Market Value Assessment in Saskatchewan Handbook

Valuation Parameters

Table of Contents

Valuation Parameters Guide

Market Value Based Assessment Legislation in Saskatchewan

Saskatchewan has different assessment legislation[1] than other jurisdictions in Canada that must be taken into account when valuing properties for assessment and taxation purposes. There are specific definitions in Saskatchewan for "base date", "market value", "Market Valuation Standard" and "mass appraisal". It is important to understand how these definitions relate to one another and the requirement for market value based assessments to be determined in accordance with the Market Valuation Standard.

Base Date is defined as "...the date established by the agency for determining the value of land and improvements for the purpose of establishing assessment rolls for the year in which the valuation is to be effective and for each subsequent year in which the next revaluation is to be effective;"

Market Value is defined as the "...amount that a property should be expected to realize if the estate in fee simple in the property is sold in a competitive and open market by a willing seller to a willing buyer, each acting prudently and knowledgeably, and assuming that the amount is not affected by undue stimuli;".

Market Valuation Standard means the "standard achieved when the assessed value of property:

      (i)   is prepared using mass appraisal;

      (ii) is an estimate of the market value of the estate in fee simple in the property;

      (iii) reflects typical market conditions for similar properties; and

      (iv) meets quality assurance standards established by order of the agency;"

Mass appraisal is defined as "…the process of preparing assessments for a group of properties as of the base date using standard appraisal methods, employing common data and allowing for statistical testing;".

Assessment legislation in Saskatchewan requires that non-regulated property assessments be determined pursuant to the Market Valuation Standard. Throughout this Handbook the term "market value based assessments" is used to refer to non-regulated property assessments. Unlike single property appraisals, market value based assessments must be prepared using mass appraisal and "...shall not be varied on appeal using single property appraisal techniques". All Handbook references to market value are subject to the requirements of the Market Valuation Standard.

---

[1] The following Acts provide the statutory basis for property assessment in Saskatchewan:

- *The Assessment Management Agency Act*
- *The Interpretation Act, 1995*
- *The Cities Act*
- *The Municipalities Act*
- *The Northern Municipalities Act, 2010*

For more details on how to access this information refer to Appendix 2: Resources - Section 2a (Queen's Printer).

1.0 Introduction

What are valuation parameters?

Valuation parameters are the property characteristics determined through market analysis to influence value for a group of properties as of a given base date. These parameters are used in every valuation process to ensure that results obtained in the valuation of properties are reasonable.

Why are valuation parameters important?

1. Valuation parameters are the critical elements in a valuation process; they are the factors that determine the values of a group of properties.

   For example, the following valuation formula for a hotel has two variables: number of units and value per unit:

   Hotel Value = Number of Units x Value per Unit

   - The "Number of Units" is a variable dictated by physical evidence.
   - The "Value per Unit" is a valuation parameter established by the assessor through analysis of market evidence.

   In this example, once the valuation parameter is determined for a particular class of hotels, it becomes possible to determine values for all hotels in this class by determining the number of rooms in each hotel and applying the formula to each property.

   The terms variable and valuation parameter are used throughout the Handbook and the valuation guides in referring to valuation models. Mass appraisal theory commonly uses the term specification to refer to the process of determining supply and demand variables for a valuation model and the term calibration to refer to the process of estimating valuation parameters for variables in the valuation model.

2. The assessor is required to estimate the fee simple value of real estate in accordance with the legislated requirements of the market valuation standard. To achieve this end, the valuation process should reflect the actions of participants in the marketplace. The valuation process should be applicable to all properties and should have enough flexibility to reflect the variations and market conditions encountered as of a given base date.

   In modelling the actions of the participants in the marketplace, variables and their respective valuation parameters are identified, researched and analysed by local assessors. For each variable, a valuation parameter (or a value) is developed using standard mass appraisal methodology.

   During model development, the assessor collects and analyses property characteristics which, based upon mass appraisal analysis, add or detract from property value. At times, the assessor relies on his professional knowledge of the market. The final model will reflect typical market conditions as of a given base date.

Once the valuation model is developed, the assessor applies the model uniformly to all properties represented in the model. Equity is achieved when the valuation model is applied uniformly to all similar properties.

Appropriate statistical measures (median, mean, range, etc.) can be determined for each valuation parameter. When the assessor applies these valuation parameters to all similar properties, then the market value based assessments will be fair and consistent.

What are the variables or factors in a valuation process?

The market value based assessment of every type of property is guided by and relates to a number of common characteristics or variables:

1. The physical characteristics of the property:
   • Property use;
   • Building size/area;
   • Construction style/materials;
   • Condition of improvements;
   • Building configuration;
   • Site size, and;
   • Location.
2. The supply and demand conditions in the market place.
3. Legal restrictions (i.e. zoning, etc.).

What are the valuation parameters in a valuation process?

The valuation parameters outlined in each valuation process are guides to indicate appropriate variables to consider in the analysis of values (i.e. the valuation formula) and the values that would be appropriate to use in the valuation models. The following are examples of the types of factors that may be considered in developing valuation parameters:

1. The costs of construction.
2. The income characteristics of the real estate:
   • Rents;
   • Other income; and
   • Operating expenses, etc.
3. The market place:
   • Risk profiles (i.e. capitalization rates); and
   • Market sales prices.

1.1 Scope of Valuation Guide

This valuation guide outlines the process by which valuation parameters used in the various valuation guides may be developed. This guide also discusses where the information used in the process can be found.

Examples from various property types (i.e. shopping centres, multi-residential properties and office buildings) are used in different sections of this Valuation Guide in order to provide a broader demonstration of some of the data and valuation parameters that are used to determine market value based assessments.

> Hypothetical data and analysis are provided throughout this Valuation Guide in the narrative and in various examples, tables and forms. These examples are provided for illustrative purposes only. The exact form of the market value based assessment analysis is up to the discretion of the assessor subject to the Market Valuation Standard and other relevant legislation.

2.0 Outline of Valuation Parameter Process

In the process of developing values for particular property types, the general steps to follow are:

- Review the specific valuation guide to determine the approach to value and valuation process considered most appropriate for the property group under consideration;
- Research the market to determine the appropriate variables to include in the valuation model (model specification) using standard mass appraisal methodology;
- Research the market to quantify the valuation parameters to apply to each model variable (model calibration) using standard mass appraisal methodology; and
- Apply the model uniformly to all similar properties represented by the model.
- Statistically test the market value based assessments.

2.1 Identify Valuation Parameters

Each valuation guide sets forth a valuation process containing various valuation parameters. Examples of these processes and typical valuation parameters can be found in Appendix A - Summary of Valuation Parameters Examples. *(Refer to Section 5.0.)*

2.2 Collect the Appropriate Data

Once the variables and the valuation parameters for a valuation procedure and property type have been identified the next step is to collect the necessary data. This step in the process ensures there is enough information to develop appropriate valuation parameters and values for properties.

More than any other factor, the type and quality of information available dictate the methods that can be used to value properties. The effort put in at the information collection stage will determine the quality of the final analysis.

Data Collection Guidelines

The general process in the collection of data considers:

- The size, nature, physical attributes and condition of each property;
- The market conditions and data as of the base date;
- Cost rates and cost data for a valuation process involving the cost approach to value;
- Income and expense data and capitalization rate data for a valuation process involving the income approach to value; and
- Sales data for a valuation process involving the sales comparison approach to value.

Sources of Information

General sources of information include, but are not limited to, the following:

- Existing assessment records;

- Owner of a property (or the designated contact person);

- Property inspections;

- Information Services Corporation; and

- Other government or industry publications, industry associations, and appraisal and other professional reports.

All sources of information are important and should be researched and analysed to the extent practical.

Existing Assessment Records

The existing assessment records may have the appropriate information on file, may be dated, or may be oriented to a valuation approach that is no longer employed in the analysis of values for that type of property.

It is important that assessment records be kept as current as possible and that appropriate information is available to determine the values of properties.

The assessor should be aware that assessment records may vary in terms of detail and accuracy. For example, the lot size and legal description of most properties does not change frequently. However, caution should be exercised as road widenings and other issues can produce changes in these figures. Property information is constantly subject to change. The more outdated the assessment records, the greater likelihood of errors.

Assessment records can include some or all of the following types of information:

- Site size, configuration, topography;

- Building quantities, dimensions and areas;

- Building construction information

  - Construction dates

  - Construction materials

  - Construction styles

  - Plans, drawings, layouts, etc.

  - Actual cost information

- Income and expense statements;

- Other financial information;

- Rent rolls;

- Sales information

  - Price

  - Date of sale

  - Interests sold

  - Vendor

  - Purchaser

  - Financial arrangements

- Date of last inspection and inspection report; and

- Date of last contact with owner (or the designated contact person) and information collected at that time.

Owner of a Property

In this guide, references to obtaining information from the owner of a property are meant to also include the owner's designated contact person where applicable. The owner of a property (or their designated contact person) is the best source of current information about the operations, utility and functionality of a property.

There are several ways to approach the property owner to obtain information about the property:

- A questionnaire by mail (*Refer to Figures 1 to 3 for examples of various data collection forms for shopping centres.*);

- By telephone; or

- A meeting.

The first method is the least time consuming and the last is the most time consuming. However, the last method is the most interactive so it is may produce the best results in terms of information supplied.

Figure 1: Information Request Form – Shopping Centre Example

As part of the ongoing assessment process the Assessment Department requires
certain income and expense information from you pertaining to the property identified as:

Name	
Address	
City	
Assessment Roll #	

Any information received will be treated in a confidential manner.
Failure to provide information has potential consequences.

Information Required

>   **Rent Roll** pertaining to the property for the period covering: **20__**

>   **20__ Income and Expense Statement** pertaining to the subject property

>   **20__ Income and Expense Statement** pertaining to the subject property

Information Format

Information can be submitted in either **electronic** or **paper format,** or by filling in the **enclosed forms**. Our preference is to receive **both electronic and paper formats.** Information can be submitted in the format used by the property owner but at a **minimum** the following information should be provided:

Minimum Information Requirement on Each Tenant - Rent Roll Information
- Location number
- Tenant (trade) name
- Gross leasable area
- Lease start date
- Lease end date
- Base rent (per month total, year total, or annually per square foot)
- Overage rent (per month total, year total, or annually per square foot)

Include information on all tenants and vacant space. Indicate the date of the Rent Roll.

Minimum Information Requirement from Income and Expense Statement
- Rental income totals (all forms of rent)
- Other income
- Expense recoveries
- Tax recoveries
- Other recoveries
- Operating expense total
- Property taxes

Figure 2: Rent Roll Request Form – Shopping Centre Example

TO BE FILLED OUT IN CASES WHERE RENT ROLL INFORMATION IS OTHERWISE NOT AVAILABLE
 (AS PER INFORMATION REQUEST).
** MAKE AS MANY COPIES AS REQUIRED **

| Centre: |
| Address: |
| Rent roll date: |

Loc.	Trade Name	Rent Area GLA	Lease Dates		Rents		Total Rent
			Start	End	Base	Average	

Figure 3: Income and Expense Request Form - Shopping Centre Example

TO BE FILLED OUT IN CASES WHERE INCOME AND EXPENSE INFORMATION IS OTHERWISE NOT AVAILABLE

Centre:		
Address:		

RENTAL INCOME	**20__**	**20__**
RENTAL INCOME - BASIC		
PERCENTAGE OR OVERAGE RENT		
STORAGE RENT		
OTHER RENT		
OTHER INCOME		
TOTAL RENT		
EXPENSE RECOVERIES		
RECOVERIES - OTHER		
RECOVERIES - PROPERTY TAXES		
MISCELLANEOUS		

TOTAL INCOME		

OPERATING EXPENSES		
INSURANCE		
OPERATING		
MAINTENANCE		
CLEANING		
UTILITIES		
ADMINISTRATION		
MANAGEMENT		
LEASING AND PROMOTION		
OTHER EXPENSE		
TOTAL OPERATING EXPENSE		
PROPERTY TAXES		

TOTAL EXPENSE		

The assessor must weigh the information requirements to value a particular property against the information in the current assessment records, as well as the time available, in order to decide what approach should be used.

As a general rule, more time should be spent on more complicated properties and less time on less complicated properties. For example, it makes more sense to spend time discussing the operations, functionality, and utility of a special purpose industrial property with its owner than to spend the same amount of time interviewing the owner of a standard sized warehouse.

All sold properties should be inspected and the terms of all sales investigated.

Meeting with property owners is a very effective way of determining depreciation and gathering overall market condition information for the particular type of property. They may also be a good source of information about future expectations for their property.

Information Services Corporation is a reliable source of sales information. However, the owner is the primary source of certain current information for a property such as:

- Plans, drawings, layouts, etc.;

- Actual construction costs;

- Financial records

    - Rent rolls

    - Vacancy rates

    - Income and expense statements; and

    - Financial plans and forecasts.

- Sales information including:

    - Prices and interests sold

    - Motivations; and

    - Financial arrangements.

- The current utility and functionality of the property;

- The current production and/or performance of the property; and

- Plans for renovations or additions.

Property Inspection

To keep assessment records up to date, all assessed properties are generally inspected from time to time. The site inspection serves to confirm existing data and to obtain physical, descriptive, or other information that is missing on the file, and also to determine the current state and condition of the property. It can also be used as an opportunity to meet the owner or designated contact person.

A property inspection is the best source of physical information about a property and it serves several purposes.

- Confirmation of existing assessment records.

- Indication of the current state and condition of the property.

- Confirmation of information provided by the owner (or the designated contact person) and other sources.

- Taking a photograph of the property as an addition to the file.

It should not be necessary to perform a detailed inspection each time a property is renovated or otherwise modified. Such data can generally be obtained through other means such as building plans from the owner (or the designated contact person).

Site Inspection – Data Entry Form

Good records should be made when inspecting a property. The inspection sheet should be dated and the time spent at the site can be noted. Each valuation procedure typically has a property data entry form that will assist the assessor in identifying the appropriate information to be collected for that type of property. *(Refer to Figure 4 for an example.)*

Physical Data

The data entry form can include a great deal of information about the physical aspects of the property.

- Location;

- Year built;

- Site area;

- Number of floors;

- Numbers and types of apartments;

- Amenities; and

- Rent characteristics (items included in the rent).

Qualifying Data

Comments and judgments about the location, quality, condition, and various other aspects of the property may also be recorded.

Sales Data

The sales data, if available, may also be recorded.

With this data it should be possible to characterize and classify the property into a group of properties that contain similar attributes. Not all characteristics will be used to develop the property classes but they should be noted to assist in the application of the valuation parameters and the valuation of the property.

Although data entry forms are designed to capture the main descriptive variables used in the valuation process, the assessor should not limit the analysis to the items included on the forms. If the property has an unusual condition or outstanding feature, then this should be noted in the information collected.

On-site data collection may also be facilitated using hand held electronic devices where the appropriate data is recorded and uploaded to the assessor's valuation system. This highly efficient as it reduces the need to manage paper forms, it ensures the collection of appropriate data for each property type, and reduces the need for manual data entry and potential input errors.

Screening Information

All data collected should be scrutinized to ensure that it is accurate and fairly reflects the nature of the property. Two common considerations are presented below.

Assessment Records

Obviously the age of the information is the primary critical factor in determining the applicability of the assessment records. However, other issues will also come into play.

- Who collected the information?

- Is the data applicable to the valuation process?

- Is the property subject to constant assessment appeals? (This could be an indication that the existing information on the assessment record is not reflective of the owner's view of the property.)

Owner (or the designated contact person)

The owner is also the taxpayer and therefore a certain bias can be expected from some owners in the information presented to the assessor. However, as discussed, the owner is the primary source of some of the critical information required in the valuation process for many properties.

An assessor's responsibility is to listen to the concerns and facts as presented by the owner, and critically review these findings through comparison of the findings and information gathered from other sources and other owners (or the designated contact persons) involved with similar property.

Figure 4: Multi-Residential Data Entry Example

Address			Base Date	
Municipality				
Assessment Roll #			Multi-Res Class	**B**

Building Data		Unit Types	No.	No. of Rooms	Typical Area (sf)
Year built	1983	Bachelor/ Studio	4	3.0	750
Renovations	no	One bedroom	114	4.0	880
Sites area (Sf)	136,000	Two bedroom	201	5.5	1,100
Building Area (Sf)	388,020	Three bedroom	48	7.0	1,325
Density (Bldg/Land)	2.85	Other			
Number of Floors	12.0	Commercial (Sf)			
Number of Units	367	Totals	**367**	**1,910**	**388,020**
Parking Indoor spaces	250	Average number of rooms /unit			**5.20**
Parking Outdoor spaces	100	Average unit size (sf)			**1,057**

Inspection Notes		Amenities	Yes/No	Comment
Inspection date	12-May-96	Air Conditioning	no	
Condition (Fair, Avg, Good)	Avg	Carpeting	yes	
Location (Fair, Avg, Good)	Avg	Pool	yes	outdoor
Quality (Fair, Avg, Good)	Avg	Tennis courts	no	
Rental Appeal	Avg	Exercise facilities	no	
		Other	no	

Included in Rent	Yes/No	Meeting room	yes	1,450 sf
Heat	yes	Laundry	yes	coin operated
Electricity	no	Furnished Apt.	no	
Water / sewage	yes	Refrigerator	yes	
Parking	no	Stove	yes	
Cable	yes	Other Furnishings	no	

Location comment	Near centre of town. Part of high density res. neighbourhood
Site comment	Level & landscaped
Other comment	

Sales Data			Market sale ?	No
Sales Price		Price @ 100% Interest		
Sales Date		Financing		
Instrument Number		Effect of Financing (+/- %)		
Interests Transferred		Final Price @ Mkt. Financing		
Vendor Name				
Vendor Address				
Purchaser Name				
Purchaser Address				

Supporting Information

Sources of supporting information include: building owners/managers, real estate consultants and brokers, real estate publications, industry associations, and government sources, such as the Canada Mortgage and Housing Corporation (CMHC).

It is not possible to generalize what types of data may be found in other sources of information. Research may provide helpful information, or it may produce results that are only peripheral to the valuation exercise. For example, at the present time CMHC tracks apartment vacancy rates in many but not all municipalities.

Furthermore, the type and nature of information available from other sources is not constant and in some years there may be more available information than in others.

In the guides several sources of other information may be listed. However, this list should not preclude the assessor from exploring other sources such as the Internet.

For example, in addition to shopping centre owners/managers, the Shopping Centre Valuation Guide suggests the following sources of other information:

- Real estate consultants and brokers;

- Real estate publications, for example, *Dollars and Cents of Shopping Centres*;

- Shopping centre guides and directories, for example, *Canadian Directory of Shopping Centres;* and

- Industry associations.

Other Sources - Being Critical About Statistics

Some information from other sources can be relied upon as strictly factual and presented without bias. However, even the raw data collected by sources such as Statistics Canada may be from a limited number of replies and as such it may not entirely reflect the reality of the market place.

In analyzing of statistical data it is important to know what was said, the questions that were asked, and who replied – these latter two factors are often overlooked in the analysis of statistical data.

Other sources of information generally report research results. However, there are a number of factors that can influence the findings.

- Were all results reported? It may be that when the study was completed, unfavourable results were omitted.

- What questions were asked to obtain the data? The phrasing of a question can often be leading and the results produced will then indicate a bias.

- Who answered and did not answer the questions? Analysis of data reflects the replies of the people who answered the questions. For the results to apply to the entire group of properties or the entire population, the sample size must be statistically valid. If the group sampled is not representative of the population, the results cannot legitimately be applied.

Often the questions asked and the people that answered are not reported in a study. If the results of a study are critical to the valuation process, some effort should be made to determine how the results were produced. Otherwise, a general evaluation of a research report should consider the following:

Determine who made the report, who the target audience was, and view the results from that basis.

How much information is required?

There are two general rules to follow in the gathering of information:

1. Gather as much information as needed so there is confidence that the results reflect market value based assessments.
2. Work from the general to the specific until sufficient information is gathered to meet the first condition.

Information Gathering Conclusion

In order to effectively value properties, relevant, current and accurate information must be collected in sufficient quantity and quality to be valid. This information can be separated into two categories:

- Property Variables - which are specific to a particular property
- Valuation Parameters - which are generic to a group or class of properties;

The mass appraisal process also requires the development of valuation parameters to:

- Ensure that market value based assessments are determined subject to the Market Valuation Standard and;
- Assist in valuing properties where appropriate information could not be obtained.

2.3 Analyse the Data

Specific Property Variables

Certain data will be property specific (i.e. rooms in a hotel, the gross leasable area of a shopping centre and the number of apartments in a building).

Other than ensuring that the appropriate information is available for analysis and that the facts are correct, property variable information does not require further analysis.

Development of Valuation Parameters

For the valuation parameters that guide the valuation of property, the data collected requires the following kinds of analysis to produce the appropriate valuation parameters:

- Sorting and classifying;
- Tabulating; and
- Refining the results.

Sorting and Classifying

Perhaps the most difficult part of the valuation parameter development process is to divide the properties into groups that have similar traits and value characteristics. However, this step is also the key to a

successful market value based assessment analysis. While the Handbook refers to classification, this process is commonly referred to as stratification.

Classifying Lease Spaces into Groups

In mass appraisal, the key to a successful market value based assessment analysis is to stratify or classify all properties and types of lease spaces into groups containing common characteristics. For example, the classification of shopping malls would seek to find common groups based on the type of mall (enclosed, one level, suburban, etc.) or similar types of rental arrangements (food court outlets). If there is not a representative sample of stores within a class, it becomes difficult to determine typical rents and valuation parameters. Conversely, fewer classes suggest more stores within a class, representing a broader range of characteristics within the class.

There is no single correct or appropriate classification system. Two questions must be considered when choosing a classification system.

> 1) How will this system assist in the valuation of the particular property?
> 2) How will it assist in the valuation of similar properties?

One of the objectives of the classification system is to employ mass appraisal techniques and to value properties where no market information is received. The classification process should assist the assessor by helping to determine and apply valuation parameters using mass appraisal procedures.

Property Classification Guidelines

Classes of property may contain very few similar properties (as in the case of specialized industrial developments) or as many as several thousand properties (as in the case of single family detached homes).

For properties that are marketed locally and are subject to local market competition, such as multi-residential buildings, the property classification systems may be based upon the types of properties prevalent in the jurisdiction and/or market area.

For properties where there is a more national market and for those with similar national characteristics (such as shopping centres), the property classification system may be based upon accepted national definitions, (i.e. regional shopping centres).

The objectives of classification are:

- To enable the valuation of a number of properties easily and efficiently.
- To stratify the properties into specific classes so that comparisons are meaningful.
- To have a broad enough definition of classes so that there are sufficient numbers within the group to establish valuation parameters and values.

Classes of properties and their valuation parameters should be developed for each jurisdiction and/or market area, where supported by market evidence. However, where properties are reasonably similar throughout the province, the classifications and valuation parameters may also be reasonably similar.

How to Classify Properties

Homogeneous classes may be established based upon physical characteristics such as:

- • Function/nature;

- • Location;

- • Size

    - Size of site;

    - Floor space;

    - Volume;

    - Number of units;

    - Number of floors; and

    - Production capacity.

- • Density of development (land/building ratio);

- • Age/condition; and

- • Facilities/amenities.

As the number of identifying variables increases, the number of potential classes also increases. The objective is to achieve large classes that have similar characteristics. In this way, properties can be valued using the same valuation parameters. For example, it might be expected that all high rise apartment units in the center of a municipality would have roughly similar values per unit, and therefore, can be classified as one group. However, it would not be expected that a high-rise unit would have the same value as a low-rise unit in a better residential neighbourhood. Therefore, in most instances, a different class would be needed for the low-rise property.

It may also be possible to narrow the number of physical variables considered in establishing classes of homogeneous property. For example, by considering the quality rating (i.e. fair, good, excellent) as a substitute for age and location, it may be possible to narrow the field of classes.

Classification and Valuation Approaches

When the cost approach is employed to value property, the same classification exercise needs be undertaken. In fact, the cost approach typically has the most well developed system of classification of all approaches to value. If a cost publication is employed, the assessor is valuing an improvement based upon a cost publication model where the values per square foot have already been established. The models contained in cost publications for property types such as industrial buildings, gas stations, golf courses, etc. are based on classes of property. Such publications also contain their own application guidelines and adjustment procedures.

Classification – Conclusion

The classification or stratification of properties into groups with similar physical characteristics and similar value-driven characteristics is the most important step in the mass appraisal valuation process.

The valuation guides contains some references to the types of property classes that can be expected and how to differentiate between classes.

With respect to the income approach, the central exercise in analyzing income type properties is the classification of lease spaces and property types into appropriate groups. While office buildings, for example, in a jurisdiction and/or market area can display a continuous range of appeal in terms of quality and location, these properties may be split into groups that establish and apply valuation parameters. The division of properties may not be clear or conform to preconceived notions of office quality, so the assessor will be prepared to consider alternatives in the grouping.

Ultimately, property classification depends upon the types (and values) of property found in each jurisdiction and/or market area. The fundamental means of determining the appropriate classes to employ is to collect the data and sort the properties into logical groups through comparison of their attributes.

Tabulating Results

After classifying the properties into groups, the assessor will need to consolidate the data. The following is an example of a tabulation of pertinent data for analysis by the Assessor.

Analysis of Food Court Rents – Regional Malls Example

	Mean	Median	Range
Store Size (sq. ft.)	155	153	85 – 300
Rent	$69.50	$71.25	$50 - $100

In this hypothetical example the food court leases in regional malls that are available for analysis range in size from 85 to 300 square feet with a mean of 155 square feet and a median of 153 square feet. The lease amounts range from $50 to $100 with a mean rent of $69.50 per square foot and a median rent of $71.25 per square foot. From the information in this example, all food court stores in regional malls could be valued using a median rental rate of $71.25.

In the valuation of shopping centres, similar rental rate valuation parameters would typically be established for the various classes of lease spaces in the mall. These classes may be numerous and very detailed or, they may be more broad-based. The decision on how to classify the lease spaces should be determined by the prevalent lease spaces in the jurisdiction and/or market area.

Central Tendency

The mean, median, and mode are all measures of central tendency that may be used to report valuation parameters. In large, normally distributed populations, the mean, median, and mode for the number of bedrooms in single family detached homes may be the same figure. For smaller groups or classes of property, the measure of central tendency selected should be the one that best reflects the average or typical property characteristic. In the analysis of smaller sample sizes the median is often selected as the measure of central tendency to use.

2.4 Apply Valuation Parameters Example

A standard quality office building example was selected to illustrate the valuation parameter process and how it can be applied.

Step 1: Identify the Variables and Valuation Parameters

As the Office Valuation Guide indicates, the assessor may collect some or all of the following information to help establish market value based assessments as of the base date:

Physical Data

- Typical office area;
- Ground floor / premium office area;
- Basement / storage area;
- Retail areas; and
- Parking space.

Qualitative Data

- Quality of the building in relation to other standard quality buildings.

Other Data

- Other income.

Valuation Parameters

- Typical market rents for various types of buildings and various types of space (office, retail, storage, etc.);
- Typical management and operating expenses;
- Typical vacancy and collection loss factors;
- Typical inducements;
- Typical non-recoverable expenses;
- Typical vacant space shortfall; and
- Capitalization rates.

Step 2: Collect the Data

The next step is to collect the data:

1. The existing assessment records for office buildings in the jurisdiction and/or market area are typically reviewed.

2. Requests for information are made to property owners (or the designated contact person).

3. Once the information is received from property owners the assessor will typically complete a preliminary sort to classify the properties. The following are an example of preliminary classifications:

   - Prestige or flagship;
   - Standard quality;

- Below average quality and standard; and

- Unknown – other.

4. The assessor may review the unknown properties to determine if they should be classified under another type of office building classification.

5. More thorough inspections of properties should be undertaken when required data is missing or in the case of a sale.

6. The data for each office building property is entered on the assessor's valuation system. An example of the type of information that may be collected is shown on the *Office Building Data Entry Example.(Refer to Figure 5.)*

Rent information is requested from owners. Often this information is provided to assessors in the form of rent rolls returned by the owners. Rental information is entered on the assessor's valuation system.

- Pertinent leases provide an indication of rents charged for an office space.

- Pertinent leases also include lease rates for retail, storage, and premium office building space.

Step 3: Analyse the Data

Tabulate the Property Data - Physical Characteristics

The next step in the process is to tabulate all the appropriate building variables and physical data about each property from the information collected. The results of a hypothetical analysis are shown in Tabulation Results – Standard Quality Office Buildings Physical Data Example. *(Refer to Figure 6.)* In the example municipality there are 15 standard quality office buildings and the appropriate physical data was determined for each of these office buildings.

Analysis of Physical Information

The physical information is listed along with the number of parking spaces and the reported vacancy rates. The mean, median, minimum, and maximum numbers are developed in this example to assist in the comparison and qualification of each property with respect to the typical standard quality office building.

Tabulate the Property Data – Valuation Parameter Information

The listing of physical data in the assessor's valuation system is followed by analysis of the rent rolls and financial information gathered from each property owner.

In the example, this information was received from standard quality office property owners. It is not practical to expect to obtain a return from each owner to establish the valuation parameters –a return from a reasonable number of property owners is considered sufficient.

Once the data is tabulated it is analysed to determine the nature and character of the standard quality office buildings.

Figure 5: Office Building Data Entry Example

Address		Base Date		
Building name				
Municipality		Measurements in	Square feet	
Assessment Roll #				
Office class	Standard quality			

Inspection notes	
Inspection date	
Office quality	Good Standard quality building - appears to date from early 1970s
Vacancies	Limited - partial vacancies on 3 floors
Extra features	Large foyer - used to be Prestige quality building
Parking	Underground - 100 spaces
Location	West end of office core
Tenant type	Multiple tenancies, New-Age Life occupies 3 full floors
Condition	Good
Other comment	

Building data	In sq. feet		Rentable area breakdown	
Total building area	98,550		Office	79,750
Typical floor rentable area	7,250		Ground floor/ premium.*	2,200
Building efficiency	88.4%		Retail	3,750
No. of storeys	12		Basement / storage*	1,400
No. of parking spaces	100		Total rentable	87,100
Year built	1973			
Year renovated			* Not including Retail rentable area	

Land / density	
Site area in sq. feet	26,454
Density ratio	372.5%

Figure 6: Tabulation Results – Standard Quality Office Buildings Physical Data Example

#	Address	Building Name	Class	Built	Typical floor	Floors	Rentable Area	Office Sf	Premium Sf	Retail Sf	Storage SF	Parking Spaces	Vacancy SF	Vacancy %
1	2360 Bristol Circle	Winston Corporate Centre	B	1992	10,000	4	40,000	35,000	0	1,400	3,600	119	4,000	10.0%
2	2381 Bristol Circle	Winston Corporate Centre	B	1990	10,000	2	40,000	34,200	1,600	1,250	2,950	125	0	0.0%
3	690 Dorval Drive	Town Corporate Centre	B	1989	15,500	7	102,000	91,500	3,600	2,400	4,500	400	10,805	10.6%
4	700 Dorval Drive	Town Corporate Centre	B	1983	13,180	7	99,500	92,000	7,500	0	0	320	25,836	26.0%
5	710 Dorval Drive	Otis Elevator	B	1985	14,560	7	102,000	96,000	0	500	5,500	350	41,324	40.5%
6	700 Kerr		B	1988	12,500	2	25,000	25,000	0	0	0	25	0	0.0%
7	277 Lakeshore	Royal Life	B	1981	20,000	4	80,000	70,000	10,000	0	0	225	6,810	8.5%
8	627 Lyons Lane		B	1976	8,700	4	34,800	32,000	0	0	2,800	69	6,500	18.7%
9	465 Morden Rd		B	1988	15,000	2	30,448	25,000	5,000	448	0	40	0	0.0%
10	247 North Service Rd	Birchtree Office Plaza	B	1990	6,300	3	19,000	19,000	0	0	0	45	3,700	19.5%
11	243 North Service Rd	Birchtree Office Plaza	B	1990	6,300	3	19,000	19,000	0	0	0	45	9,300	48.9%
12	251 North Service Rd	Birchtree Office Plaza	B	1990	6,300	3	19,000	19,000	0	0	0	45	4,412	23.2%
13	1075 North Service Rd	Ennisclaire Centre	B	1988	20,000	2	40,000	36,000	0	1,000	3,000	140	7,077	17.7%
14	2916 South Sheridan Way	Village Offices	B	1988	14,000	3	42,000	40,000	0	0	2,000	150	0	0.0%
15	1151 Bronte Road	Fuller Building	B	1978		2	50,000	30,000	14,500	3,100	2,400	185	0	0.0%
	Mean			1986.4	12,310	3.7	49,517	44,247	2,813	673	1,783	152	7,984	14.9%
	Median			1988	12,840	3	40,000	34,200	0	0	2,000	125	4,412	10.6%
	Minimum			1976	6,300	2	19,000	19,000	0	0	0	25	0	0.0%
	Maximum			1992	20,000	7	102,000	96,000	14,500	3,100	5,500	400	41,324	48.9%

Figure 7: Tabulation Results – Standard Quality Office Buildings – Valuation Parameters Example

#	Address	Total Area	Current Market Rental Rates					Rent Total	Other Income	Operating Recoveries	Total Income	Operating Expense	Net Income	Recovery per Sf	Shortfall per Sf @ 75%*	Non-recoverable**
			Office Rent / Sf	Premium Rent / Sf	Retail Rent / Sf	Storage Rent / Sf	Parking $ per Space									
1	2360 Bristol Circle	40,000	$11.45		$21.00	$2.50	$25.23	$402,077	$1,900	$247,436	$651,413	$311,345	$340,068	$6.87	$5.15	10.7%
2	2381 Bristol Circle	40,000	$10.00	$16.00	$16.00	$2.00	$25.00	$369,265	$0	$286,700	$655,965	$304,622	$351,343	$7.17	$0.00	4.9%
3	690 Dorval Drive	102,000	$11.50	$20.00	$19.00	$3.00	$0.00	$907,491	$0	$478,300	$1,385,791	$578,211	$807,580	$5.24	$3.93	6.3%
4	700 Dorval Drive	99,500	$12.00	$20.00			$0.00	$701,333	$1,478	$385,900	$1,088,711	$549,650	$539,061	$5.24	$3.93	8.9%
5	710 Dorval Drive	102,000	$11.75		$18.50	$3.00	$0.00	$640,320	$2,400	$365,222	$1,007,942	$598,100	$409,842	$6.02	$4.51	7.2%
6	700 Kerr	25,000	$9.75				$50.00	$235,250	$0	$194,500	$429,750	$235,682	$194,068	$7.78	$0.00	17.5%
7	277 Lakeshore	80,000	$11.50	$17.00			$55.56	$895,730	$0	$377,000	$1,272,730	$508,444	$764,286	$5.15	$3.86	11.7%
8	627 Lyons Lane	34,800	$9.50			$1.00	$80.00	$251,520	$0	$159,345	$410,865	$212,316	$198,549	$5.63	$4.22	10.1%
9	465 Morden Rd	30,448	$11.00	$17.50	$23.00		$0.00	$345,304	$0	$166,632	$511,936	$209,882	$302,054	$5.47	$0.00	12.5%
10	247 North Service Rd	19,000	$9.00				$0.00	$133,380	$1,566	$88,331	$223,277	$121,908	$101,369	$5.77	$4.33	13.0%
11	243 North Service Rd	19,000	$9.00				$0.00	$80,370	$0	$58,235	$138,605	$119,004	$19,601	$6.00	$4.50	23.5%
12	251 North Service Rd	19,000	$9.00				$0.00	$123,120	$0	$82,955	$206,075	$125,211	$80,864	$5.69	$4.26	19.0%
13	1075 North Service Rd	40,000	$11.50		$19.00	$1.00	$0.00	$353,200	$3,077	$211,346	$567,623	$259,981	$307,642	$6.42	$4.81	4.1%
14	2916 South Sheridan	42,000	$11.65			$2.50	$60.00	$467,418	$0	$232,859	$700,277	$277,300	$422,977	$5.54	$0.00	9.5%
15	1151 Bronte Road	50,000	$12.00	$18.00	$20.00	$3.00	$50.00	$681,450	$0	$315,660	$997,110	$411,244	$585,866	$6.31	$0.00	14.0%
	Mean	49,517	$10.71	$18.08	$19.50	$2.25	$23.05		$695						$2.90	11.5%
	Median		$11.45	$17.75	$19.00	$2.50	$0.00		$0						$3.93	10.7%
	Minimum	19,000	$9.00	$16.00	$16.00	$1.00	$0.00		$0						$0.00	4.1%
	Maximum	102,000	$12.00	$20.00	$23.00	$3.00	$80.00		$3,077						$5.15	23.5%

*   Vacant Space Shortfall @ 75% of CAM recovery is an arbitrary number, however amounts entered here tradeoff directly with Unrecovered Allowance

** Non-recoverable operating expense expressed as a % of total income before Operating and Tax Recoveries.

Valuation Parameters

	Median	Mean	Min	Max	Range	
					Bottom	Top
Vacancy	10.6%	14.9%	0.0%	48.9%	9.0%	15.0%
Vacant Space Shortfall	$3.93	$2.90	$0.00	$5.15	$2.50	$4.25
Non-recoverable expense	10.7%	11.5%	4.1%	23.5%	8.0%	13.0%

Date: June 27, 2012

Market Value Assessment in Saskatchewan Handbook
Valuation Parameters Guide

Analysis of Rental Valuation Parameters

Analysis of the rent rolls produces a list of leases in each standard quality office building. These leases indicate the market rent for the various types of space found in each office building, such as office space, premium office, various classes of retail space, and storage space. From these individual forms the rent conclusions are typically consolidated in the assessor's valuation system, an example of which is presented in: Tabulation Results – Standard Quality Office Buildings – Valuation Parameters Example. *(Refer to Figure 7.)*

In analyzing rents, the objective is to determine the net amount paid that is attributable to the real estate. *(Refer to Section 3.0 "Determining Market Rents".)*

The objective is to determine what the typical rents should be for each type of space as of the base date through the analysis of available market data. An example this type of analysis is presented in Typical Standard Quality Office Building Rents Example. *(Refer to Figure 8.)*

Figure 8: Typical Standard Quality Office Building Rents Example

	Standard Quality		
Typical Rent per Square Foot	Low	Median	High
Office Space	$9.50	$11.45	$12.00
Ground Floor/Premium Office	$16.00	$17.75	$20.00
Retail	$16.50	$19.00	$22.00
Basement/Storage	$2.00	$2.50	$3.00
Parking Spaces per year		$300.00	
Capitalization Rates	8.5%	10.0%	11.0%

Analysis of Other Financial Data Valuation Parameters

Along with rents, a number of other valuation parameters are considered. Parking revenue, other income, operating recoveries, operating expenses, non-recoverable expenses and vacant space shortfall are analysed. Through this analysis, and following the methodology presented in the office building valuation guide it, was determined that there is not enough consistency in the parking revenue or the other income to develop parameters for this example.

The differences between operating recoveries and operating expenses are accounted for in the non-recoverable operating expenses and the vacant space shortfall.

Therefore, along with the rental rates, two other valuation parameters that may be developed for the analysis of this financial data:

- Non-recoverable operating expense; and
- Vacant space shortfall.

Non-Recoverable Operating Expense Allowance

The allowance for non-recoverable expenses is the amount of operating expenses remaining (excluding mortgage, interest, and debt repayment) after operating recoveries and after deducting the vacant space shortfall allowance, divided by the total income (rental plus other income).

Vacant Space Shortfall

The vacant space shortfall reflects the operating expense recoveries that must be met by the property owner for expenses associated with operating vacant space. In the example in *Figure 7*, this amount was hypothetically set at 75% of the actual operating recovery rate per square foot**.** This reflects that it does not cost as much to operate vacant space as it does to operate occupied space.

Vacancy Rate Valuation Parameter

To develop the valuation parameter for the vacancy allowance, a number of sources of data should be considered:

- Any current and previous vacancy information collected from the owners. *(Refer to Figure 6.)*
- Information collected by local realtors.

  The vacancy rates as presented in *Figure 7* are the result of this analysis.

Capitalization Rate Valuation Parameter

The only remaining valuation parameter to be determined before the value of standard quality office buildings can be completed are the capitalization rates to be employed. Capitalization rate analysis is outlined in *Section 4.0*. The results of a typical capitalization rate analysis for standard quality office buildings are presented in *Figure 8* along with the rental rate information.

Step 4: Apply the Parameters to Develop a Value

An example of summary data on typical net market rents, typical vacancy rates, and the other valuation parameters researched and established for a valuation model that enables the assessor to calculate the appropriate market value based assessment for an individual property is presented in *Office Building Valuation Summary Example*. *(Refer to Figure 9.)*

Figure 9: Office Building Valuation Summary Example

Office address			Base Date	
Class of building	Standard quality		Assessment Roll #	

Type of Space	Rentable area in sf	Net market rent per sf	Market rent - Total
Office	79,750	$12.00	$ 957,000
Ground floor/ premium*	2,200	$18.00	$ 39,600
Retail	3,750	$20.00	$ 75,000
Basement / storage*	1,400	$3.00	$ 4,200
No. of parking spaces	100	$1,200.00	$ 120,000
Potential gross income	87,100 sf		$1,195,800

* Excluding retail areas

Vacancy rates		Comments
Typical office %	5.0%	
Retail %		not applicable

Valuation parameters		
Other income	$ 4,700	temporary lobby rentals
Vacant space shortfall $/	$4.50	
Non-recoverable expenses	8.00%	
Capitalization rate %	9.00%	
Land value $ per		
Other $ value	$ 0	

Effective gross income		
PGI		$ 1,195,800
Other income		$ 4,700
Total PGI		$ 1,200,500
Office vacancy	5.0%	$ 60,025
Retail vacancy	na	$ 0
EGI		$ 1,140,475

Net operating income		
Vacant space shortfall		$ 19,598
Non-recoverable expenses	8.0%	$ 91,238
NOI		$ 1,029,639

Vacant space shortfall	
Typical vacancy	4,355
Costs per sf	$ 4.50
Shortfall	$ 19,598

Value breakdown	
Site area	26,454
Land value per sf	$ 0
Land value	na
Building value	na

Market value		
Capitalization rate		9.00%
Value sub-total		$11,440,433
Other value		$ 0
Market Value Based Assessment		$11,440,000

2.5 Statistically Testing Market Value Based Assessments

(Refer to the Glossary for definitions related to statistical testing.)

Statistical Testing in Mass Appraisal

The final step in mass appraisal is to test the quality of the value estimates produced by the mass appraisal valuation models. Although statistical testing may be performed throughout the modelling process, once the model is calibrated and completed the resulting assessed values should allow for statistical testing for properties under the Market Valuation Standard.

Quality control in mass appraisal is handled differently than in single property appraisal. In single property appraisal, the appraiser focuses on the valuation of a single parcel, and reconciles value estimates by identifying the most representative data for the property being valued to arrive at an estimate of value. In mass appraisal, the assessor values large groups of properties by means of modelling and statistical analysis, and reconciles the quality of the mass appraisal value estimates through statistical testing to achieve the best quality results for the group of properties as a whole.

Measuring Mass Appraisal Performance

The assessor's goal, through the various valuation models, is to determine fair and equitable market value based assessments using mass appraisal methodology. The primary tool used to measure mass appraisal performance is the ratio study.

Ratio Studies

Ratio studies are a recognized method to compare assessed values to market values. The Assessment to Sale Ratio (ASR) is the most common indicator to measure how the assessed value compares to the sale price of the property.

$$ASR \ = \ \text{Assessed Value / Adjusted Sale Price}$$

It is expected that individual ASRs will not result in 1.00 (meaning that each property is assessed exactly at its sale price). A target overall ASR of 1.00 suggests that individual high and low ratios may balance so that the total of the assessed values is near 100 percent of the total of the sale prices.

There are two aspects of mass appraisal performance that are typically measured to determine the accuracy and equity provided by mass appraisal models: appraisal level (accuracy) and level of appraisal uniformity (equity).

Appraisal Level

Appraisal level refers to the overall or typical ratio at which properties are appraised in mass appraisal models. In mass appraisal, appraised values rarely equal their indicators of market value (i.e., sale prices), but over-appraisals should balance under-appraisals so that the typical close to 100%.[2]

Level of Appraisal Uniformity

Appraisal uniformity refers to the fair and equitable treatment of individual properties. Uniformity requires two things: (1) equity *within* groups - that properties are appraised equitably within groups or categories (e.g. property classes, neighbourhoods); and (2) equity *between* groups - that each of these groups are appraised at the same level or ratio of value.[3]

Measures of Appraisal Level

Measures of appraisal level are calculated using statistical measures of central tendency. Measures of central tendency reflect the typical level of appraisal as a single statistic or number. The three most common statistical measures of central tendency are the median, mean (or average) and weighted mean. The most common measure of central tendency used in mass appraisal is the median because it is less influenced by outliers.

Measures of Appraisal Uniformity

Appraisal uniformity within groups is measured by determining the magnitude of the differences between each individual ratio of appraisal level (ASR) and the average ratio (ASR) of the group. Appraisal uniformity between groups is measured by comparing the measures of average appraisal level calculated for each group of properties.

The primary measure of appraisal uniformity in ratio studies is the Coefficient of Dispersion (COD). Low CODs tend to be associated with good appraisal uniformity. The COD also indirectly measures the quality of the appraisal process by which mass appraisal modelled values are developed.

Regulated Statistics in Saskatchewan

Provincial legislation establishes a "primary audit" which requires the overall level of appraisal (median ASR) for a municipality to be within an acceptable range as prescribed in regulations (0.98 to 1.02). This overall median ASR is determined for a municipality using the sales of all residential and commercial improved properties. The methodology for calculating the median assessed value to sale price ratio is set forth in the *Saskatchewan Assessment Manual*.

Provincial legislation also requires the Saskatchewan Assessment Management Agency (SAMA) to establish quality assurance standards that must be met pursuant to the Market Valuation Standard. Any such quality assurance standards related to mass appraisal statistics that are established or amended from time to time, may be accessed through SAMA's public website (www.sama.sk.ca).

---

[2] Eckert, Joseph K., Ed. *Property Appraisal and Assessment Administration*. (The International Association of Assessing Officers, Chicago, 1990), p.516.
[3] Ibid., p.516.

Other Statistical Tests

While no further statistical tests are mandatory in Saskatchewan, the assessor may consider calculating ASRs or other statistics for property classes, valuation models or property groups.

There are many other statistical tests available to the assessor that may be used for general or specific statistical purposes. A good resource for these statistical tests and their uses is the IAAO publication entitled *Property Appraisal and Assessment Administration*.[4]

---

[4] Eckert, Joseph K., Ed. *Property Appraisal and Assessment Administration*. (The International Association of Assessing Officers, Chicago, 1990).

3.0   Determining Market Rents

Many properties earn income. This income may be in the form of rent assignable to the real estate, such as a lease space in a shopping centre, or it may be in the form of income earned by the business operating the real estate, such as a hotel. In either case, the objective in analyzing income is the same. The objective is to determine the net amount paid to the owner that is attributable to the real estate.

Once the income generated by the property is determined, its value can be estimated.

Types of Rent

Rents can be net in which the tenant pays all taxes and operating expenses separately from rent, or rents can be gross where the tenant makes one payment to the property owner, and the property owner is responsible for all taxes and operating expenses, or some arrangement in-between.

- When tenants pay net rents, only a few adjustments are made to the income stream to reflect the net operating income to the property owner.
- If tenants pay gross rent, all appropriate operating expenses must be deducted from the income collected to establish the net operating income.
- When tenants only pay a part of the expenses in addition to their rent, the appropriate adjustments and deductions will have to be made in order to establish the net rent.

Business Income versus Real Estate Income

To establish real estate value, the income approach is used to determine the income that can be solely attributed to the property. Many properties earn income and businesses that operate on those properties also earn income. The income attributed to the business is not assessable and should not be included in the value of the real estate. However, for many properties the distinction between property income and business income is not clear. For example, a hotel rents rooms, operates a restaurant and generally provides many other services. In many cases a portion of the income is directly attributable to the management of the hotel and not the real estate, but distinguishing between the two types of income may be challenging.

When analyzing income and rent, the objective is to determine the net amount paid to the owner that is attributable to the real estate. For those properties where income must be divided into real estate and non-real estate components, the property analysis should include any assumptions and rationale involved in the process.

Adjustment of Rents

Although many rents appear to be net, not all leases are based upon this arrangement. The best way to be certain about the nature of the rental arrangements between the landlord and tenant is to read and interpret the lease. Fortunately, most leases in shopping centres, office buildings, or apartment buildings are very similar. However, two factors arise that produce exceptions to this rule:

1. Some tenants, such as department stores, insist upon, and have the ability to complete their own lease arrangements. These leases are generally different from the common leases signed by other tenants.

2. Leases change over time. Therefore, some older leases may possess more dated language and conditions.

Lease Analysis

There are several key elements in a lease between the property owner and tenant:

1) The quality, location, and incentives given to the tenant in respect of the monies paid. For example, there may be cash incentives or free rent, or the rent may include services, appliances, or furniture.

2) The type of rental payment may range from fixed payments; step-up leases where rents are raised (or lowered) on a set schedule over a period of months or years and/or leases that include sales based performance clauses (percentage or overage rent).

3) The term of the lease or the number of years (or months) it is expected to run and the various renewal options.

4) The operating expenses that are expected to be met by the tenant, for example, power, heat, interior maintenance, snow removal, etc. In addition, the lease may describe the rights of the tenant to review, question, or appeal these expenses.

There are many individual factors contained within each lease. The importance of recognizing the differences between leases arises both in the analysis of value and in the comparison of value from one property to another.

Determining Market Rents as of the Base Date

Actual versus Typical Market Rents

Income analysis begins with the collection of actual rental data. The assessor can only be satisfied that actual rents are representative of market rents by analyzing similar properties in the marketplace. To be satisfied that the income approach produces an appropriate market value based assessment, a study of typical market rents and market conditions as of the base date, should be completed. The assessment system requires that a property be valued under market conditions and to ensure that market value based assessments are being generated, typical rents and typical valuation parameters should be studied and applied. This is a requirement of the Market Valuation Standard set forth in Saskatchewan legislation.

Base Rent

To establish the market value based assessment of a property, the income calculation must be based upon the appropriate typical market rent for the leasable spaces.

1. Typically the primary source of market rent information is the rent roll. Rent rolls provide the following evidence of market rents:

   • Actual leases signed as of the base date;

   • Actual leases within the first three years of their term as of the base date;

   • Current rents as of the base date for similar types of lease spaces in the same property, and;

   • Older leases with active overage rent or step-up clauses.

2. As a secondary source of rent information and as a check on the rents derived from the rent rolls, the rental rates can be compared to the rents established for similar lease spaces in other similar properties.

3. Other sources of rental information such as industry publications may also be consulted as a further check on market rent information.

Overage Rent

Overage rent and percentage leases may form a minor or significant portion of the rent collected in a shopping centre or other commercial retail establishments.

Overage rent is a percentage of rent paid in addition to base or guaranteed minimum rent. For example, for retail properties overage rent usually reflects a percentage of the value of the sales over a certain benchmark (e.g. 3% of gross sales valued during the year above $1,000,000). Percentage leases are a lease that provides for rent payments to be based upon a percentage of income (gross or net) with a guaranteed minimum payment. Overage rent is added to the base rent in order to determine the net rent paid to the owner.

Sometimes information on overage rent is provided on a rent roll but more often it is found as a summary figure on the income and expense statement. If the rent roll specifies the overage rent for each tenant, the net rent to the owner is the sum of the base rent plus the overage rent. However, if the overage rent is totalled on the income and expense statement, some adjustment to tenant rents may be necessary to establish the market rental rates.

The use of overage rent for mass appraisal purposes requires careful analysis based on data and market observations. Overage rent may be subject to greater fluctuations than regular rent given that it is based in part on business income. The assessor must ensure that the rent amount determined using overage rent reflects the value of the real estate only. It is therefore up to the discretion of the assessor whether to include overage rent in the determination of typical rent as of the base date.

Tenant Improvements

Using the cost approach or the income approach, individual fixtures are assessed as part of the valuation process. If an item is assessable and if it adds value to the real estate, then it should be valued. Using the income approach, the market rent established for finished space will capture the value of these fixtures without having to independently cost and depreciate each tenant improvement.

To determine whether an item has value the assessor should take the view of a tenant and then the owner:

- Will the tenant pay more rent if the space is finished or unfinished?
- Will the owner be able to charge more rent for finished space?

If the answer to either of the questions is "yes", the amount of rent the tenant would pay for the finished space needs to be determined and used as the basis of the value. If the answer is "no" (as is the case for most shopping centre tenants), then it does not matter if the space is finished and the tenant improvements do not add value to the property.

Rent Adjustments – Inducements

In order to establish the typical net market rent in situations where the tenants receive inducements, it is necessary to analyse the terms and conditions of these inducements.

Landlords may offer inducements to tenants in order to attract them into the building. Generally speaking, the amount of inducements is higher in times of higher vacancies. Inducements can consist of one or more of the following.

- Cash payments for various reasons;
- Periods of free rent;
- Lease buy-outs.

Tenant inducements are common at certain points of time for some types of properties such as offices buildings or shopping centres. These rental arrangements may require adjustment in order to produce net rent.

Inducements must be considered when establishing the appropriate market rent for the space. The value of the inducement spread out over a reasonable term should be deducted from the base rent.

The only exception to this rule is when the inducement adds value to the real estate. If the rent charged for finished space is higher than for unfinished space, in an office building for example, then the value of the inducement does not need to be deducted from the base rent.

The rationale for deducting inducements is found in the determination of the market rent for a store. For example, if a department store signs a new 25-year lease for $700,000 per annum in rent and receives back $2,000,000 in inducements, then the real net rent paid is somewhat less than $700,000 per annum.

The effect of an inducement can be determined as follows:

Inducement per sf = Total Inducement ÷ Store GLA ÷ Term of Lease

In this department store example, the effect of the inducement (without considering the time value of money) would be as follows:

Department Store	135,000 sf
Lease	25 years
Inducement:	$2,000,000
Inducement per sf = $2,000,000 ÷ 135,000 ÷ 25 = $0.59 /sf	

The contract rent paid by the department store is $5.19 per square foot ($700,000 ÷ 135,000). After allowing for the inducement the net effective rent is $0.59 lower than the contract rent or $4.60 per square foot.

Information on inducements can be found in the Letter of Intent, the Offer to Lease, and/or within the lease. The best way to obtain information on inducements is to contact the owner and/or the tenant.

Rent Adjustments – Common Area Maintenance Charges

Tenants of a shopping centre may be partially responsible for the expense of operating the shopping centre and maintaining the common areas. Most leases provide for the recovery of Common Area Maintenance (CAM) as part of the rental payments made to the landlord. In a simplified world, all tenants would cover all the expenses attributable to their existence in the property and no adjustments would be required for CAM charges. The reality of the market place may be different.

- CAM expenses are not generally reported in a way that allows them to be appropriately assigned to each tenant.
- Some tenants, such as department stores, often limit the amount of CAM they will pay (e.g. $1.00 per square foot to be increased in five-year intervals by the change in the Consumer Price Index).

When the rental arrangements of a tenant do not reflect the actual CAM expense attributable to that tenant, the actual rent received by the owner may be higher or lower than the base rent. In such cases adjustments may have to be made for the excessive or deficient CAM payment.

In a shopping centre, the landlord may establish the total CAM expenses, deduct the amount contributed by the anchor stores, and split the remainder among the CRU tenants according to their square footage.

It follows that in any shopping centre where the contract rent of a major tenant includes some limit on the amount of CAM paid, then an adjustment may be required to establish market rents.

Market Rent Conclusion

Market rent may be determined as follows:

$$\text{Market Rent} \ = \ \text{Base Rent} \ + \ \text{Overage Rent} \ - \ (\text{Inducement} + \text{CAM Adjustment})$$

4.0 Establishing Capitalization Rates

4.1 Critical Concepts

Capitalization Rates

The *Dictionary of Real Estate Appraisal, 3rd Edition* defines the capitalization rate as "any rate used to convert income into value"[5]. Lincoln North has a more explicit definition: "A capitalization rate is broadly defined as a percentage rate which relates the net operating income of a property to its most probable selling price, or market value. If the net operating income being capitalized is the current year's net earnings, then no adjectives are needed to further define this type of a current earnings ratio. On the other hand, if the net operating income being capitalized represents the average annual net earnings over a given period of time, the capitalization rate is usually referred to as an overall capitalization rate."[6]

Capitalization Rate Theory

Traditionally, capitalization rates have represented the relationship between the net operating income of a property and its market value. According to appraisal theory direct capitalization converts or "capitalizes" the expected level of potential net income into an estimate of market value using an overall capitalization rate. This relationship does not imply that net earnings are expected to remain the same throughout the tenure of ownership. They are very likely to rise or fall in the same way that gross earnings fluctuate with changing market conditions. What is significant about all earnings ratios is that earnings are used as the unit of comparison simply because they are either known amounts or can be estimated with relative certainty.

For mass appraisal purposes in Saskatchewan, market value based assessments must reflect typical market conditions for similar properties as of the base date. For that reason, typical potential net operating income that reflects market conditions as of a given base date is used to determine both capitalization rates and to apply capitalization rates in determining market value based assessments.

4.2 Methods of Analysis for Deriving Capitalization Rates

Ideally, the assessor would have available all the information which the buyers and sellers had at the time that market transactions were negotiated. This may include but is not limited to the following types of information:

---

[5] *The Dictionary of Real Estate Appraisal*, *3rd Edition* (Appraisal Institute, Chicago)
[6] North, Lincoln, *Real Estate Investment Analysis and Valuation* (1976, pp. 142-143)

Property and Financial Information Examples

Hotels

- Income and expense statements;
- Capital expenditures;
- Expenditures for Furniture, Fixtures and Equipment (FF&E);
- Property specific market survey;
- Hotel industry market survey, and;
- Recent building and environmental survey.

Office Buildings

- Leases for all major tenants;
- A detailed rent roll;
- Administrative costs, Common Area Maintenance (CAM) and tax recoveries;
- Floor plans for the office building showing location of individual tenants;
- Income and expense statements;
- Details of recent leases as close to the transaction date as possible;
- Information concerning expected tenant renewals and vacating tenants;
- Vacant space and assumptions concerning market rents and leasing assumptions;
- Tenant leasing costs including inducements and commissions;
- Office market survey, and;
- Recent building and environmental survey.

Shopping Centres

- Leases for all major tenants;
- Sample leases for ancillary tenants or Commercial Retail Units (CRUs);
- A detailed rent roll;
- Sales performance for individual tenants (in order to establish percentage rents);
- Administrative costs, Common Area Maintenance (CAM) and tax recoveries;
- A leasing diagram of the shopping centre showing the location of individual tenants;
- Income and expense statements;
- Details of recent leases as close to the transaction date as possible;
- Information concerning expected tenant renewals and vacating tenants;
- Vacant space and assumptions concerning market rents and leasing assumptions;
- Tenant leasing costs including inducements and commissions;
- Expansion possibilities;
- Budgeted capital expenditures;

- Property specific retail market survey, and
- Recent building and environmental survey.

Sales Transaction Information

- Agreement of purchase and sale;
- Due diligence documents;
- Title search;
- Deed of transfer;
- Financing documents;
- Appraisals, and;
- Interview buyer and seller regarding motivation.

Analysis of Information

The information above should be analysed to satisfy the following types of issues:

Financial Information

- Leases should be examined to establish expense recovery shortfalls.
- The actual vacancy in the property will need to be stabilized to reflect typical vacancy as of the base date on the basis of an analysis of the current and historical vacancy in the property and comparable properties.
- Analyse current and historical expenses and recoveries based on income expense statements. This will show the type and extent of management, Common Area Maintenance (CAM) and tax costs and recoveries.
- In shopping centres, the leasing diagram assists in establishing the rental pattern within the shopping centre. Certain locations are more desirable and others less so. Different rents are paid for various classes of lease spaces. The market rents should differentiate by type of lease space where applicable (e.g. fast food tenants versus CRUs). Shopping centre rents vary by size and location.
- Market surveys for different classes of property will show the vacancy and occupancy trends that were prevalent as of the base date.
- For hotel properties, the market survey will establish parameters for room rates and occupancy trends.

Transaction Information

- Title searches establish type and mix of ownership.
- Was the transfer fee or leasehold?
- Did the transfer involve a partial interest?
- How was the transfer financed?
- Interview sellers, brokers, and buyers to establish motivation.

- Was the sale a forced sale?
- Was the sale a portfolio part interest or share sale?
- Does the buyer intend to redevelop?

Conclusion

Since buyers set the price through a process not always available to the assessor, standardized assumptions may not be made concerning the net income information usually provided. It is rare that all the information outlined in the previous section is available on every transacted property. As a result, assessors may also rely on information provided by interviews with buyers, sellers, brokers, appraisers, and more recently investment brokers. Most assessors rely to some extent on second-hand sources as they can rarely obtain sufficient information for an in-depth review of property financial and transaction data.

In a given jurisdiction and/or market area there may be a large volume of office, retail and hotel property sales, combined with the large number of portfolio transactions. In general more time will be required on the analysis of major sales and portfolio transactions than on simple or straightforward transactions. Analysis of real estate transactions necessitates the maintenance of relationships with buyers, sellers, brokers and appraisers and a degree of trust. As such, documentary support for individual transactions is not always available.

5.0 Appendices

A. Summary of Valuation Parameters Examples

Note: The following are examples of hypothetical valuation models and their associated valuation parameters for various property types. The formulas are simplified and abbreviated versions of the valuation process. Refer to each valuation guide for more details on valuation procedures.

Variable Key

BU	Bushels	MR	Market Rent
CAP	Capitalization Rate	OAC	Overall Capitalization Rate
CR	Cost Rate	OE	Operating Expense
CF	Cubic Feet	OI	Other Income
DPN	Depreciation	PAR	Avg. Room Rate per Available Room
FFE	Furniture, Fixtures and Equipment	PCF	Sales Price per Cubic Foot
GIM	Gross Income Multiplier	PSF	Sales Price per Square Foot
GLA	Gross Leasable Area	SF	Square Feet
GR	Gross Rent	UE	Unrecovered Expense
INT	Intangibles	V	Vacancy

Guide	Formula Example: Value =	Valuation Parameters (Determined for each class or stratification of similar property)
Shopping Centres - Example	Income Approach to Value ((GLA x MR) + OI –V – UE) / CAP	MR typical rents according to class of centre and type of store V typical vacancy rate - % of income UE typical non-recoverable expense and vacant space shortfall CAP capitalization rates determined from market
Hotels / Motels - Example	Income Approach to Value ((Rooms x PAR) + OI – OE – FFE) / CAP	PAR stabilized avg. room rates - normalized to typical market rates by class of hotel OE operating expenses stabilized and normalized to typical for class FFE typical deduction by class CAP capitalization rates determined from market
Office Buildings - Example	Income Approach to Value ((GLA x MR) + OI –V – UE) / CAP	MR typical full floor net rents according to class of office and type of space V typical vacancy rate - % of income UE typical non-recoverable expense and vacant space shortfall CAP capitalization rates determined from market
Multi-Residential - Example	Income Approach to Value Units x GR x GIM Or ((Units x GR) - V - OE) / CAP	GR typical gross rent per unit by class of building GIM gross income multiplier – from market sales analysis OE typical operating expenses by class of bldg. CAP capitalization rates determined from market
Commercial Strip Properties - Example	Income Approach to Value ((GLA x MR) + OI –V – UE) / CAP or GLA x GR x GIM	MR typical rents according to class and type of store V typical vacancy rate - % of income UE typical unrecovered management expense and vacant space shortfall. CAP capitalization rates determined from market GR typical gross rent by class of strip comm. GIM gross income multiplier

Continued

Guide	Formula Example: Value =	Valuation Parameters (Determined for each class or stratification of similar property)
Golf Courses – Example	Cost Approach to Value Improvements x CR – DPN + Land Or Income Approach to Value (INC – OE) / OAC	CR cost rates from cost publications– include golf course improvements, by course type DPN from cost publications or market sales INC typical stabilized income by course type OE typical stabilized expenses by course type OAC rate from market sales analysis
Warehouses – Example	Cost Approach to Value SF x CR – DPN + Land Or Sales Comparison Approach to Value PCF x CF Or Income Approach to Value ((GLA x MR) + OI –V – UE) / OAC	CR replacement costs per square foot from cost publications DPN depreciation from cost publications and/or market PCF from market sales analysis by class of warehouse MR range of typical rents according to class of warehouse V typical vacancy rate - % of income UE unrecovered expense and vacant space shortfall OAC capitalization rates determined from market
Grain Elevators – Example	Cost Approach to Value BU x CR – DPN + Land	CR replacement costs per square foot from cost publications DPN depreciation from cost publications and from obsolescence studies
Gas Stations – Example	Cost Approach to Value Improvements x CR – DPN	CR replacement cost rates from cost publications DPN from cost publications or market sales
Manufactured Home Communities – Example	Income Approach to Value [((Sites x GR) + OI -V - OE) / OAC] + Building Value	GR typical gross rent V typical vacancy rate - % of income OE typical stabilized expenses OAC capitalization rates determined from market Building Value = Building value determined by market sales analysis by type and square foot or by the Cost Approach to Value

6.0 Valuation Parameters Guide

Subject Index

A

Actual versus Typical Market Rents 32
Adjustments to Rents 31-35
Approaches to Value
  Cost 5, 18, 33, 42
  Income 5, 19, 31-33, 41-42
  Sales Comparison 5, 42
Assessed Value 1, 28-29
Assessor 2-4, 6, 11-13, 15, 17-21, 25-26, 28, 30, 32-
  33, 36, 39
Assessment Records 6, 11-13, 20

B

Base Date 1, 2, 5, 20, 22, 25, 27, 32-33, 36, 38
Base Rent 32-35
Business Income 31, 33
Buying/Selling Motivation 1, 11, 36, 38-39

C

Canada Mortgage and Housing Corporation
(CMHC) 15
Canadian Directory of Shopping Centres 15
Capitalization Rate 3, 5, 20, 26-27, 36, 40-42
Capitalization Rate Definition 36
Classification Guidelines 17-21
Common Area Maintenance (CAM) 35, 37-38
Cost Publications 18, 42

D & E

Data
  Analysis 15-16, 21, 25
  Collection 5, 7, 13, 32
  Sorting/Classifying 16-19
  Tabulation 19, 21, 23-25
Depreciation 11, 40, 42

F & G

Fee Simple 1-2
Formulas 2- 3, 40-41
Furniture, Fixtures & Equipment (FF&E) 37, 40
Gross Rents 31, 40-42

H & I

Income Stream 31
Inducements 20, 34, 37
Information
  Analysis 16-19, 21, 38-39
  Sources 6, 15, 33, 39

Information Services Corporation 6, 11
Inspections 6-7, 11-12, 21-22
Interviews 11, 38-39

J, K & L

Land Titles Office
  see Information Services Corporation
Lease Analysis 32
Legislation, Market Value Based Assessment in
  Saskatchewan 1
Letter of Intent, the Offer to Lease 34
Location 3, 12, 18-19, 22, 32, 37-38

M

Management (Expense) 10, 20, 31, 38, 41
Market Conditions 1-2, 5, 32, 36
Market Rent 20, 25-27, 31-35, 37-38, 40
Market Valuation Standard 1-2, 4, 16, 28-29, 32
Market Value 1, 27-29, 36
Market Value Based Assessment 1, 3-5, 16-17, 20,
  26-28, 32, 36
Market Value Based Assessments Definition 1
Mass Appraisal 1-2, 5, 16-18, 28-29, 33, 36

N

Net Income 36, 39
Net Operating Income 27, 31, 36
Net Rent 31, 33-34, 41
Non-Real Estate 31

O

Operating Expenses 3, 10, 20, 25-26, 31-32, 40-41
Overage Rent 10, 32-33, 35
Owner (or the designated contact person) 7-13, 15,
  20

P & Q

Physical Characteristics 3, 18, 21
Property
  Classification 17-19
  Inspection 6, 11-12
  Quality Ratings 18

R

Recoveries 10, 25-26, 35, 37-38
Rent Roll 7, 9, 11, 21, 25, 32-33, 37
Rental Arrangements 17, 31, 34-35

S

Sales 3, 5, 7, 11-12, 29, 32-33, 37-42
Single Property Appraisal Techniques, Use on
Appeal 1, 28
Stabilized 38, 41- 42
Statistical 1, 3, 5, 15, 28-30
Statistics Canada 15
Stratification 17-18, 41

T

Tenant Improvements 33
Tenant Inducements 34
Tenants 22, 31-35, 37-38
Test 1, 5, 28, 30

U, V & W

Unrecovered Expenses 40-42
Vacancy 11, 15, 20-21, 26-27, 38, 40-42
Valuation Guides, Use of 2, 4-5, 15, 19-20, 25, 40
Valuation Parameters 1-5, 12, 16-21, 24-27, 32, 40-
  41
Valuation Process 2-3, 5, 13, 16, 18, 33, 40
Variables 2- 3, 5, 13, 16, 18-21, 40

X, Y & Z

Zoning 3