy and collection losses, assuming current market conditions and typical management.

Vacancy losses are best described as an allowance for vacant space. Collection losses are considered unpaid rents that the landlord is unlikely to recover. These allowances are usually expressed as a percentage of potential gross income, although variations can occur where they are applied to only certain rental properties.

Effective Gross Income (EGI):

The anticipated income from all operations of real property adjusted for vacancy and collection loss.

$$\boxed{\text{PGI}} - \boxed{\text{STABILIZED VACANCY \& COLLECTION LOSS}} = \boxed{\text{EGI}}$$

Operating Expenses (OE):

Periodic expenditures necessary to maintain the real property and continue the production of the effective gross income.

Net Operating Income (NOI):

The actual or anticipated (before income tax) net income from the operation of the property after deducting all expenses from the effective gross income but before debt servicing costs. The term is often abbreviated to net income and sometimes stated as net income before recapture.

$$\boxed{\text{EGI}} - \boxed{\text{OE}} = \boxed{\text{NOI}}$$

Overall Capitalization Rate (OAR):

A rate reflecting the relationship between a single year's anticipated net operating income (or an average of several) and the total price or value. The OAR converts net operating income into an indication of property value. The rate in its basic formula is found by dividing net operating income by the sale price of a comparable property.

$$\boxed{\text{NOI}} \div \boxed{\text{OAR}} = \boxed{\text{ASSM'T}}$$

Generally speaking, properties achieving lower capitalization rates demonstrate the following attributes:

- The building exhibits a track record of high occupancy levels
- Lease rates are either at or close to accepted market levels
- The ability to attract and retain tenants is considered strong
- The overall area is well maintained
- Lower risk on investment

At the opposite end of the spectrum, properties with higher capitalization rates exhibit the following traits:

- The area consistently exhibits high levels of vacancy
- Covenants are less secure
- The properties may require some capital outlay to correct deferred maintenance
- Higher risk on investment

Basic Categories of a Proforma

ALL GLA	X	MARKET RENT FOR SPACE	=	PGI
PGI	-	STABILIZED VACANCY & COLLECTION LOSS	=	EGI
EGI	-	OE	=	NOI
NOI	÷	OAR	=	ASM'T

Commercial Retail Property

Study and Market Areas:

- Generally speaking, commercial properties fall into two basic groupings: those lining major roadways (strip commercial), and those away from major roadways.
- Location within the City was used as the major determination for the grouping of properties into *study and market areas*. The following map shows the boundaries of the Commercial Market areas.

- The first step in the process was to identify strip commercial areas (a cluster of commercial properties side by side along major traffic arteries). These strips were then designated as *study areas*. Fifty-five separate areas were identified.
- Next, twenty-one *market areas* were identified. These consisted of all areas that were not within a study area.
- All analysis was referenced to these study and market areas.

Commercial Retail Property

STRATIFICATION

The Commercial Retail Property has been broken down into five major groups as follows:

- **General Retail**
- **Plaza**
- **Retail/Office Condo**
- **Gas Related/Auto Service**
- **Residential Conversion**

These major groups have been further stratified as follows:

General Retail

Free standing individual buildings or a group of street-front businesses. These stores generally sell merchandise and/or provide a variety of services.

General Retail can be broken down further into these subgroups:

- Retail
- Restaurant
- Restaurant Fast Food
- Bank
- Convenience Store
- Office
- Medical Office
- Warehouse Retail
- Warehouse
- Auto Service

Plaza

Plazas are typically commercial developments with no identifiable major anchor tenants. These centers may however contain a junior anchor tenant along with a number of smaller local value-oriented tenants. Ample on-site parking is usually located in front of stores. Building sizes can vary. From analysis of reported rental information it was found that the typical ratio of net leasable area to gross floor area was as follows:

Retail Plaza	Main floor	95% of gross floor area
	Upper floors	90% of gross floor area
	Basement	90% of gross floor area

Retail/Office Condo

Developments made up of individual units that may house a variety of businesses. These properties are modeled by the Sales Comparison Approach.

Gas Related

Gas Stations with convenience store: Properties that contain a retail element with full service or self-serve gas bars. Retail and the service station equipment are valued by the Cost Approach.

Auto Service: Characterized by the presence of one or more service bays used for the repair and maintenance of motor vehicles, sometimes including a fuelling operation.

Residential Conversion

Total Residential Conversion: A residential house where major interior and exterior alterations have been done to create commercial space. Total Residential Conversion is valued by the Sales Comparison Approach.

Residence Commercial Use: A residential house with no changes to the floor plan but which is used for commercial purposes. Residence Commercial Use is also valued using the Sales Comparison Approach.

Income Approach by Direct Capitalization

The model incorporates a number of factors that typically impact the value of an investment property:

- Market Rent
- Collection Loss

- Stabilized Vacancy
- Capitalization Rates

The Edmonton commercial market was surveyed in order to develop appropriate estimates for each of these factors. A summary of the major conclusions is provided as follows:

Market Rent Prediction

An analysis of market rent was carried out and a model was developed to predict average net rent for individual properties. Factors identified in the analysis were:

- Size
- Site Coverage
- Age
- Space type
- Location

Estimated Net Leasable Area

Because net leasable areas for the General Retail Properties are not readily available, an estimated value is used. From analysis of reported rental information it was found that the typical ratio of net leasable area to gross floor area was as follows:

General Retail	Main floor	95% of gross floor area
	Upper floors	90% of gross floor area
	Basement	90% of gross floor area

Operating Expenses (OE)

Structural Repair:

Typically under the terms of conventional triple net leases, all operating expenses and property taxes are fully recouped by the landlord from the tenant.

The only exception relates to items of a structural and/or capital nature, which are normally excluded from such recoveries. Within the valuation process, a structural repairs and maintenance allowance is provided to cover these items. For newer, well-maintained properties less than 45 years old, this typically amounts to 2% of the Effective Gross Income. When projects are greater than 45 years, a 3% charge is normally applied.

Vacancy Shortfall:

Vacancy shortfall is described as charges that reflect the costs of operating the interior and exterior common areas of a property, and therefore include expenses as follows: Utilities, Heating, Insurance, Garbage & Snow removal.

SUMMARY

The preparation for the assessment of all Commercial Retail Property adjusts for attributes that impact market value in order to arrive at a typical market value for properties in this class.

The resulting assessments were tested. The results indicated that our model predictions of value meet Provincial Quality Standards as set out in the *Matters Relating to Assessment and Taxation Regulation, AR 220/2004*.

The assessment models, the process utilized, and the results are submitted annually to the Assessment Services Branch of the Department of Municipal Affairs for audit purposes.

The audit is used to determine the accuracy of our predictions relative to the market place, and is a direct reflection on the accuracy of our models.

The City of Edmonton has met all governing legislation including regulations and quality standards.