The Appraisal of Real Estate – *Third Canadian Edition* –

EXAM REVIEW NOTES

Chapter One – Real Property and Its Appraisal

Introduction

- **Land provides the foundation for social and economic activities for the people who inhabit and share it.**
- **Land is investigated and analyzed in a variety of disciplines – the government, law, geography, economics, and environmental studies**
- **The concepts of real property differs among the various disciplines:**

Legal; consideration of ownership and use
Economic; as an agent of production
Sociology; as a resource and commodity
Finance; as value in exchange
Geography; physical elements and related activities

- **All disciplines have common understanding of land attributes: uniqueness, physical immobility, durability, utility and finite supply**
- **Value is an economic concept based on these aspects of land**
- **Values is determined by the actions and attitudes of people in response to social and economic factors, the constraints of law, and legal encumbrances**

Concepts of Land

Geographic and Environmental

- **Each parcel is unique in physical attributes and location which impacts its utility and highest and best use. Adjacent properties are still considered unique**
- **Various processes including physical, biological, chemical, and socioeconomic affect human habitation and activities on land. This will in turn affect the value of land**
- **Land has many uses including agricultural, commerce, residential and recreational**
- **Land use is affected by climate, topography and distribution of natural resources, population, industry and current trends in these areas**
- **Land's geography provides the background that appraisal requires regarding natural resources, location of industry, actual and potential markets**
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Government and Legal

- **Laws reflect the rights and obligations associated with various interests in land**
- **Land includes the ground, what is under and over it, as well as what is attached. Mineral rights are not included in Canada**
- **Canadian law has defined the government's land use controls at federal, provincial, municipal and First Nations levels**
- **Ownership rights are subject to law and value of these rights are a focus of appraisal**

- **Appraisers must consider easements, access and use restrictions, and the recording and conveying of titles. The information is recorded by a government agency and available at the**
- **Appraisers must be familiar with local and provincial laws, which constitutionally have primary jurisdiction over land**

Economic

- **Land ownership has rights that can be legally limited by government statutes**
- **Land ownership is a form of wealth and therefore an object of value**

Social

- **Modern society is concerned with land use and how rights are distributed because land is fixed in quantity… but land can be modified, destroyed and sometimes created**
- **Increased demand puts pressure to use land more intensively**
- **Laws are intended to serve the public good**
- **Currently the principle restrictions on land use in Canada arise from planning and zoning provisions**
- **Changing land use controls affect the nature and extent of private ownership, hence values**
- **Land use controls determine what and where development can occur and those activities allowed subsequent to development. Recent efforts include increased air and water regulation**
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Real Estate, Real Property and Personal Property

<u>REAL ESTATE</u> – Land, buildings, and other affixed improvements, as a tangible entity

- **Real estate is immobile and tangible; it includes land and all things attached, whether natural or created by humans**

<u>REAL PROPERTY</u> – The interests, benefits, and rights inherent in the ownership of real estate

- **A right or interest is also referred to as an estate in land, is determined by duration and may be either freehold or leasehold**
- **The total range of ownerships interests is called the *bundle of rights***
- **Ownership bundle consists of the right to: use, sell, lease, enter, give it away or do nothing. Each may be separated and traded in the marketplace**
- **Restrictions on the bundle are placed by common law and all levels of government.**

<u>REAL ESTATE</u> – Land, buildings, and other affixed improvements, as a tangible entity. Also includes items that have been installed or attached to the land or building in a rather permanent manner. All real estate improvements were once personal property; when attached to the land, they become real estate

<u>PERSONAL PROPERTY</u>- Movable items of property that are not permanently affixed to, or part of, the real estate. Personal property is not endowed with the rights of real property ownership

<u>TRADE FIXTURES</u> – Unlike fixtures, which are regarded in law as part of the real estate, trade fixtures are not real estate endowed with the rights of real property ownership. They are personal property regardless of how they are affixed. A trade fixture is to be removed by the tenant when the lease expires unless this right has been surrendered in the lease – Also known as a chattel fixture

- **Appraisers must distinguish between real estate, real property, personal property and trade fixtures**

Appraisal Practice

- **In Canada, the *Appraisal Institute of Canada (AIC*) is the major appraisal organization that sets standards for education appraisal practices**
- **The *Canadian Uniform Standards Professional Appraisal Practice (CUSPAP)* is a set of appraisal standards that must be followed by all members of the AIC**
- **Members will complete appraisal reports, carry out consulting or appraisal review for clients, all of which are governed by the CUSPAP guidelines**
- **The AIC also requires members to re-certify by taking various courses which are appraisal specific or related to real estate in some manner**
- **Appraisal practice includes Appraisal, Appraisal Review and Appraisal Consulting**

Appraisal Reporting Options

- **CUSPAP details three types of appraisal reports:**
- **Narrative Report; comprehensive and detailed**
- **Short narrative; consists of concise and brief descriptions**
- **Form; a standardized format, combining check-off boxes and narrative comments**

Purpose and Intended Use of an Appraisal

- **The purpose is the stated reason and establishes the scope of the assignment**
- **The purpose is established by the client, explaining what they want answered about the property**
- **Values sought can be: market value, fair value, assessed value, use value, investment value, business value or other types of value as defined by the client and the appraiser**
- **The purpose establishes the foundation of the final value conclusion**
- **The intended use is how the client will use the appraisal information for their needs, such as: market value for sale or purchase purposes, investment value, assessed value, to assist in setting lease rates, government expropriation, etc**
- **The date of the appraisal must also be show as forces on any given day can affect a property's value**

- **Appraisals are commonly used in situations involving the transfer of ownership, financing and credit, litigation, taxation, investment counselling and in other business decision making**

Appraiser Liability

- **Members are required to carry liability insurance through the AIC**
- **Area of possible liability are negligence, misrepresentation, fraud, breach of contract, or lack of compliance with the CUSPAP**
- **Appraisers are providing opinions of value and to avoid liability, a thorough and professional job is necessary. This requires good market date support for all opinions and adjustments to validate a reliable estimate of value for the subject**

Chapter Two: The Nature of Value -

- Objective Value – cost to build only
- Subjective Value – what market will pay for item. Value is in minds of buyers/sellers. It's what they perceive.
- Value is what you buy
- *Current Market Value most probably price, as of specific date, cash or equiv. in local currency, comparables to the market, buyer/seller knowledgeable, and there is no stress between transaction (arm's length)

- Four Economics create value:

1) Utility: Ability to satisfy want, need and desire. Amenities = design features that relate to desirability and utility to owner/tenant. Size utility, design and location utility, etc.
2) Scarcity: supply and demand. If demand is consistent, scarcity of commodity makes it more valuable. When Demand is high, then value is high.
3) Desire: Wish for an item to satisfy human need or wants beyond essentials of life
4) Effective purchasing power: Paying for property or goods within the market. How much power do you have to do this?

All four above affect supply and demand.

- Classical Theory Influenced Cost Approach in 1776.
- David Licardo developed rent theory based on concept of marginal land and law of diminishing returns. Land residual returns = rent. His theory contributed to highest and best use and land residual in income approach.
- John Stuart Mill brought forth interest and value in use = capital value. The role of risk determining interest and inequities of "unearned increments" accruing to land.
- Challenges with this…..
    - Karl Marx said all value is direct result of labour and high wages = low capitalist profits
    - Marginal utility = links value to the utility of and demand for the marginal, or additional, unit of an item therefore one item in demand in the market = market becomes diluted and cost of production becomes irrelevant (CONCEPT OF CONTRIBUTION)
    - Neoclassical merges supply cost consideration with demand price = basis for contemporary value theory.
- Alfred Marshale
    - Supply fixed, value is function of demand
    - Price, cost, value all equal

    - distinction between value theory and valuation theory i.e method of estimating, measuring or forecasting a defined value
    - developed concepts such as site value via capitalization of income, depreciation of buildings and land which influence of difference building types and land uses on site value
- Marshall identified three traditional approaches to value:
    - market (direct) approach
    - Reproduction/replacement costs
    - capitalization of income
- Irvin Fisher fully developed the income theory of value = income capitalization approach

- Market: set of arrangements which buyers and sellers brought together through price mechanism.
- Real estate market: exchange real property rights for other assets such as money
    - Various attributes: type, location, income potential, investor/tenant characteristics
- Cost = relates to production, not exchange
- Value = monetary worth of property, goods or services to buyers and sellers
- Market value reflects collective perceptions and actions of a market
- Fair value: Asset exchanged in orderly transaction
    - orderly transaction: exposure to market before sale allowing marketing
    - market participants are not related, knowledgeable on product, able to sell/buy, motivated (not forced)
    - consider highest and best use and if it is physically possible, legal and affordable. Specifically in use with others and exchange alone.
- Use Value: Value a specific property has for a specific use
    - i.e. old factory with original owner – lots of use value to him/her, but not necessarily for a large market (or a market if any)
    - i.e. farmland – value based on productivity vs. highest and best use not regarded
    - for particular buyers at a particular time
    - worship, schools, museums all specialized and restricted with their functional utility to the use for
    - these specialized properties normally do not receive current market value (CMV), but can for legal purposes
- Investment Value: Value of a specific property to a specific investor. Based on a person/entity's investment requirements
    - investment value = value to an individual, not necessarily a market place
    - subjective relationship between particular investor and given investment
    - specific investment criteria needs to be known
- Business Value: (or business enterprise value)
    - Market Value of the going concern including real property, personal property, and intangible assets of the business

    - Going concern value = value of a proven property operation. This assumes business will continue to operate in the future.
    - Going concern: all tangible and intangible assets of an established and operating business with an indefinite life
    - Tangible: personal and real property
    - Intangible: contracts, workforce, patents, etc.
- Public Interest Value: (or natural value, intrinsic value, scenic values, etc.)
    - highest and best use not related to economics
    - driven by social, political and public policy goals
    - highway buys parcel (100% market value department, 25% over market value paid to owner for public interest to avoid transaction/litigation costs that require expropriation
- Assessed Value: MPAC normally does this. Value based on tax rolls
- Insurable Value: Based on replacing physical item
- Actual cash value: replacement cost – depreciation = value

INTENDED USE/PURPOSE OF APPRAISAL DETERMINES WHAT VALUE TO USE*

Chapter 3: Foundation of Real Estate Appraisal -

Introduction

- Increase in interest rates, decreases housing price
- To determine level of participation in market, individuals think of their wants and needs and options of available to them at different times
    - Choices help support free market economy
        - § So, both individual and collective decision contribute to the nation's economic success

AGENTS OF PRODUCTION

- Four agents of production:
    - The production of goods, services and income are dependent on these
    - You may use these to develop a well-supported opinion of value through systematic analysis of each these components, their interrelationships, and their relationship to the property as a whole

Land

- First thing entrepreneur thinks of when developing a property
- Cost of vacant site (or parcel of raw land) = cost of acquisition
- You anticipate that an owner will add improvements and market the property to tenants or multiple end users

Labour

- Labour = direct costs + indirect costs required to construct and market the product as land alone or with improvements
    - **Directs costs**: wages, materials, etc.
    - **Indirect costs**: permit fees, marketing expenses, taxes, overhead, the cost of project coordination or supervision and financing costs no included in the rate paid to the lender over the development period

Capital

- Real estate development requires physical capital
    - E.g. equipment, buildings, and infrastructure that can produce other goods

Entrepreneurial Coordination

- Entrepreneur expects entrepreneurial incentive – a reward to the entrepreneur (measured in the marketplace as entrepreneurial profit) or a forecast of the amount the developer expects to receive – for creating and marketing a real estate product through the coordination of land, labour, and capital
- Entrepreneurial profit = amount received after property is complete.
- Accounts for investment of time and expertise
- Entrepreneurial coordination: the ability of an entrepreneur to combine land, labour, can capital in the development of real property; a component of real estate value that represent the investment time, expertise, and equity by an entrepreneur (or developer) in the development of a property

ANTICIPATION AND CHANGE

- The human actions that together shape markets operations to reflect the pursuit of economic goals
- Use the principles of anticipation and change to analyze the many dynamic and interactive factors that influence people's attitudes and beliefs about value

Anticipation

- The perception (anticipation) that future benefits will create value
- In real estate markets, the current value of a property based on the market participants' perceptions of the future benefits of acquisition
- The basis for value of owner-occupied residential property is primarily the expected future advantages, amenities, and the opportunity cost (the cost of options foregone, or opportunities not chosen) of ownership and occupancy
    - Before the sale, the primary investment return is measured in these amenities and the economic benefit of owning rather than renting property, not in the receipt of income.
- Basis of value for income-producing real estate is the future income it will produce
    - So, real property appraisers must be aware of local, regional, and national real estate trends that affect the perceptions of buyers and sellers and their anticipations of the future
    - Historical data on property or market is relevant only if it helps current market anticipations

Change

- The dynamic nature of social, economic, governmental, and environmental forces that influence real property value accounts for change

    - Changes in these forces affect supply and demand of real estate, and therefore individual property values
- You can try to anticipate and identify current changes in market that could affect current property values, but, because change is not always predictable, opinions of value only valid as of **reference date or date of valuation**
- Your analyses and conclusions reflect only what the market anticipates
- Shifts in market preferences provide evidence of change
    - Real estate not readily adaptable to new consumer preferences and thus suffers obsolescence, i.e. and impairment of desirability and usefulness.
    - Physical, functional, and economic impairments observed in building as they age result in depreciation – a loss in property value from any cause
    - Depreciation = cost to reproduce or replace a property – PV
    - Deterioration or obsolescence causes losses in property value
    - Since obsolescence can begin design phase and deterioration may start while building or improvement is still being constructed, different types of deterioration and obsolescence found in a property have unique implications in appraisal

SUPPLY AND DEMAND, SUBSTITUTION, BALANCE, AND EXTERNALITIES

- Can be applied to the unique physical and legal characteristics of a parcel of real property
- When in proper accord, indicate the highest and best use of the parcel of land, which has great significance in real property appraisal

Supply and Demand

- Principle: the price of a commodity, good, or service (in real estate, the price of real property) varies directly, but not necessarily proportionately, with demand and inversely, but not necessarily proportionately, with supply.

Supply

- Property values usually vary inversely with supply
- If number properties for a specific use increases relative to demand, their equilibrium value declines

- Supply and demand for commodities go towards equilibrium – market value, price, and cost are equal
- In real estate, supply is the amount of a type of real estate available for sale or lease at various prices in a given market at a given time
    - Higher the price, the greater the supply
        - A basic factor of value is when the supply of an item at a price, at a time, and in a place indicates item's relative scarcity
- Supply of real estate dependent on the costs of the four agents of production, which are brought together to produce a product offered for sale
    - Increasing demand, increases property values and the quantity of new properties offered for sale generally increases
    - Decrease in supply of agents of production, property values rise
    - Increases in productivity of labour, greater technology efficiency, improvement in capital goods, or utilization of more capital goods per worker à reduces development costs
    - A building boom set in motion by developer's rising expectations of profit may result in property oversupply
- Real property is a physical commodity and a service à the supply of real estate refers to the amount of service, or the usability of the space as well as the quantity of physical space
- Those involved in real estate primarily concerned with supply of land suitable for a specific use, not simply the total number of hectares or acres available.
- Quantity of space supplied for a given use slow to adjust to changes in price levels, generally.
- Length of time needed to build new structures, the large amount of capital required, and government regulations are catalysts to supplier's ability to meet changes in the market.
- Quality of space can change more rapidly because suppliers can convert non-productive space to alternative uses, cure deferred maintenance, and partition existing space into smaller units

Demand

- The desire and the ability to purchase or lease goods and services
    - In real estate it is the amount of a certain type of real estate desired for purchase or rent at various prices in a given market for a given period.
- Since it is hard to add to the supply of real property for a specific use in a short time, current demand strongly affects values.
- Can be characterized in terms of both quantity and quality

    - E.g. number of households in the market area and the household incomes as well as the size and characteristics of the households and specific housing preferences may define demand in a residential market.
    - Demand supported by purchasing power results in effective demand, which is the type of demand considered by the market
- You must interpret market behaviour understand the existing relationship between the supply of and the demand for the type of property being appraised

Competition

- Competition between buyers or tenants represents the interactive efforts of two or more potential buyers or tenants to make a purchase or secure a lease
- Between sellers or landlords, competition represents the interactive efforts of tow or more potential sellers or landlords to affect a sale or lease
- Between competitive properties, the level of productivity and amenities or benefits characteristic of each property considering the advantageous or disadvantageous position of the property relative to the competitors
- Is fundamental to dynamics of supply and demand in free enterprise, profit-maximizing economic systems
- Buyers and sellers operate in a competitive market setting
    - Each property competes with all other properties suitable for the same use in a market segment and often with properties from other market segments as illustrated
        - Examples:
            - A profitable hotel faces competition from newer hotels nearby
            - Existing residential subdivisions compete with new subdivisions
            - Downtown retail properties compete with suburban shopping centres
- Over time, competitive market trends to reduce unusually high profits
    - Profit encourages competition, but excess profits attract competition reducing profits of original retailer for example
    - Effects of competition and market trends on profit levels especially important to appraisers making income projections as part of the income approach to value

Substitution

- When several similar or commensurate commodities, goods, or services are available, the one with the lowest price attracts the greatest demand and widest distribution.
    - Assumes rational, prudent market behaviour with no undue cost due to delay
    - According to this principle, a buyer will not pay more for one property than for another that is equally desirable
- Price of acquiring an equally desirable substitute property tends to set property value.
    - This principle recognizes that buyers and sellers of real property have options, in that other properties are available for similar uses
    - Substitution of one property for another may be considered in terms of use, structural design, or earnings.
    - Cost of acquisition may be cost to purchase a similar site and construct a building of the equivalent utility, assuming no undue cost delay; basis of cost approach
    - May also be the price of acquiring an existing property of equal utility, again assuming no undue cost due to delay; basis of direct comparison approach
- Principle equally applicable to houses, which are purchased for their amenity-producing attributes, and properties purchased for their income-producing capabilities
    - Amenity-producing attributes of residential properties: excellence of design, quality of workmanship, or superior construction materials.
    - Income-producing attributes
        - An equally desirable sub might be an alternative investment property that produces equivalent investment returns with equivalent risks
            - The prevailing prices, rents and rates of equally desirable substitutes tend to set the limits of property prices, rents, and rates.
- This principle is fundamental to all three traditional approaches to value
- Applies in most situations, but the market perceives the characteristics of a product to be unique
    - Demand generated for such products may result in unique pricing
        - E.g. a market may not have ready subs for special-purpose properties such as historic residence, medical office building, or high-tech manufacturing plant
        - You must research sub properties in a broader market or employ analytical techniques appropriate for limited-market properties

Balance

- Real property value is created and sustained when contrasting, opposing, or interacting elements are in a state of equilibrium
- Applies to relationships among various property components as well as the relationship between the costs of production and the property's productivity
- The land, labour, capital, and entrepreneurial coordination are the agents of productions, but for most real property the critical combo is the land and improvements
- Economic balance is reached when the combo of land and improvements is optimal, i.e., when no marginal benefit or utility is achieved by adding another unit of capital.
- Principle of balance governs the related principles of diminishing returns, contribution surplus productivity, and conformity
- The law of diminishing returns holds that increments in the agents of production added to a parcel of property produce greater net income up to a certain point – point of balance
    - At this point, the point of decreasing or diminishing returns, maximum value is reached
    - Any additional expenditure will not produce a return commensurate with the additional investment.
        - If more agents added beyond this point, productivity will decrease proportionally
    - Aka diminishing marginal productivity
- Principles of balance and contribution, surplus productivity and conformity are interdependent and crucial in highest and best use analyses and market value estimation
    - Forms the theoretical foundation for estimating all forms of depreciation in the cost approach, making adjustments in the direct comparison approach, and calculating expected earnings in the income approach.

Contribution

- The value of a particular component is measured in terms of its contribution to the value of the whole property or as the amount that its absence would detract rom the value or the whole or as the amount that its absence would take away from the value of the property as a whole
    - Cost of an item does not really increase its value
        - Examples: Swimming Pools
            - Cost to install = $30,000

- But does not really increase value of a residential property by $30,000
- Pool's $ contribution measured in terms of its benefit or utility to the market
- Contribution to value may be one of the following:
    - Higher than its cost if properties with swimming pools are in very high demand in the market
    - Equal to its costs
    - Lower than its cost, though still contributing positively to value. This is the most common situation, i.e., more than zero but less that its cost
    - No contribution to value if adding a swimming pool would have no effect on the value of that property in that market at that time
    - A negative contribution to value if the swimming pool may need to be removed at an additional cost for the property to reach its highest and best use

- The cost of the existing improvements may not be in proper balance with the total property
    - Especially in transitional areas, a property's present use may underutilize the land
    - An existing use, less-than-optimal use, called an interim use, will continue until it's economically feasible for a developer to absorb the costs of converting the property, either by razing and replacing the existing improvements or by rehabbing them

Surplus Productivity

- The net income to the land remaining after the costs of the other agents of production have been paid
- Principles of surplus productivity and residential returns to the land are useful in establishing the highest and best use of land and in analyzing which option among alternative land use options will yield the highest value

Conformity

- Real property value is created and sustained when the characteristics of a property conform to the demands of its market
- Styles and uses of properties in a given area may conform for several reasons: economic pressures and the shared preferences of owners for certain types of structures, amenities, and services

- The imposition and enforcement of zoning ordinances and plans by local governments to regulate land use may also contribute to conformity
- Standards of conformity set by the market are subject to change
- Local building codes and private restrictions, which tend to establish conformity in basic property characteristics such as size, style, and design, are often difficult to change and may hasten the pace of obsolescence
- Individual markets also set standards of conformity, especially when it comes to price
    - According to the principle of progression, a lower-price property will be worth more in a high-priced neighbourhood than it would in a neighbourhood or comparable properties
        - § Exceptions:
            - E.g. the seasonal cottages and luxurious vacation homes that line a popular recreational lake may exert no effect, either positive or negative, on the value of one another because the market accepts diversity

Externalities

- Factors external to a property can have either a positive or negative effect on its value
- Positive externalities:
    - Bridges and highways
    - Police and fire protection
    - Other essential structures and services
- Negative externalities:
    - A firm that violates environmental law by dumping hazardous waste and manages to evade responsibility imposes the clean up costs on others
- Since real estate is physically immobile, externalities have a greater effect
    - Externalities include: use or physical attributes of properties of properties located near the subject property or to the economic conditions that affect the market in which the subject competes
        - § E.g. an increase in purchasing power of households that constitute the trade area for a retail facility will likely have a positive effect on sales (income-producing) potential of the property
- On a broad level, international economic conditions can influence real estate values through externalities such as the availability of foreign capital or the effect of increasing foreign trade on the growth of the national economy
- National fiscal policy plays role in real estate markets
    - Government policy changes that influence the taxation or financial performance of real estate can affect its appeal and value
- National economic trends
- Tax Policy and Real Property Markets (Read 3.11 not too important)
- Service and natural resource sectors in North Canada have affected real estate markets

- At community and neighbourhood levels, property values are affected by local laws, local government policies and administration, property taxes, economic growth, and social attitudes.
- Different property value trends can be found in communities in the same region and among neighbourhoods in the same community.
- You should be familiar with external events at all levels that can impact property values

FORCES THAT INFLUENCE REAL PROPERTY MARKETS

- Interaction of these forces influences value of every parcel of real estate in the market/values

Social Forces

- Social forces studied by appraisers primarily relate to population characteristics
- Analyze and interpret demographic trends because the demographic composition of the population reveals the potential demand for real estate
- Real property values not only affected by population changes and characteristics, but also by the entire spectrum of human activity
- The total population, its composition by age and gender, and the rate of household formation and dissolution strongly influence real property values.
- Reflected in attitudes toward education, law and order, and lifestyle options

Economic Forces

- Must analyze the fundamental relationships between S&D and the economic ability of the population to satisfy its wants, needs, and demands through its purchasing power
- Market characteristics considered in analysis:
    - Employment
    - Wage levels
    - Industrial expansion
    - The economic base of the region and the community
    - Price levels
    - The cost and availability of mortgage credit
    - The stock of available vacant and improved properties
    - New development under construction or in the planning stage
    - Occupancy rates
    - The rental and price patterns of existing properties
    - Constructions costs

Governmental Forces

- Gov't and legal activities can have great impact on property values
- Legal climate at a time or place may overshadow natural market forces of S&D
- Examine how the following factors could influence property values:
    - Public services such as fire and police protection, utilities, garbage collection, and transportation networks
    - Local zoning, building codes, and public health codes, especially those that obstruct or support land use
    - National, provincial, and local fiscal policies
    - Special legislation that influences general property values:
        - § Rent control laws
        - § Foreclosure and bankruptcy laws
        - § Restrictions on forms of ownership such as those imposed on condominiums and timeshare arrangements
        - § Environmental legislation regulating new developments and wetlands as well as the control of hazardous or toxic materials
        - § Legislation affecting the types of loans, loan terms, and investment powers of mortgage lending institutions
        - § Legislation protecting the right to farm, and reserving forest or agricultural lands
        - § Fisheries laws, which limit upland activities that directly or indirectly diminish food or habitat for fish

Environmental Forces

- For real estate purposes:
    - Climatic conditions such as snowfall, rain fall, temperature, and humidity
    - Topography and soil
    - Toxic contaminants such as asbestos radon, and PCBs
    - Natural barriers to future development such as rivers, mountains, lakes and oceans
    - Primary transportation systems, including federal and provincial highway systems, railroads, airports, ports and navigable waterways
    - The nature and desirability of the immediate surrounding property
- The enviro forces that affect the value of a specific real property may be understood in relation to the property's location
    - Location considers time-distance relationships, or linkages, between a property or neighbourhood and all possible origins and destinations of residents coming to or going from the property or neighbourhood.
        - § Location and environmental and economic character
        - § Time and distance are measures of relative access that you should consider in terms of site ingress and egress, the characteristics of the

neighbourhoods through which traffic to and from the site passes, and transportation costs to and from the site

- To analyze the value influence of location, the linkages between the property and important points or places outside the property are identified, and the distance and time required to cover those distances by the most commonly used types of transportation are measured.
- Depending on the area and the property type, the appraiser may investigate the property's access to the following:
    - Public transportation
    - Schools
    - Stores
    - Service establishments
    - Parks
    - Rec and cultural facilities
    - Places of worship
    - Sources of employment
    - Product markets
    - Suppliers of production needs
    - Processors of raw materials
- How close industrial properties to residential areas provides the business located there with access to workers, but how close to potentially hazardous substances may penalize the market for residential properties

Chapter 4: Real Estate Markets

- Real estate markets are divided into categories based on property type and their appeal to different market participants, and further divided into sub markets
- Appraisers analyze the utility and scarcity of the property, and desires, and purchasing power of those who seek the property rights

CHARACTERISTICS IN REAL ESTATE MARKETS

- Real estate markets have become more efficient in recent years
- Analysis focuses on the motivations, attitudes, and interaction of market participants as they respond to characteristics of real estate and influences that affect value
- There are contrasting characteristics between efficient markets and real estate markets

Efficient Markets	Real Estate Markets
Goods are the same, can be substituted	No two parcels are identical
Supply and demand never far out of balance	Supply and demand can shift suddenly in a period of little or no activity
Buyers and sellers are knowledgeable and fully informed	Buyers and sellers not well informed
Goods are readily consumed And quickly supplied	Real estate could be unmarketable and illiquid

Market Segmentation and Delineation

A real estate market is a group of people or firms that are in contact with each other for the purpose of conducting transactions. Market participants are:

- Buyers
- Sellers
- Rentors
- Lessors
- Developers
- Builders
- Managers

This is broken down in 3 ways:

1. Sub markets divise the total market into preferences of a certain set of buyers and sellers
2.Market segmentation is the process in differentiating the most probable users of a property from the general population by their consumer characteristics
3. Disaggregation is grouping properties together based on their similar characteristics

Market analysis combines market segmentation and product disaggregation

Process to identify a real estate market – Delineation looks at the following factors:

1. Property Type

2. Features: occupancy, customer base, construction, design
3. Market Area: defined by location. Local, regional, national, urban or suburban. Could be in a neighbourhood, district, or city
4. Available subs – equally desirable properties competing with the subject
5. Complementary Properties: other properties that are complementary to the subject.

Defining Boundaries

- Boundaries can affect a properties market value
- The area can be defined as a group of complementary land uses
- Neighbourhood normally has single unit homes and commercial properties. They are congruous groupings of inhabitants, buildings, or enterprises.
- Districts are commonly composed of apartments, commercial, industrial, agricultural
- A market area can encompass one or more neighbourhoods or districts or both

To identify the boundaries an appraiser:

- Examines the subject and the areas physical characteristics
- Draws preliminary boundaries on a map
- Determine how well the preliminary boundaries correspond to the demographic data. This data is normally derived from government offices

REAL ESTATE CYCLES

Appraisers need to know where a real estate market is in its cycle, as certain assignments are more common at different stages

- Foreclosures, bankruptcies, and appeal assignments are common during recession
- Financing, and traditional real estate transactions are common during the upswing, or recovery
- Client seek consulting services when a market is expanding or contracting around its peak
- In addition, people want to know when to hold or sell a property, to write long or short term leases, and when to invest in renos and improvements. These questions require an opinion of the state of the real estate cycle.

The cycle follows any typical economic cycle of any market. Expansion, Decline, Recession, and Recovery. Factors that determine this cycle are supply, demand, vacancy, rents, and capitalization rates.

MARKET AREAS, NEIGHBOURHOODS, DISTRICTS

Social, governmental, environmental, and economic forces affect property value. The most important boundaries are those that identify factors influencing property values. Using the umbrella term “market area” avoids the confusing and possibly negative implications of the other terms district, and neighbourhood. Analyzing the market area helps to provide a framework in which the opinion of property value is developed.

- Change in market areas: an appraiser recognizes the potential for change and considers trends in growth, and determines if an area is in a state of transition from one type of land use to another.
- Life cycle of a market area: Four stages are growth, stability, decline, and revitalization.
    - Growth: market area gains public favour
    - Stability: area experiences equilibrium without marked gains or losses
    - Decline: diminishing demand in market areas cycle
    - Revitalization: renewal, redevelopment, modernization, demand increases.

Normally this is where transition can occur, where a land use is changed in favour of a better use

Note: No set number of years are assigned to any stage in the cycle. A market area has no life expectancy, and a major change can interrupt the order of the stages

VALUE INFLUENCES

These are the forces that influence value

Social Influences

- Demographic characteristics
- Population density
- Educational characteristics, skill levels
- Age levels
- Household size
- Employment levels
- Extent of crime
- Availability of educational, medical, social, recreational, cultural and commercial services

Economic influences

- Household income levels
- Extent of owner occupancy
- Rent levels and trends
- Vacancy rates

Governmental Influences

- Relate to laws, regulations, and taxes that affect properties in areas
- Zoning bylaws, codes
- Property tax burden relative to services provided
- Special assessments
- Development levies
- Zoning, building, and subdivision codes or bylaws
- Public services

Environmental Influences

- Any natural or man made features that are contained in or affect the market area
- Building size, type, density

- Terrain, vegetation
- Wildlife habitats
- Waterways
- Open space
- Adequacy of public utilities
- Upkeep of vacant lots
- Threats of landslides or flooding
- Access to public transportation
- Environmental characteristics must be compared with the characteristics of competing areas

CHARACTERISTICS OF REAL ESTATE DISTRICTS

Single Unit Residential
- Owner occupied homes
- Consist of sub divisions, attached housing, rural housing
- Value influences include: access to workplace, transportation, access to chopping, quality of schools, reputation, distance to parks and open space, lakes rivers

Multi Unit Residential
- Cover an extensive area
- Subject to many of the same influences as single unit, but importance differ because of the higher density
- Multi story, high rise, townhouses, co-op apartments
- Value influences include: access to workplace, transportation, access to shopping, reputation, parking, vacancy turnover, atmosphere and appearance.

Commercial Districts
- A group of offices or stores
- Highway commercial districts
- Retail, central business districts – the core or downtown of a city
- Office uses with supporting retail service
- Value influences include: locational considerations such as the time distance from labour force, availability of land for expansion, traffic count

Industrial Districts
- Often the engine of economic growth in a community
- Manufacturing plants, research and development facilities, warehouse
- Value influences include: available labour, transportation services, available raw materials, availability of energy

Agricultural Districts
- Undeveloped land used for production of foodstuffs, timber
- Grain farms, grasslands, dairies, timberland, orchards
- Value influences include: climate, soil, topography, crops grown, animals raised, land

uses,

Specialty Districts

- Forestry, medical, research, technology parks, education, historic
- Forestry: public owned lands for harvesting
- Medical District: composed of hospitals or health care facilities. Value depends on age and proximity to hospitals and medical offices
- Research and Development parks: office and industrial use for research on drugs, chemicals, or computers, sometimes funded by universities
- High technology parks: firms engaged in high tech activities. Electronic and computer firms dominate these districts
- Education districts: local schools, colleges, and universities can make up a district if they have several buildings and are considered a part of the community
- Historic Districts: interest in preserving historically or architecturally significant properties. Used to preserve cultural heritage.

CHAPTER 6: REAL PROPERTY OWNERSHIP AND INTERESTS -

Exploring property rights, their limitations and the effect both have on the value of a property.

THE BUNDLE OF RIGHTS – bundle of sticks (each stick is a right or interest - which can be separated individually from the bundle by sale, lease, mortgage, donation, or another means of transfer) –<u>right to sell an interest, right to lease an interest, right to occupy the property, right to mortgage the property, right to give an interest away.</u>

Fee simple interest – absolute ownership unencumbered. Limited only by the 4 powers of government (taxation, expropriation, police power, escheat)

Often the fee simple interest is hypothetical and only used to compare to a partial or fractional interest.

Partial interest, Divided Interest, Undivided Interest

PARTIAL INTERESTS IN REAL PROPERTY

ECONOMIC INTERESTS – most common is when fee simple interest is divided by a lease (lessor and lessee each obtain partial interests) leased fee and leasehold interest are created

Leased Fee – lessor or landlord interests specified by contract eg: rent, repossession, default provisions, right of disposition subject to lessee's rights, during the lease period.

Leased Property, even one with rent that is consistent with market rent, is appraised as a leased fee interest not as a fee simple interest.

Leasehold – lessee or tenant's estate. Upon creation of the lease the tenant usually acquires the rights to possess the property for the lease period, to sublease the property (if allowed) and possibly improve the property under restrictions of the lease.

Tenant must pay rent, surrender possession at termination of lease, remove improvements if specified, and abide by other lease provisions.

Leasehold interest may have value if contract rent is less than market rent which in turn will likely affect the value of the leased fee interest. Encumbered by a fixed rent. And vice versa. If the rent is too high it may come with other advantages or it may imperil the tenants business and increase risk to occupancy.

Subleasehold or Sandwich – normally subleases are permissible but usually with the landlord's consent. In a Sublease, the lessee is 'sandwiched' between the lessor and a sublessee. There is value to the lessee if the contract rent is less than the rent collected from the sublessee. Lessee still needs to abide by original contract.

Not all leases allow or are long enough to be marketable to sublet and would have no market value. The leased fee may also have lower value as the lessee no longer needs or can afford the property will likely default.
The sublease may contain provisions that go beyond, but do not violate, the provisions of the original lease.

LEGAL INTERESTS – virtually every property is subject to some sort of easement or other legal restriction on use that creates a partial interest. Some permanent, some temporary. Often appraisers have to either estimate the value of the property subject to an easement or estimate the value of the easement itself.

Life Estates – total rights of use, occupancy, and control of a specified property limited to the lifetime of a designated party (known as life tenant) obligated to maintain the property in good condition and pay all applicable taxes during the term of the life estate. Two interests are created and can be evaluated by the appraiser:
Life tenant and Remainder Interest
Life Estates can be created by: operations of law, wills, deeds of conveyance.
Example: fee owner wills property to wife(life tenant) and upon her death the property goes to the children(remainder interest or remaindermen).
Might be used to eliminate probate, but may call for tax assessment of a gift tax.
If the life estate generates income the appraiser may estimate its probably duration based on life expectancy statistics (actuarial). Calculating net operating income and its duration for an appropriate discount rate to be applied.

Easements – an interest in a real property that transfers use, but not ownership, of a portion of an owner's property. Typically for access to an adjoining property or as the location of a certain underground utility. Surface easements most common but subterranean and overhead are used for public utilities, subways and bridges. Also, scenic easements and façade easements which require permission by the property owner from the easement owner.
A property that enjoys the benefit of an easement gains additional rights and the property subject to the easement is burdened. Easement appurtenant attaches to the property benefitted. Dominant tenement is the property whose owner acquired the easement and the servient tenement is the property subject to the easement.
Easement can be created by: a contract between private parties, adverse possession in accordance with provincial law, governmental entities or public utilities through the exercise of expropriation.

Transferable Development Rights - a development right that is separated from a land owner's bundle of rights and transferred, generally by sale, to another land owner in another location. Usually this is done to preserve historic or agricultural land and allows the receiving land owner to build at a higher density.
Example, low rise house of worship transfers density to a high rise development.

TDRs are generally an interest in real property only as long as they are attached to land…become personal property when sold….becoming real property again when attached to another tract of land.

PHYSICAL INTERESTS – achieved horizontally or vertically.
Horizontal divisions are created through subdivision (tract of land broken into smaller units) or assemblage (two or more parcels are combined into one)
Vertical interests – sub-surface (usually minerals or tunnels and public utilities) and air rights (use, control and regulation of air space over a parcel of real estate).

FINANCIAL INTERESTS – mortgage funds are secured debt positions, while equity investments are venture capital.

Equity – the owner's interest after all debt is paid. It is a financial interest in a property by an individual owner, joint owner, partner, or shareholder in a corporation.

Mortgage – debt secured with the real estate as collateral.

REAL PROPERTY OWNERSHIP

PUBLIC AND PRIVATE OWNERSHIP – Public (streets, roads, municipal utility systems, prisons, city hall…usually owned by governmental bodies for the benefit of citizens)
School districts own land and facilities, library districts own land and facilities.
Response to need or demand leads to most public ownership either through expropriation or taxation.
Private interests can take many forms based on the needs of the owner(s).
CUSPAP requires the appraiser to identify which interest is to be valued in an assignment, but the interest valued need not reflect 'what exists'.

PUBLIC RESTRICTIONS ON OWNERSHIP – four powers of government:
Taxation – right of government to raise revenue through assessments on goods, products, and rights. The right to tax property is reserved for Provincial and Municipal – not Federal.
Expropriation – eminent domain is the right of government to take private property for public use upon the payment of just compensation.
Police Power – right of the government through which property is regulated to protect public safety, health, morals and general welfare. Ex: zoning, use restrictions, building codes, air and land traffic, public health codes, environmental
Escheat – gives the government titular ownership of a property when its owner dies without will or any statutory heirs.

PRIVATE RESTRICTIONS ON OWNERSHIP – right of way or party wall agreements. Deed restrictions and subdivision covenants and restrictions

can be found within deeds recorded at registry or info provided by the property owner. Easements and right of way may only be found in title reports or through diligent search of public records. Under the land titles system of some provinces, a single title status report can be obtained that shows all the claims registered against the title of a property.

FORMS OF OWNERSHIP

CONCURRENT OWNERSHIP OF REAL PROPERTY – Real

estate can be owned by one or more entities. Individual ownership is legally known as ownership in severalty. Individuals can also hold 100% ownership of beneficial trust or stock of a corporation. Tenancy is holding of property by any form of title. Concurrent ownership includes joint tenancy(two or more with right of survivorship), tenancy by entirety(held by husband and wife where neither has a disposable interest during the lifetime of the other unless joint action) and tenancy in common(held by two or more, each of whom has an undivided interest).

LEGAL ENTITY OWNERSHIP OF REAL PROPERTY

Land Trusts - one or more properties are conveyed by special deed to a trustee, which then owns the real property and either the original owners or some other designated individual or persons become the owners of the beneficial interest in the trust. Legal – a judgement against a beneficiary is not a lien against the real estate.

Partnerships – business arrangement in which two or more persons jointly own a business and share in its profits and losses. General Partnership – all partners share in gains and are responsible for all liabilities and agreement terminates when a general partner dies. Limited Partnership – have both general and limited partners. Can be either active or passive (general are active and limited passive) limited partners liability restricted to the amount of their capital contribution.

Stock Corporations – like limited partnerships allow many investors to pool funds to buy property but individual investors do not own any interest in real property but instead own shares in the corporation.

Limited Liability Companies – features of both partnerships an corporations. Members rather than shareholders.

Syndications – an individual or group purchases interests in real property for the purpose of transferring them to a limited partnership, which in turn sells the interests to investors.

SPECIAL FORMS OF OWNERSHIP

Condominium – a condominium unit is a separate ownership, and an individual owner hold title. May also hold undivided partial interest in the common areas.

Cooperative – a stock corporation is organized, acquires title to an apartment building, prices the various apartments, and issues an authorized number of shares at a specified par value. Individual owners purchase shares and receives a proprietary lease on a specific apartment and is obligated to make a monthly payment that represents the proportionate share of operating expenses and debt service of underlying mortgage.

Timesharing – Limited ownership interstes in, or the rights of use and occupancy of, residential apartments or hotel rooms. There are two forms of timesharing: fee timeshares and nonfee timeshares. Fee timeshares may be based on timeshare ownership or interval ownership. There are three types of nonfee timeshares: a prepaid lease, a vacation lease, and a club membership

GLOSSARY

Partial Interest – divided or undivided rights in real estate that represent less than a whole

Divided Interest – interest in part of a whole property eg: lessee's interest

Undivided Interest – fractional ownership without physical subdivision eg: joint tenant or tenant in common

Fee Simple Interest – absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, expropriation, police power and escheat

Leased Fee Interest – ownership interest held by the lessor, which includes the right to the contract rent specified in the lease plus the reversionary right when the lease expires

Leasehold Interest – right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease

Sublease – an agreement in which the lessee in a prior lease conveys the right of use and occupancy of a property to another, the sublessee, for a specific period of time, which may or may not be coterminous(expire at the same time) with the underlying lease term.

Sandwich Lease – a lease in which an intermediate, or sandwich, leaseholder is the lessee of one party and the lessor of another. The owner of the sandwich lease is neither the fee owner nor the user of the property; he or she may be a leaseholder in a chain of leases, excluding the ultimate sublessee.

Life Tenant – one who owns an estate in real property for his or her own lifetime, the lifetime of another person, or an indefinite period limited by a lifetime.

Remainder Interest – a person who is entitled to an estate after a prior estate or interest has expired; also called remainderman or remainder.

Easement – an interest in real property that transfers use, but not ownership, of a portion of an owner's property. Access or right of way easements may be acquired by private parties or public utilities. Governments accept conservation, open space, and preservation easements on private property.
Easement Appurtenant – easement attached to, benefits, and passes with the transfer of the dominant estate; runs with the land for the benefit of the dominant estate and continues to burden the servient estate, although such an estate may be transferred to new owners.
Conservation Easement – a restriction that limits the future use of a property to preservation, conservation, or wildlife habitat.
Preservation Easement – a restriction that prohibits certain physical changes in a historic property; usually based on the property's condition at the time the easement was acquired or immediately after proposed restoration of the property.
Transferable Development Right (TDR) – a development right that cannot be used by the landowner, or that the owner chooses not to use, but can be sold to land owners in another location; generally used to preserve agricultural land; may also be used to preserve historic sites or buildings and open space or to protect scenic features. TDRs are said to be transferred from a landowner in a sending district to the use of a landowner in a receiving district.
Sub-surface Rights – the rights to the use and profits of the underground portion of a designated property; usually refers to the right to extract coal, minerals, oil, gas, or other hydrocarbon substances as designated in the grant; may include a right of way over designated portions of the surface.
Air Rights – the right to undisturbed use and control of designated air space above a specific land area within stated elevations. Such rights may be acquired to construct a building above the land or building of another or to protect the light and air of an existing or proposed structure on an adjoining lot.
Taxation – the right of government to raise revenue through assessments on valuable goods, products, and rights.
Expropriation – the right of government to take or modify an individual's property right, especially through eminent domain, the inherent power of a government to take privately owned property, especially land, and convert it to public use, subject to reasonable compensation for the taking.
Police Power – the right of government through which property is regulated to protect public safety, health, morals and general welfare.
Escheat – the right of government that gives the state titular ownership of a property when its owner dies without will or any ascertainable heirs
Right of Way – a privilege to pass over the land of another in some particular path; usually an easement over the land of another; a strip of land used in this way for

railroad and highway purposes, for pipelines or pole lines, and for private or public passage.
Party Wall – a common wall erected along the boundary between adjoining properties; the respective owners have a common right of use.
Tenancy – the holding of property by any form of title.
Joint Tenancy – joint ownership by two or more persons with right of survivorship
Land Trust – a legal vehicle for partial ownership interests in real property in which independently owned properties are conveyed to a trustee; may be used to assemble land for development or, in some cases, to facilitate the assigning of property as collateral for a loan.
Partnership – a business arrangement in which two or more persons jointly own a business and share in its profits and losses.
General Partnership – an ownership in which all partners share in investment gains and losses and each has personal and unlimited responsibility for all liabilities.
Limited Partnership – an ownership arrangement consisting of general and limited partners. General partners manage the business and assume full liability for partnership debt, while limited partners are passive and liable only to the extent of their own capital contributions.
Stock Corporation – a common legal entity in which investors provide organizational capital by subscribing to shares that represent ownership and a right to all proprietary benefits but are subject to the prior claims of operating expenses and debt service on capital raised by selling bonds, debentures, and other money market instruments.
Syndication – a private or public partnership that pools funds for the acquisition and development of real estate projects or other business ventures.
Condominium Ownership – a form of fee ownership of separate units or portions of multi-unit buildings that provides for formal filing and recording of a dividend interest in real property.
Cooperative Ownership – each owner of stock in a cooperative building receives a proprietary lease on a specific apartment and is obligated to pay monthly maintenance which combines operating expenses and debt service.
Timesharing– Limited ownership interstes in, or the rights of use and occupancy of, residential apartments or hotel rooms. There are two forms of timesharing: fee timeshares and nonfee timeshares. Fee timeshares may be based on timeshare ownership or interval ownership. There are three types of nonfee timeshares: a prepaid lease, a vacation lease, and a club membership

Chapter 7

The valuation process begins when the appraiser enters into an agreement with a client to provide a valuation service.

The valuation process is accomplished through specific steps and the number of step that has to be done depends on the intended use of the assignment result, the nature of the property, the scope of work deemed appropriate for the assignment and the availability of the data.

In assignment to develop an opinion of market value, the ultimate goal of the valuation process is a well-supported value conclusion that reflects all pertinent factors that influence the market value of the property being appraised

Step 1: Identification of the problems

This step sets the parameters for the assignment. To solve any problem, appraisers must first identify the problem and only then can the problem be solving with appropriate solution.

This process involves:

Identify client and intended user;
Identify the intended use (ex: financing, litigation, tax reporting etc.);
Type of value and its definition;
Identify the effective date of the opinion of value;
Identify the relevant characteristic of the property (the real property right being appraised, location, economic characteristic, other physical characteristic);
Legal characteristics (land use and zoning regulation);
Assignment condition (extraordinary assumption and hypothetical condition)

Step 2: Scope of work determination
Scope of work determines what needs to be done in order to solve the client's problem.
Scope of work refers to the amount and type of information researched and the analysis applied in the valuation assignment. Scope includes, but is not limited to, the extent of: identification and inspection of the subject property, research into physical and economic factors that could affect the subject property, data research,

verification, and inspection of comparable, type and extent of analyses applied
Scope of Work

- The level of detail?
- What were you asked to do?
- What did you do?

Step 3: Data collection

There are two types of data to be collected when carrying out appraisals: (1) general data is information on the country, province, municipality, and neighborhood categorized under social, economic, political, and physical factors; (2) specific data that relates to the property and its rights. That include physical, legal, locational, cost, income and expense information about the properties and the detail of comparable sale and also financing arrangement that could affect selling price.
We can resume that to Market area data, Subject property Data and comparable Property Data.

Step 4: Data Analysis

There are 2 analyses to be made

Market analysis	Highest and best use
Demand studies	Site as thought vacant
Supply Studies	Ideal improvement
Marketability Studies	Property as Improved

Step 5: Site value opinion

Find the land value through one of the different techniques. The most common way to estimate land value is by direct comparison approach.

Step 6: Application of the Three Approaches to value

1. Direct comparison approach 2. Cost Approach 3. Income Approach.

Step 7: Final reconciliation of value indication

The last step is to reconcile the values from the approaches into a final estimate of value, either as a single figure or a range of value.

The appraiser analyses the approaches used and considers the reliability and applicability of each before arriving at the final estimated value.

Step 8: Reported of define Value
The final value is based on the appraiser's opinion and reflects their judgment. It is usually a written report and conforms to the CUSPAP standards.
The report of the value opinion, which is the last step in the valuation process, addresses the data analyzed, the methods applied, and the reasoning that leads to the value conclusion.

Chapter 9

- Market analysis is a process for the identification and study of the market for a particular economic good or service
- Market analysis considered at two levels:
    1. **Broad Market** à when a specific property *is not* the focus of the study, the term market study is normally employed
    2. Market in which a given property competes
- Market analysis applied to a specific property is of particular importance in the valuation process à often referred to as *Marketability Study*
- All appraisals must include a marketability analysis à includes market analysis & an estimate of capture
- Market / marketability analysis requires the appraiser to analyze the buyer / seller market as well as the user market à these two markets usually differ from one another
- Market delineation for valuation has two main parts:
    1. Analysis of the user market (owners, occupants & competition)
    2. Analysis of the buyer / seller market
- Market / marketability analysis must show how the interaction of supply and demand affects the property's value
    - Identifies when adequate demand for a project will emerge and helps forecast the timing of a proposed improvement and the amount of demand anticipated in a particular period of time
    - Helps forecast how much the subject property will capture (e.g. future absorption and operations outlook for future occupancy and rents)
    - Provides a basis for determining highest and best use of a property

Demand

- Demand analysis focuses on identifying the potential users of a subject property
- For each particular type of property, demand analysis focuses on the end product or service that the real estate provides à demand analysis for retail space attempts to determine demand for retail services generated by potential customers in the market area

§ Demand analyses for residential and retail markets specifically investigate the households in the subject's market area

Focus on disposable income (effective purchasing power), age, gender, preferences & behavioural pattern

Demand for housing & most retail is projected based on growth rates in population, income & employment levels

1. Rate of household formation varies significantly with income & age groups à estimating the # of households in an area by dividing the total population by the average household size may result in considerable error
2. Household size is not a constant
3. Average real income per capita in Canada must be calculated in constant dollars. Income projections based on current dollars will thus reflect future, inflated dollars à if real incomes are diminishing, effective demand might decrease in spite of the apparent increase in affordability
4. Population projections for small areas may be misleading à should consult projections for overall metropolitan area. Land availability & adequacy of infrastructure will help determine how much of the overall projected growth will go to that area

Factors of Demand – Residential Market	*Factors of Demand – Retail Market*
§ Population,	

Competitive supply

§ Supply refers to the production & availability of the real estate product

§ Must compile an inventory of properties that compete directly with the subject

Stock of existing units, units under construction, those that will enter the market and projects in planning

Caution: some units may not be constructed; some number of units may be lost to demolition and must consider the number of units added or removed via conversion

§ Other factors studied in analyzing supply:

Availability and price of vacant land, costs of construction and development, availability of construction loans & financing, impact of building codes & zoning, causes for vacancies and conversion to alternative uses, special economic conditions, circumstances & regulations

Market equilibrium

§ Supply of and demand for real estate should theoretically move toward equilibrium over the long-term – seldom achieved

Types of Analysis

§ The discipline of market/marketability analysis comprises several related types of analysis

1. **Economic Base Analysis**
2. **Market Studies & Marketability Studies**
3. **Feasibility Analysis**

Analyzing hotel demand

§ The source of demand for hotel rooms depends largely on the nature of the subject property (i.e. a commercial establishment, a conventional hotel or a leisure or resort property)

Step 1: *Property Productivity Analysis*

- The following attributes of a hotel's site and improvements are important factors in determining the property's competitiveness
  - v Size, room rate structure, décor & physical appearance, quality of management, chain affiliation, facilities & amenities, quality & character of the market area, and Revenue per Available Room
- The importance of these factors may depend on the type of lodging being analyzed (access & visibility will be more important in highway-oriented property, but amenities will be more important for a resort hotel)
- The location of a hotel often indicates the likely clientele

Step 2: *Market Delineation*

- Defining the market area can be difficult because this type of property does not necessarily rely on households in nearby communities to generate demand
- Linkages to sources of visitations in the area can be more significant

Step 3: *Forecast Demand*

- Inferred analysis of demand for hotel rooms may include
  - v Travel & tourism data, occupancy rates at competitive lodging facilities in the subject's class & market area,

The Appraisal of Real Estate
Chapter 10 Notes

Chapter focuses on the description and analysis of the land component of real property.

Appraiser can undertake appraisal assignments to develop an opinion of the value of land only or to value both land and improvements; must provide a detailed description and analysis in both cases.

The term “site” is often more precise than the term “land” since appraisers typically deal with land that has been improved.

Parcel of land can have various site improvements that enables the vacant parcel to support a specific purpose.

- Can have on-site and off-site improvements
    - **On-site=** landscaping, site grading, access driveways, drainage improvements, accessory buildings, and support facilities
    - **Off-site=** Utility lines, access to roads, and water, drainage, and sewer

Site Description= A comprehensive listing of site data, including a legal description, other title and record data, and improvement on the site’s physical characteristics.
Site Analysis= Goes further than site description. It’s a careful study of factual data in relation to market area characteristics that create, enhance, or detract from the utility and marketability of specific land or a given site as compared with other sites with which it competes.

- Requires appraiser to gather data that will indicate the highest and best use of the site as though vacant.

LEGAL DESCRIPTIONS OF LAND

Legal Description= A description of land that identifies the real estate according to a system established or approved by law; an exact description that enables the real estate to be located and identified.

- Land within one set of boundaries may be referred to as a parcel, lot, plot or tract (used interchangeably, but should be consistent throughout same report)
- A parcel of land generally refers to a piece of land that can be identified by a common description and Is held in one ownership.
- A legal description identifies a property in such a way that it cannot be confused with any other property.

In Canada 3 methods are commonly used in legal descriptions of real property.

1. **Metes and Bounds System:** = A system for the legal description of land that refers to parcel's boundaries, which are formed by the point of beginning (POB) and all intermediate points (bounds) and the courses or angular direction of each point (metes).
    - Total stations are now commonly used to collect data in digital form.
    - Oldest method
    - Starts at the point of beginning (POB) and moves along past several intermediate reference points before returning to the POB.
    - The return to the POB is called closing and is necessary to ensure the survey accuracy
    - Used across the country as a corollary to the rectangular survey system, especially in describing unusual or odd- shaped parcels of land.
2. **Rectangular Survey System:** = A land survey system called the Dominion Land Survey (DLS), used in Western Canada and to a lesser extent Ontario; it divides land into townships approximately six miles square, each normally containing 36 on-square-mile sections of 640 acres, except when adjusted to the curvature of the earth.
    - **Base line=** In the government survey system of land description, a line running due east and west through the initial point of a principal meridian from which township lines are established.
    - **Principal meridian=** In land surveying, major north-south lines established as general reference points. They converge towards the North Pole. Therefore, the north edge of every township is slightly larger than the south. Each principal meridian has a unique number and is crossed by its own base line.
3. **Lot and Block System**: = A system for the legal description of land that refers to parcels' lot and block numbers, which appear on recorded plans of subdivided land. These plans are registered at provincial and territorial land registry and land titles offices.
    - Developed as an outgrowth of the rectangular survey system and can be used to simplify the locational descriptions of small parcels.
    - Sometimes referred to as the recorded plat survey system or the recorded map survey system
    - Established when developers subdivided land in the rectangular survey system and assigned lot numbers to individual sites within blocks.

TITLE AND RECORD DATA

Before on-site inspection appraiser should obtain an appropriate description and other property data from the client or from published sources and public documents.

Constructive notice= The accessibility of public records. Ensures the ability to research and or contest deed transfers.

The Torrens system= System of land registration used in some Canadian provinces in which the land title authority issues title certificates covering the ownership of land, which often serve as title insurance.

Ownership Information

If an appraiser values a partial interest in a property rather than the fee simple interest, the appraiser should indicate and carefully analyze the excluded elements of title

- Appraiser must identify any excluded rights that may affect value. Title data indicates easements, rights of way and other restrictions that might limit the use of the property.
- Easements that are not used for a finite period of time may be automatically terminated and access without written permission may give the user a perspective easement.
- Restrictive covenant could be cited on title that limits use

Zoning and Land Use Information

Appraiser must consider all current regulations and the likelihood of a change in the law.

- Local governments usually regulate land use and development, but they are often subject to regional, provincial and federal controls as well.
- Zoning and other land use regulations usually controls use and building standards
- **Use by Right=** Uses of a property without reservation or recourse to legal intervention. Usually identified in the zoning ordinance.

Highest and best use recommendations may rely on the probability of a zoning change. The highest and best use must be legal permissible and appraiser must do research to forecast the possibility.

Assessment and Tax Information

Real property tax in all jurisdictions is based on **ad valorem** assessments

- Reliability of local assessments as indicators of market value varies from district to district

PHYSICAL CHARACTERISTICS OF LAND

How the physical characteristics of the site influence value and how the physical improvements relate to the site and to neighbouring properties

The physical characteristics of a site relate to size, shape, plottage potential, corner influence, the presence of excess or surplus land, topography, available utilities, on-site and off-site improvements, location and environment.

- Generally, as size increases unit price decreases.
- Different perspective uses have ideal size and depth characteristics that influence value and highest and best use

- **Corner Influence=** The effect on value produced by a property's location at or near the intersection of two streets; the increment in value or the loss of value resulting from this location or proximity. Could be beneficial for a business location, but negative for a home.
- **Plottage=** The increment in value when two or more sites are combined to produce greater utility. Plottage value may also apply to an existing site of a special size or shape that has greater utility than more conventional, smaller lots.
    - **Assemblage=** The combining of two or more parcels, usually but not necessarily contiguous, into one ownership or use; the process that creates plottage value.

Excess Land and Surplus Land

Excess land= Land that is not needed to serve or support the existing improvement. The highest and best use of the excess land may or may not be the same as the highest or best use of the improved parcel. Excess land has the potential to be sold separately and must be valued separately.

Surplus land= Land that is not currently needed to support the existing improvement but cannot be separated from the property and sold off. Surplus land doesn't have an independent highest and best use and may or may not contribute value to the improved parcel.

Topography, Geodetic Survey Program, Soil Analysis, Floodplain and Wetlands Analysis have been omitted due to it not being testable (pg. 10.12-10.17)

Utilities

Appraiser investigates all the utilities and services available to a site.

- Should determine the location and capacity of the utilities and note any unusually high connection fees.
- The cost of installing utilities is considered in the highest and best use conclusion and may be reflected directly or indirectly in the analysis, depending on the selection of comparable sales used in the valuation.

Site Improvements

Land-to-building ratios and overall site configuration are usually important to a site's appeal and ability to support specific uses.

Parking space-to-building ratio is important if used for commercial or industrial use. Zoning codes and parking bylaws will specify the minimum number of spaces required.

Accessibility

Time-distance relationship between the subject site and other sites that serve as common origins and destinations.

Traffic volume can be advantageous or disadvantageous to a site

ENVIRONMENT

Appraiser must analyze the environmental and climatic advantages and constraints to determine the proper land use for a site.

Environmental considerations include factors such as:

- Local climate
- Availability of adequate/satisfactory water supply
- Pattern of drainage
- Quality of air
- Presence of wildlife/endangered species habitats
- Location of earthquake faults and known avalanche zones
- Proximity to streams, wetlands, rivers, lakes, or oceans

Key terms and definitions set out by professional standards and used by appraisers who may be involved in the valuation of environmentally impacted properties.

- **Diminution of value=** Difference between the unimpaired and the impaired values of the property. Can be due to increase risk or costs (or both) attributable to the properties environmental condition.
- **Environmental Contamination=** Adverse environmental conditions resulting from the release of hazardous substances into the air, ground water, surface water, or soil. Generally, the concentration of these substances would exceed regulatory limits.
- **Environmental Risk=** Additional incremental risk of investing in, financing, buying or owning property attributable to its environmental condition. Risk derived from perceived uncertainties concerning; 1.) The nature/extent of contamination 2.) Estimates of future remedial cost and timing 3.) Potential of changes in regulatory requirements 4.) Liabilities for cleanup 5.) Potential for off-site impacts; and 6.) Other relevant risk factors.
- **Environmental Stigma=** Adverse effect on property value produced by the markets perception of increased environmental risk.
- **Impaired Value=** Market value of the property with full consideration of the effects of its environmental condition. The as-is value.
- **Remediation cost=** The cost to cleanup to the appropriate regulatory standards. Can include the on-site contamination and the off-site impacts due to migrating contamination.
- **Remediation lifecycle=** Cycle consisting of 3 stages of cleanup- before, during and after. Stage is an important determinant of the risk associated.
- **Source Site=** Where contamination is

- **Non-Source Site=** Contamination generated from source site and has migrated onto
- **Adjacent Site=** Not contaminated, but shares a common property line with the source site
- **Proximate Site=** Not contaminated and not adjacent, but are in proximity
- **Unimpaired Value=** Market value of the property under the hypothetical condition that the property is not contaminated.

SPECIAL CHARACTERISTICS OF RURAL, AGRICULTURAL, OR RESOURCE LAND *Has been omitted due to it not being testable (pg. 10.24-10.27)

Chapter 12 – Highest and Best Use Analysis

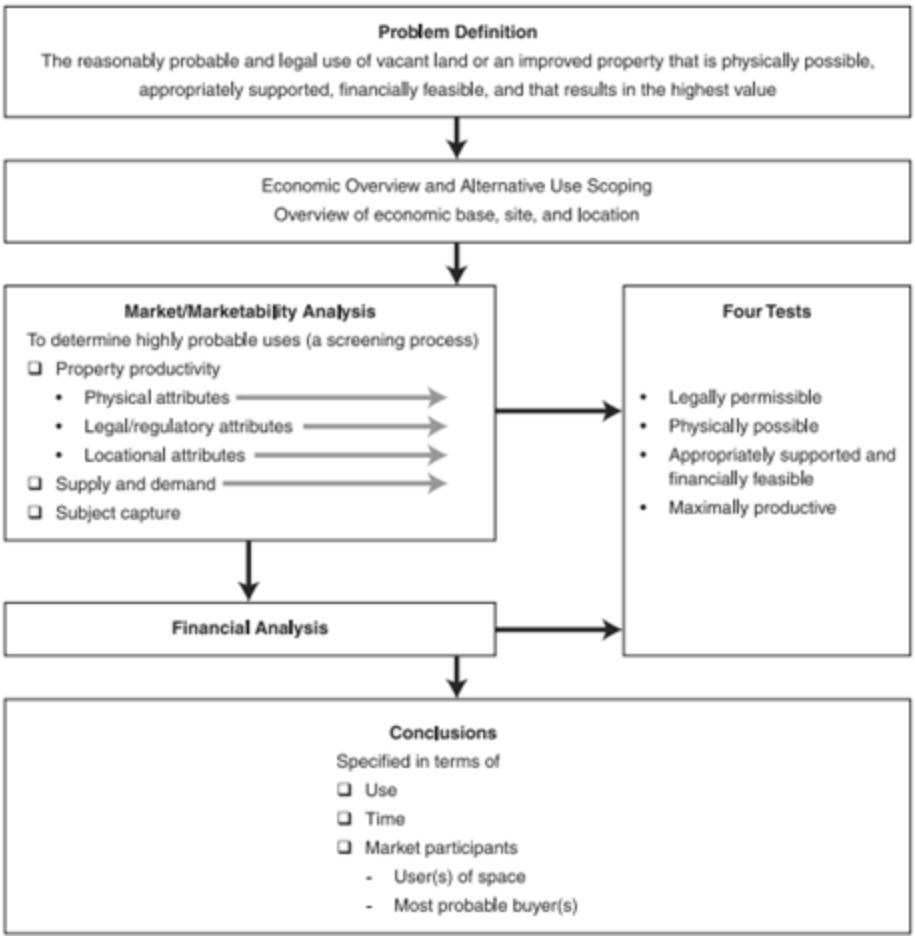
Fundamentals of Highest and Best Use:

- **Highest and best use (HABU) defined as:**
    1. **"The reasonably probable and legal use of vacant land or an improved property that is physically possible, appropriately supported, and financially feasible and that results in the highest value"**
- **Analysis of HABU is on the potential uses of the land as though vacant**
- **Seek to answer several questions:**
    1. **Should the land be developed of left vacant?**
    2. **If left vacant, when would future development be financially feasible?**
    3. **If developed, what kind of improvement should be built?**

The four tests:

1. **Legally permissible**
2. **Physically possible**
3. **Financially feasible**
4. **Maximally productive**

The Market Analysis Process and Four Parallel Tests



Application of Highest and Best Use Analysis

- **Builds on the conclusions of market/marketability analysis**
- **As vacant: focus on alternative uses with the four tests**
- **As improved: apply the four tests to:**
    1. **Demo existing improvements and redevelop**
    2. **Continue with existing**
    3. **Modify existing**

Highest and Best Use of Land as though Vacant

- **HABU of land as though vacant must be considered in relation to its existing use and all potential uses**
- **Used in nearly all appraisal assignments**
- **Concluded by applying the four tests and eliminating alternative uses**

Legal Permissibility of Land as though Vacant

- **Test private restrictions, zoning, building codes, historic district controls, and environmental regulations**
- **What are the chances that zoning or other restrictions will be changed in the near future?**
- **Determine which uses:**

1. **are permitted with current zoning**
2. **could be permitted if a zoning change were granted**
3. **are restricted by private restrictions on the site**

Physical Possibility of Land as though Vacant

- **-address the physical characteristics associated with the site that affect HABU**
    1. **Size, shape, terrain, accessibility of land, and risk of natural disasters**
    2. **Frontage, depth, shape of parcel, visibility**

Financial Feasibility of Land as though Vacant

- **Site must meet legal and physical before testing financial**
- **Timing analysis crucial, when will the improvements be finished, future expectations of occupancy and rent levels**
- **Risk must be weighed with all other feasibility factors**
- **For income-producing uses:**
    1. **Must be supported by the six-step market/marketability study**
    2. **Focus on which potential uses are likely to produce and income equal or greater than the amount needed for expenses**
    3. **Estimate the future gross income that can be expected from each use, minus collection losses and operating expenses to find NOI. Then a rate of return on the invested capital can be calculated.**
    4. **If the net revenue capable of being generated is sufficient to satisfy the required market rate of return on the investment, the use is then financially feasible**
- **For non income-producing uses:**
    1. **Determine which uses are likely to create a value in a profit equal or greater than the amount needed to develop the property**
    2. **Economic analysis comparing the value benefits that accrue from the use against the costs involved**
    3. **If the value benefits exceed the costs, then the use is financially feasible**

Maximum Productivity of Land as though Vacant

- **Only once past the other three tests**
- **The use that produced the highest residual land value consistent with the markets acceptance of risk and with the rate of return warranted by the market for that use given the associated risk**
- **Rates of return that reflect the associated risks are often used to capitalize income from different uses into their respected values.**
- **Or land sales to users can be used to test which alternative is maximally productive**

- **The use that produces the highest residual land value is the HABU**
- **Residual land value can be found by estimating the value of the proposed use and subtracting and subtracting the cost of labour, capital, and entrepreneurial coordination expended**

Conclusion of Highest and Best Use as though Vacant

- **-should be clearly stated in terms of the following:**
    1. **Use(s)**
    2. **Timing for use(s), i.e., absorption, rents, occupancy, and other considerations**
    3. **Market participants**
        a) **Users**
        b) **Most probable buyers/tenants**
- **Should be as specific as the appraiser's research allows and the assignment requires**

The Ideal Improvement

- **Takes maximum advantage of the site's potential market demand**
- **Conforms to current market standards and the character of the market area**
- **Contains the most suitably priced components**

Highest and Best Use of a Property as Improved

- **Relates to the use that should be made of an improved property looking at the existing improvements and the ideal improvement concluded from the analysis of highest and best use as though vacant**
- **3 possibilities:**
    1. **Demolish the existing improvements and redevelop the site**
    2. **Continue the existing use**
    3. **Modify the existing use**
- **When appraising for proposed improvements, develop market value based on:**
    1. **Subject to the hypothetical condition that the improvements are built as of the current date, OR,**
    2. **Subject to the extraordinary assumption that the improvements are built as of a future date**

Testing Continuation of the Existing Use of the Property as Improved

- **Often legally permissible and physically possible**
- **If existing use is more financially feasible and is more profitable, than existing will remain HABU**
- **Must check deferred maintenance, cost of curing physical deterioration or functional obsolescence**

- **The effect of the changes on value is more important than simply how much the changes will cost**

Testing Modification of the Existing Use of the Property as Improved

- **Modification must meet all four tests**
- **For non conforming properties, determine whether the codes, ordinances, or private restrictions allow modification**

Testing Demolition of the Property as Improved and Redevelopment

- **Most extreme form of modification**
- **Only when an alternative use fits the four tests better than current use**

Special Situations in Highest and Best Use

Single Uses

- **A unique or special-purpose land use that may not be consistent with surrounding uses**

Legally Nonconforming Uses (grandfathered use)

- **A use that was lawfully established and maintained, but no longer conform to the use regulations of the current zoning in the zone where it is located**
- **Zoning changes may create under improved or over improved properties**
- **When valuing, an appraiser must recognize that the current use may be more producing more income, and thus have more value, than the property with conforming use therefore they must consider the risks and limitations with the nonconformity.**

Interim Use

- **The temporary use to which a site or improved property is put until it is ready to be put to its future highest and best use**
- **Current HABU that is likely to change in a relatively short time**
- **Must take into account differences in the interim uses of comparable properties even though their future HABU are identical**
- **Value or an improved property may be less than the value of the land as though vacant when demolition costs and real estate taxes are considered**
- **The value of land is based entirely on its potential HABU**
- **Principle of consistent use: land cannot be valued based on one use while improvements are value based on another**
- **Speculative Investment: Land that is held primarily for future sale**

Land that is Not the Highest and Best Use

- **Concept of Consistent Use: an improvement must be valued based on a use that is consistent with the properties HABU**
- **The HABU may be in the same category as the existing use, but not the ideal improvements**

Mixed Uses

- **A combination of compatible land uses in an area or in a single building**
- **Must estimate the contributory use of each use**

Special-Use Properties

- **Appropriate for only one use or for a very limited number of uses**
- **HABU of a special-use property as improved is probably the continuation of its current use if that remains viable**
- **Often requires two valuation scenarios:**
    1. **A market value based on the property's HABU**
    2. **A use value that presumes the existing use**

Reporting Highest and Best Use

- **When report includes a market value opinion the report must address HABU**
- **When report includes a market value opinion for the site as though vacant the report must address HABU as though vacant**
- **When report includes a market value opinion for the property as improved the report must address HABU as improved**
- **The conclusions in the HABU should be consistent with the conclusions in the other parts of the report**

Table 12.1: Highest and Best Use Statements in Appraisal Reports

If . . .	The land is already improved to the highest and best use.
Then the report should include . . .	A discussion of this analysis and conclusion.
If . . .	The highest and best use of an improved property is different from its existing use.
Then the report should include . . .	Justification for this conclusion in a market value appraisal report.
If . . .	The property is improved but a separate estimate of land value is presented in the appraisal.
Then the report should include . . .	Discussion of the highest and best use of the land as though vacant as well as the highest and best use of the property as improved.
If . . .	A separate estimate of land value is not presented, and continued use of the property as improved is an appropriate limiting condition of the appraisal.
Then the report should include . . .	Discussion of only the highest and best use of the property as improved, unless the highest and best use of the land as though vacant is relevant to the analysis of highest and best use as improved.
If . . .	The highest and best use of the land as though vacant and highest and best use of the property as improved are different.
Then the report should include . . .	Discussion of the analysis of each highest and best use separately.

CHAPTER 13
(The Direct Comparison Approach)

- **The appraiser develops an opinion of value by analyzing closed sales, listings or pending sales of properties that are similar to the subject property.**
- **A major premise of the direct comparison approach is that an opinion of the market value of a property can be supported by studying the market reaction to comparable and competitive properties.**
- **Elements of comparison are tested against market evidence using paired sales, trend analysis and statistics.**

When adequate supply of comparable sales are available, the direct comparison approach may be used to value:

1. **Improved properties**
2. **Vacant land**
3. **land being considered as though vacant**

Relation to Appraisal Principles:

Supply and Demand:

- **Buyers create market demand and properties offered for sale make up supply.**
  - **To estimate demand, appraisal consider number of potential buyers for a particular property, their purchasing power and their taste and preferences.**
  - **To analyze supply, appraiser look at the existing properties for sale and properties that are being constructed, converted or planned.**
- **Lower interest rates increase the market demand due to increase in purchasing power and when loan money becomes scarce either due to higher interest rates or restrictive underwriting standards, market activity can be extremely reduced.**

Substitution:

- **Buyer would not pay more money for a property than what he would pay to acquire a substitute property of similar utility and desirability within a reasonable amount of time.**
- **Reliability of the direct comparison approach diminished if substitute properties are not available in the market**

Balance:

- **Both the relationship between land and improvements and the relationship between a property and its environment must be in balance for a property to achieve its optimum market value.**
- **Over improvements and under improvements can lead to functional obsolescence that may need to be accounted for in direct comparison approach.**

Externalities:

- **External forces affect all types of properties in positive and negative ways.**
- **Two competitive properties with identical physical characteristics may have quite different market values if one of the properties has less attractive surroundings.**
- **Convenience of transport facility, police protection, lighting of streets, tax burden and proximity to shopping and restaurant facilities makes one location more or less attractive than another.**

Market Analysis and Highest and Best use:

- **Comparable properties should have the same highest and best use as the subject property.**
- **the comparable properties should bracket the subject property - some being superior, some inferior with respect to attributes and unadjusted price.**

Applicability and Limitations:

1. **It reflects the actions of buyers and sellers and therefore should result in market value.**
2. **It is easily understood and explainable.**
3. **Good if many recent sales of similar properties are available so a value pattern or trend in the market may be identified.**
4. **Useful in supporting conclusions in other approaches - in developing a value bracket for cost and income approach.**

Limitations:

1. **In some cases, comparable sales are difficult to find, being either few in number or non-existence.**
2. **Less reliable if there is a lack of sales.**
3. **Less reliable for special use buildings eg government buildings, churches, sports arena, etc.**
4. **Limited use for income producing properties.**
5. **Difficulties may be encounter in making comparison between properties and between locations.**
6. **Prices may not reflect current market activity since prices are historical.**

7. **Listings or unconditional offers may need to be used to indicate a value range, even though they are not completed sales transaction.**

Procedure:

Research: Research the comparable sales in the comparative market that are as similar as the subject property and that have recently sold, are listed for sale or under contract. Market analysis and HABU aid in the selection of appropriate comparable sales.

Verification: Verify the information by confirming that the data obtained is factually accurate and that the transaction is arm's-length.

Units of comparison: Select the most relevant units of comparison.

Adjustment Analysis: Look for differences between comparables and subject and then make adjustments.

Reconciliation: Reconcile the various value indications produced from the analysis of comparables to a value bracket and then to a single value indication.

Researching Transactional Data:

- **Appraiser can gather data on sales, listings, contracts, offers, refusals from the properties that are similar to the subject.**
- **Appraiser thoroughly researches the prices, real property rights conveyed, financing terms, motivations of buyers and sellers, expenditures made immediately after purchase and dates of sale.**
- **Consider details on each property's location, physical condition, functional utility, economic characteristics, use and non realty components of value.**
- **Consider market changes but appraiser must be careful not to project trends without current, reliable market support.**

Data Sources:

- **Public records eg. land titles or land registry records.**
- **Multiple Listing Services**
- **Interview with buyer, seller, attorneys, appraisers, counselors, brokers, property managers and lenders.**
- **Appraiser's own files and associate's information.**

Verifying Transactional Data:

- **Verify information with a party to the transaction to ensure accuracy.**
- **Talk to brokers, closing agents, or lenders involved.**
- **Owners and tenants of neighbouring properties may also provide useful help.**

Selecting units of Comparison:

- **Units of comparison selected depend on the appraisal problem and nature of the property.**
- **Appraisers use units of comparison to facilitate comparison of the subject and comparable properties.**
- **For different unit of comparisons see table 13.1 on page 13.10.**

Analyzing and Adjusting Comparable Sales:

- **Adjust the comparables for any differences.**
- **Use market data grid (see table 13.2 on page 13.12) to show adjustments and final adjusted figure.**

Identification and Measurement of Adjustments:

- **Quantitative and qualitative adjustments are made.**
- **Quantitative adjustments are either made in dollar or percentage amount.**
- **Factors that cannot be quantified are dealt with in qualitative analysis.**
- **Adjustments can be made either to total property prices or to appropriate units of comparison.**
- **Often the transactional adjustments are made to the total sale price.**

Elements of Comparison:

Transactional Adjustments

1. **Real property rights conveyed**
2. **Financing terms**
3. **Condition of sale**
4. **Expenditures made immediately after purchase**
5. **Market conditions**

Property Adjustments

6. **Location**
7. **Physical characteristics**

8. **Economic characteristics**
9. **Use**
10. **Non-realty components of value**

Sequence of Adjustments:

- **The transactional adjustments are generally applied in the order listed above.**
- **The property adjustments are usually applied after the transactional adjustments, but in no particular order.**
- **The sequence can vary depending on the availability and reliability of sales information.**
- **Most property types other than one-unit residence are adjusted on a unit price basis. Property adjustments are typically applied to a unit price.**

Reconciling Value Indications in the Direct Comparison Approach:

- **The comparables values are resolved into a range of value or a single value indication i.e. a point estimate.**
- **The appraisal report should clearly communicate how the appraiser arrived at final value using the direct comparison approach**
- **Reexamine major elements of comparison for which no adjustments were made and to explain why these elements of comparison did not require any adjustments.**
- **The appraiser often asks following questions:**

    - **Does the comparable property have the same highest and best use?**
    - **Are the comparable similar in terms of physical characteristics and location?**
    - **Was it developed, rented or sold in the same market as the subject?**
    - **Is the transaction similar to the sale of the subject?**
    - **Would a purchaser consider the comparable an alternative to the subject?**

Unit of Comparison and Real Property Interests in the Reconciliation Process:

When arriving at final value indication, the appraiser must ensure the value concluded is consistent with the intended use of the appraisal and the value indications derived from the other approaches to value.

Chapter #15 – Applications of the Direct Comparison Approach (DCA)

Reviews specific scenarios where the DCA is used.

Textbook is dedicated to commercial, income producing properties (workbook reviews residential).

Market data grids and adjustment tables are essential elements of the DCA.

Highlights that use of both quantitative and qualitative techniques in the approach.

Quantitative adjust made first and then qualitative. Often appraisals require a combination of both types of adjustments.

SEQUENCE OF ADJUSTMENTS & TYPICAL CLASSIFICATION OF Q VS Q:

- **Step 1 – Rights Conveyed**
- **Step 2 – Financing Terms**
- **Step 3 – Conditions of Sale (Motivation)**
- **Step 4 – Expenditures Made immediately after purchase**
- **Step 5 – Market Conditions (Time)**
- **Step 6 – Location**
- **Step 7 – Physical Characteristics**
- **Step 8 – Economic Characteristics**
- **Step 9 – Use/Zoning**
- **Step 10 – Non-Realty Items**

OFFICE BUILDING EXAMPLE:

Similar Characteristics of comps (no adjustments):

- **All involved the transfer of a leased fee interest (rental income / property rights).**
- **All transacted with conventional mortgage financing.**
- **All arms length.**

QUANTITATIVE ADJUSTMENTS:

- **Expenditures made immediately after purchase**
- **Market conditions (increase of 8% annually calculated with avg rates and time since sale)**

QUALITATIVE ADJUSTMENTS (revealed general trends but did not support quantitative adjustments):

- **Ratio of parking**
- **Location**
- **Expense ratio**

- **The review of each comp essentially counts the number of good vs bad characteristics:**
- **More negative traits in the comp than positive, then the subject property should have a higher price than the comp, and visa versa.**
- **Whichever comp is the closest should receive the most weight.**

RECONCILIATION:

- **Subject property bracketed by superior and inferior comps.**
- **Rounded price per square foot chosen from within range ($76-78.62 – price chosen to be $78.00)**

INDUSTRIAL BUILDING EXAMPLE:

- **All were arms length (no adjustment for Condition of Sale)**

QUANTITATIVE ADJUSTMENTS:

- **Subject had a beneficial financing that required a downward adjustment.**

- **Expenditures made immediately after purchase - $35K**
- **Market conditions (increase of 4% annually calculated with avg rates and time since sale)**

QUALITATIVE ADJUSTMENTS:

- **Each characteristic (construction quality, age of improvement, ceiling height etc.) used its own relative comparison table noting "inferior", "similar" and "superior" for each comp.**
- **The "Overall Comparability" table tally's the total for each property and labels each property as either "inferior", "similar" and "superior".**

RECONCILIATION:

- **Subject property should fall between value range of "similar" properties and should be bracketed by superior and inferior comps.**
- **A number from within the range of the similar properties is chosen and applied to the square footage value**
- **Final adjustments broken into per square foot amounts**
- **Price per square foot x square footage = total value.**

FROM THE WORKBOOK (RESIDENTIAL FOCUS):

Financial adjustment calculations shown but not required for this course.

Financing adjustment and conditions of sale adjustments can be determined by:

- **Paired sales analysis**
- **Interviewing those involved to determine what value they placed on the financing component.**

Adjustments for Expenditures Made refer to any kind of repairs to doors, windows fences etc.

For Market Conditions, paired sales analysis is the best (multiple sets are recommended).

Other than the amount per square foot (or metre), a % change can be used (see below).

- **MLS statistics often used to verify trends in increasing/decreasing values**
- **MLS graphs for a "Market Conditions Factor" referring to a price trend uses a base year (first year on x-axis) and all other years compared to it.**
  - **Example: 1996 price was $100K, $100K/$100K = "factor" of 1 (first number on y-axis)**
  - **Further on the graph – 2006 factor is 2.08 = $100K x 2.08 = $208K – the price ten years later.**
  - **Or use two specific sections of the graph to determine a percentage increase:**
  - **Ex: August 2006 factor was 2.08, July 2007 was 2.23: 2.23/2.07 – 1 = 7.2% change**

- **MLS Median data can also be used**
  - **Ex: Assume a median sale price in June 2008 of $325K and a median sale price in December 2008 (6 months) of $350K: $350/$325 – 1 = 7.7% change.**

- **Median data incorporates multiple home styles (bungalows, two-story etc.) but the principle still shows a typical trending, partially due to the principle of conformity.**

- **Cautions for data:**

Two methods shown for Location Adjustment. Paired sales data comparison table:

Or, comparing the percentage change between two properties:

- **Difference between the two noted properties is $3,400: $3,400 / $123,500 = 2.75%.**

Therefore, properties located in good locations are likely 2.75% higher in value.

Same principle as above for Physical Characteristics (good vs. average or average vs. poor etc.)

Zoning – hopefully adjustments not required! (should be sufficient comps with same zoning).

- **Stick with same structure style (single-family vs. multi-family) even if zones are slightly different (re: setbacks etc.)**

House Size, the example provides a scenario where the depreciated value is what is required to be compared:

- **Sale Price – Lot (land) Value + Site Improvements (landscaping etc.) + Garage = Depreciated Value**

- **All adjustments must be supported by market evidence.**
- **Once all comps and adjustments are made, prepare the Comparison Table (should have 3-5 comparable properties – example only has two :P)**

Notable differences:

Sale #1:
- **Vendors were anxious to sell - $1K**
- **Time – sold one month earlier – 1% adjustment**
- **Size inferior- $1.5K**
- **Location inferior – 3%**
- **Basement not finished - $2,500**
- **Double Garage - $3K**
- **Condition inferior – 1%**

Sale #2:
- **Preferable financing - $2K**
- **Size inferior- $1K**
- **Location inferior – 2%**
- **Basement not finished - $1,500**
- **Double Garage - $2.5K**
- **Condition inferior – 1%**

- **Make sure to lower the range, not widen it! Otherwise, you did it wrong.**
- **Sale 2 had less adjustments so it held more weight in final reconciliation.**

- **The final reconciliation is subjective however must be justified by market evidence and the reasoning for the decision documented in the appraisal report.**
- **Appraisal is both an art and a science. Experience is important however it is grounded in science!**

Important points about Reconciliation:

- **Logic should be clear and appear sensible.**
- **NEVER average results – One approach or the other is best estimate instead of some arbitrary middle point.**
- **A range of values may be appropriate in some circumstances, depending on the problem.**

QUALITATIVE ADJUSTMENT TECHNIQUES

- **Example provided of when you purchased your first used car. Unlikely that there was enough comparable data that would provide a value for each characteristic (colour, mileage, seat feeling etc.) – decisions made by qualitative determination.**
- **Can be difficult to determine value if all comps are either inferior or superior to subject property and then can only provide a range of values.**

- **Typically quantitative analysis is the primary valuation technique, supported by the qualitative analysis.**

Qualitative Analysis Usually involves (in this order):

1. **Relative comparison analysis**
2. **Ranking analysis**
3. **Personal interviews**

The steps are:

- **Thoroughly describe each index**
- **Create a quality table rating major attributes (no $ or % amounts)**
- **Rank the indices, include the subject property in the ranking**
- **Reconcile in the appropriate order and assign a value to the subject within the range.**

Example in text book provides written descriptions of each "index" (property) and that information was used to populate this grid:

Some discussion regarding "Quality Points" – though not required for this course.
Case study on page 6.22 – fill your boots!

There is a 1.5 hr long webinar in online readings as well (I started to take the following notes but gave up after a bit – sorry!

- **Notes quantitative elements as the big 3: Market Conditions, Location, Size**
- **Cap rate adjustments for different locations require an inverse adjustment (higher cap rate = lower value)**

o Some calculations at 39 minutes into the webinar (calculation of location % difference - $7.50 difference from one location to the other $25 vs. $32.50 which equals a 30% adjustment from the $25 location or a 23% adjustment on the $32.50

BUSI 330 CHAPTER 16: Land and Site Valuation

RELATION TO APPRAISAL PRINCIPLES

Value concepts and Principles

- **Principles that affect value:**
  - **Anticipation: expectation of future benefits creates value**
    - **MV = PV of future benefits**
  - **Change: MV is determined by dynamic economic, political, and demographic factors like zoning, rent controls, interest rates, transportation, and local economic conditions**
  - **Supply (relatively stable) and demand**
    - **Supply for a particular use may increase/decreases (farmland vs residential)**
    - **Practical limits to development and continued growth in demand leads to higher prices & more intensive use**
    - **Local transportation networks strongly influence pattern of development and prices**
      - **Price differences between central and peripheral land have been reduced by better transport**
    - **Zoning and other land controls have opposite effect because they limit the available supply of land thus higher prices**
    - **The more immovable an item, the more price will vary by area**
  - **Substitution: buyer will not pay more for one parcel vs. equivalent parcel**
  - **Balance: when various elements of a particular economic mix or a specific environment are in a state of equilibrium, land value is sustained**
  - **HABU: MV of property depends on potential use rather than on current use alone**
    - **The more profitable a potential use, the higher the demand and MV**
  - **Surplus productivity: returns attributable to land are what remain after returns to labour, management and capital are satisfied**
    - **Income residual to land = gross income – labour cost – management cost – capital**
    - **Explains why land values an vary drastically**
- **Land supply relatively stable, but can sometimes be physically created**
- **Erosion, pollution, exhaustion through farming, change of arable land into desert impacts inventory**
- **Scarcity plus utility creates value**
  - **Land's uniqueness stems from its fixed supply and immobility. Land can't be manufactured or reproduced & is a factor of production required directly or indirectly in the production of all other goods**
- **Factors affecting land value:**
  - **Physical, environmental locational factors: largely explain patterns of land values within a city/market area**

        - Site attributes: size, topography, other physical features
        - Situation attributes/linkage: location of parcel relative to other places
        - Land Value = (projected potential gross income – expected cost)/cap rate
    - Economic factors
    - Legal, government and political factors
        - Favorable policies promote efficient land use and development
        - Fiscal policies, road construction, government services, land use control, taxes, building codes
    - Social factors: help explain patterns of land use as well as demand and price
        - Prestige plays major role in land use
            - Motives lead to "invasion" and "succession" of land uses
        - Age, distributions, education, crime rates, pride of ownership are some social factors that affect land use patterns and values
        - Developers may create demand based on social or perceived social need and then apply for rezoning for a certain type of development

Property Rights and Public Controls

- Appraisal estimates the value of the physical real estate and the property rights
- Property rights include the right to develop, lease, farm, mine, alter topography, subdivide, assemble, hold for future and construct or alter improvements
    - Site values can increase substantially after site plan approval
- Public records show easements, right of ways, and private and public restrictions
- Zoning and community plans indicate how development is to proceed
    - Government regulate in effort to encourage planned growth and compatibility among different land uses
    - Include housing, commercial, industrial, open spaces and community buildings
- Off-site improvements (water, sewers, hydro, electricity, gas) must be in place before development starts
- Government can expropriate land for development of public/non-public projects
    - Land, water, air, and mineral rights may be protected by government legislation
        - Conservation purposes held perpetually by approved agencies
- Some jurisdiction's land values is based on developmental rights, which may be transferable
    - E.g. some will compensate farmers for retaining land on for agricultural use and shift or sell the benefit of those development rights to other locations

Physical Characteristics and Site Improvements

- Consider the physical characteristics, available utilities and site improvements:
    - Size, shape, frontage, topography, location, view, contours, grade, drainage
    - Availability of water, sewers, electricity, natural gas, telephone, tv cable
- Offsite improvements: streets, sidewalks, curbing, traffic signals, water & sewer mains located off property but necessary to help development
    - Rarely valued with other property improvements, typically considered with land value

- **On-site improvements: grading, landscaping, fencing, gutter, drainage, irrigation systems, paving**
    - **Valued with property improvement**

Highest and Best Use (HABU)

- **Always consider site value based on HABU as if vacant and available for development ot its most economic use (even if have improvements on it)**
    - **Regardless of how physically similar the potential comparable site is to the subject, the property is not truly comparable if it doesn't have a similar HABU as the subject and should be dismissed from further consideration**
- **Must then consider the present improvements – do they contribute to value?**
- **Contribution of improvements = MV of improved site – MV of current site**
- **Consider demolition costs & site preparation costs of improvement don't contribute to overall property value at all**
- **Holding costs include legal fees and financing**
- **If site is being determined for a use other than HABU, must be stated**
- **May be required to distinguish between market value (MV) and use value**

Possibility of assemblage

- **Some parcels at HABU only as part of an assemblage**
    - **If so, appraiser must determine its feasibility and possibility. Consideration of the cost and timing of assembly and future demand of the site when completed become very important**
    - **Usually higher than market price paid to assemble a tract of land**
        - **Must reflect these costs in the land value estimate**
        - **Avoid summing up parts to get MV of whole and should avoid assigning the unit value of the larger parcel to the components without other market data**

Units of Comparison

- **Lot measurement or area basis:**
    - **Price/front metre or foot of lot; price/m2/sqft/sq hectare/acre of land; price/lot**
- **Density of development basis:**
    - **Price/unit or buildable unit; price per buildable m2/sqft**
- **Frontage: amount of frontage a residential property has on a lake/river/ocean may determine its value**
- **Area (land): especially useful for irregularly shaped parcels where frontage is not important**
- **Lot or bulk basis: when market doesn't indicate significant difference in land prices even when sizes are slightly different**
    - **E.g. residential lots in a new subdivision or industrial properties**
- **Units or units buildable**
    - **E.g. parking lot could be sold based on number of cars that can be parked or agricultural land sold based on yield per hectare for particular crops**
- **Buildable area**
    - **FSR = floor space ratio. FSR=8.0 means site can be developed with a building to a maximum area of 8.0 times the site area**

Land Data Analysis

- Classification: sorting of sales & other market data into homogenous groups
    - In land valuation classes should reflect geographic areas subject to different market influences
- Plotting land value data: maps with land sales & other market data to provide a picture of land value patterns
- Descriptive statistics: useful for analyzing patterns and trends in land values
    - Number of vacant land parcels, number of sales, measures of central tendency, measures of dispersion
- Graphic Analysis: help discern systematic relationships in land value
    - Usually sale price is dependant variable (y-axis)

APPLICABILITY AND LIMITATIONS OF VALUATION TECHNIQUES

- Site value analysis is typically a separate section of the report and is done before the 3 approaches to value
- Methods of land valuation (TABLE 16.1 p16.6-7):
    - Direct comparison: compare sales of similar, vacant parcels
    - Market extraction: estimate of the depreciated improvements cost is deducted from the total sale price of the property to get land value
    - Allocation: a ratio of site value to property value is extracted from comparable sales in competitive locations and applied to the sale price of the subject to develop site value
    - Income Capitalization technique:
        - § Direct capitalization: land residual technique
        - § Direct capitalization: ground rent capitalization
        - § Yield capitalization: discounted cash flow analysis – subdivision development analysis

DIRECT COMPARISON

- Preferred and most common method of valuation
- Used for vacant sites or considered vacant sites (sites with old improvements that can be demolished)
- Goal is to select the most comparable sales and adjust the comparable sales for differences
- Steps to approach:
    - Gather sales, offers, listing data
    - ID similarities and differences
    - ID HABU for each comparable and select those best for analysis
        - § If sale price have been changing quickly over recent years, comparables selected should be as close as possible to the appraisal date
    - ID units of comparison-price per square ft or front foot or per hectare
    - Make adjustments for differences between subject and comparable based on market evidence
        - § Adjust for property rights, financing, conditions of sale, expense after purchase, market conditions, location, physical characteristics, available utilities, zoning
        - § Can be developed by +/- dollar amounts, +/- percentages, multiplying factors

- § Property adjustments grouped into following categories:
  - · Depth and depth factor adjustment (33 metre = 100%) , other size adjustment (for "excess" land or undersized lots), irregular shape adjustment, corner influence, location (proximity to schools, shopping centres, transport, nuisances) and other (view, topography, traffic flow, limited access, flooding susceptibility, noises & other nuisances, golf course or water frontage, soil conditions and drainage
  - · Size is next most important after date of sale and location
    - o Most land use have an optimal size, if site is too large, value of surplus land tends to decline at an accelerating rate
- § Magnitude of adjustment depends on data and appraiser's judgments
- o Form a conclusion regarding MV
- § Final value reconciled into a single value or range, if acceptable

- Order of comparison:
  - o Zoning, then sale date, then similar location/neighbourhood, then consider offers on listings & listings themselves (although less reliable than signed contracts), personal interviews help
    - § Zoning is less important than utility or HABU in areas of transition or targeted for redevelopment

ALTERNATIVE TECHNIQUES

- Usually used when vacant land sales insufficient for direct comparison approach
- Essentially appraiser is to create vacant land comparables from market information on improved property sales. Then the manufactured vacant land sales will be analyzed by applying direct comparison approach

Market Extraction

- Land value = Sale price of improved property – Depreciated value of improvements
- Often used in rural areas because buildings and site improvements contribute little to value or useful in highly developed areas where there are few vacant land sales
- Generally more accurate for relatively new structures, where replacement cost and depreciation are more easily estimated
- Use this method only as a last resort when sales data for both vacant and improved parcels inadequate

Allocation aka Land Ratio Method

- Creates land sale comparables by calculating ratio of the contributory value of land from improved property sales, based on ratio of land value to improved property value from sales in other similar areas
  - o Based on principles of balance and contribution (typical ratio of land to property value for each type of real estate)
- Best used to estimate value of residential subdivision lots (can directly measure ratio of lot value to total property value)
- Used to approximate values when vacant land sales scarce
- Useful for older neighbourhoods where there are few sales of vacant or newly improved parcels

- Not often used in commercial properties because variances in parcel size and intensity of use
- Difficult to use when HABU and land value ratios of comparables not similar to subject
- Evidence found from mass appraisal data, observed patterns over time, consultations with developers
    - E.g. Sale $100,000 & land value is 25% of sale prices, thus land value is $25,000
- Advantage of allocation method over abstraction si that estimated improvement values are not explicitly required in analysis

Income Capitalization Procedures

- This approach uses reliable capitalization rates but difficult to obtain thus not used often except in case of subdivision development analysis

Land Residual Technique

- use when sale data of similar parcels not available
- Land use is estimated by isolating net income of land and the capitalization thereof at a market-derived land capitalization rate to provide an estimate of land
- Require building value, NOI, both building and land cap rates (can be extracted from market)
    - Small variations in any of the variables can cause dramatic change in land value estimate

Ground Rent Capitalization

- Ground rent = amount paid for the right to use or occupy the unimproved land according to a lease
    - Ground lease used when owner is a long term investment corporation who doesn't want to give up future rights to the land, but wants to permit its development by another party
- Income to the land is determined by the ground lease rate (landowners interest or leased fee estate)
- Market interest rates are used to convert ground rent income or leased fee estate into a land value
    - If current rent corresponds to market rent, value indication obtained will be equivalent to MV of the fee simple interest in the land (if not, value will need to be adjusted)
- Requires very similar expenses and upside potential to be accurate
- Can be incorrect if the risk is not the same between subject and comparable

Subdivision Method aka Cost of Development Method (e.g. TABLE 16.4 P 16.18-9)

- Appropriate for newly subdivided land or land ready for subdivision
- Based on principle of surplus productivity, assumes land value is based on development potential, not on alternative properties & does not consider other listings, but only that it is feasible to develop the project
- Use of discounted cash flow (DCF) to value potential for subdivision in the short run
    - Land must support a HABU for immediate development purposes at time of appraisal
    - The raw land value is sum of the net cash flows for each period discounted to time zero (PV of net proceeds)
- Steps to determine land value:
    - Accurately estimate HABU & create or affirm a supportable subdivision development plan

- **Determine time & cost required for development incl. the amount and size of lots that may be developed physically, legally & economically**
- **Forecast lot absorption rate and price mix & marketing required**
- **Estimate a market-supported timeline for permitting, construction and absorption period**
- **Estimate annual real estate taxes and other misc. expenses over 3 stages of development**
- **Consider management supervision/administrative costs as part of development expenses**
- **Choose a yield capitalization method**

- To develop an "as is" value, property must have current zoning and land use permission in place to support development proposal
- Use bulk sale scenario to develop the value of all lots
- Entrepreneurial profit accounted by selection of a discount rate or as a line expense
- Deduct all costs of permitting, construction, and absorption (the 3 phases of development) of all lots over time until last lot is sold with the analysis
- If value indication from DCF analysis is less than value from direct comparison, appraiser may judge proposed project to be infeasible
- Method involves considerable speculation & should be used cautiously

BUSI 330
Review Notes

Chapter 17: The Cost Approach

High level overview:

- **Theoretical breakdown of the property into land and building components.**
  - **Theoretical because rights are sold and not buildings / land.**
- **External obsolescence's are considered under this approach as land is separated from buildings.**
- **Cost of subject improvements are estimated by comparison of the construction costs to substitute properties with the same utility.**
- **Development cost is adjusted for market extracted losses caused by age, condition, utility or locational problems.**
- **Land value based on comparable land sales is then added**

When applying the cost approach, an appraiser must distinguish between 2 cost bases:
***One of these must be used consistently throughout the analysis**

1) **Reproduction cost – exact replica of the property**
2) **Replacement cost – substitute property of similar size and use**

Estimated cost to construct the existing structure and site improvements (including direct / indirect costs and entrepreneurial profit) using one of the following:

1) **Comparative-unit method**
2) **Unit-in-place method**
3) **Quantity survey method**

The depreciation to be deducted from the cost of the new structure is calculated using one of the following methods:

1) **Market extraction**
2) **Economic age-life**
3) **Breakdown**

When the value of the land (Found through comparable land sales) is added to the cost of the improvements less depreciation, the result is the value of the fee simple interest in real estate. This can be further adjusted to reflect the value of the property interest being appraised.

Figure 17.1 below provides an outline of the cost approach.

Figure 17.1 Cost Approach Overview

Relation to appraisal principles:

- **Substitution**
  - **Market value given by the cost approach provides a measure against which prices for similar improved properties may be judged**
- **Supply and Demand**
  - **Incentives for developers to build is directly tied to supply and demand**
- **Contribution**
  - **The various methods of estimating building costs are based on the contributions of the various components of a property**
  - **The estimation of depreciation can be seen as an application of contribution as the amount it detracts in its absence**
- **Externalities**
  - **Can be temporary and may work in positive and negative directions over the life of the improvement**
  - **Loss of building value due to external causes is attributed to external obsolescence**
- **Highest and Best Use**
  - **A parcel of land may have one highest and best use as vacant**
  - **If improvements exist a different highest and best use may exist given the existing combination of site and improvement**
  - **Existing improvements are rarely the ideal improvement, unless they are new construction**
- **Stabilization**
  - **For properties that are leased, the cost approach assumes stabilized occupancy and income**

Applicability

- **Particularly important when a lack of market activity limits the usefulness of direct comparison approach**
- **Most applicable when improvements are new or relatively new**
- **Effective when land value is well supported**
- **Frequently applied to proposed construction, special-purpose or specialty properties or other properties that are not frequently exchanged in the market**
- **Especially useful when building additions or renovations are being considered**
- **Useful for insurance purposes**
- **For accounting purposes, can be used to calculate income taxes on depreciated value**
- **An essential component of feasibility studies**

Limitations

- **If the cost approach yields a higher value than the direct comparison or income approaches, it may be an indication that the development is not economically feasible**
- **Not good for older improvements as the level of depreciation is harder to measure**

Reproduction Cost vs. Replacement Cost

Reproduction Cost

- **Cost to construct an <u>exact</u> duplicate or replica of the building being appraised at the time of appraisal**

· Uses the same materials, construction standards, design, layout, and quality of workmanship while embodying all of the deficiencies, super adequacies, and obsolescence of the subject

Replacement Cost

· Cost to construct a substitute for the building being appraised

· Uses contemporary materials, standards, design and layout and some existing obsolescence may be cured

The decision to use reproduction cost or replacement cost is often dictated by the age of the structure, its uniqueness and its intended use. Replacement structures usually cost less than identical structures because they are constructed with materials and techniques that are more readily available and less expensive in the current market.

Cost Estimates

Direct Costs (Hard Costs)	Indirect Costs (Soft Costs)
· Materials, products and equipment · Labour and permits · Security · Material storage · Utility costs · Contractors profit and overhead · Performance bonds	· Architectural and engineering fees · Appraisal, consulting, accounting and legal fees · Financing costs · Taxes · Marketing, sales commissions, administrative expenses

Items included are assumed to be in a typical balanced market. The competitive situation in the local market can have pronounced effects on cost estimates.

Entrepreneurial Profit and Incentive

· Entrepreneurial incentive refers to the amount an entrepreneur expects or wants to receive as compensation for assuming the risks associated with the development of a project

· Entrepreneurial profit refers to the difference between the total cost of development and the market value of a property after completion

Depreciation

- **The difference between the market value of an improvement and its reproduction or replacement cost at the time of appraisal**
- **There are 3 kinds of depreciation which can subtract from the value**
    - **Physical deterioration**
        - **wear and tear from regular use**
    - **Functional obsolescence**
        - **Flaw in the structure, materials, or design that diminishes the function, utility and value of the improvement**
    - **External obsolescence**
        - **Temporary or permanent impairment of the utility or saleability of an improvement due to negative influences outside the property**
        - **Can result from adverse market conditions**
        - **Because real estate is fixed it is subject to external influences that cannot be controlled**

CHAPTER 19: DEPRECIATION

Goals of depreciation: ID all forms of depreciation recognized by market
Treat all forms of depreciation
Charge only once for each form of depreciation (Do not double count)

3 Principle methods for estimating depreciation

- **Market Extraction Method**
- **Economic Age-Life Method**
- **Breakdown Method**

Note that these methods may be used separately, or in combination

Market Extraction and Economic Age Life Method

- **Are most commonly used for Total Depreciation**
- **Are applied to the Whole property**
- **+ are easy to understand and use**
- **Assume lump sum depreciation from ALL causes can be expressed in overall estimate**
- **Don't always distinguish between short-lived and long-lived items**
- **Rely on appraisers forecasts of effective age and remaining economic life**
- **Typically reflect a straight line pattern of depreciation**

Market extraction is better than Age-Life to show changes in rates of Depreciation over time

Breakdown Method

- **More comprehensive**
- **Identifies specific elements and treats them separately**
- **Enumerates components: physical deterioration (deferred maintenance, short-lived, long lived), functional obsolescence and external obsolescence**

*****DO NOT double charge for depreciation**

*****Analysis must be consistent using reproduction OR replacement costs**

- **Replacement costs will eliminate the need to consider some forms of obsolescence**

Short-lived item: A building component with an expected remaining economic life shorter than the remaining economic life of the entire structure. Eg water heater

Long-lived item: A building component with an expected remaining economic life the same as the remaining economic life of the entire structure Eg. framing

Curable: An item (physical deterioration or functional obsolescence) where the cost to cure is equal to or less than the anticipated increase in the value of the property

Incurable: Economically not feasible to replace/reproduce an item that has physical deterioration or functional obsolescence. Cost to cure is more than the anticipated increase in value of the property

Actual Age=Historical Age=Chronological Age: number of years that have elapsed since building construction was completed

Effective Age: age indicated by condition and utility of a structure

- **§ Based on appraiser's judgement and interpretation of market perceptions**
- **§ Reflects each building's maintenance standards**
- **§ Consider the condition and functional utility of an improvement, AND market AND locational factors—to determine the improvement's effective age**

Economic Life: usually shorter than physical life expectancy

- **§ Begins when the improvement is built**
- **§ Ends when the improvement no longer contributes value for it's intended use AND/OR is no longer the HABU of the land**

At the end of the economic life of a building:

- **§ Reno, or convert to new use**
- **§ Rehab/ Remodel**
- **§ Demo and replace with suitable new structure**

Useful Life: the period of time where structure OR component of a property can reasonably be expected to perform its designed function

- **§ Acknowledges that some items (concrete) may last hundreds of years, but economic influences on the structure will change functional use**
- **§ Useful life of short lived components (HVAC, roof, decorating, floor finishes) will be shorter than the the life expectancy of the entire building**
- **§ Useful life of long lived components have a life expectancy longer than the building's economic life expectancy**
- **§ Important in the breakdown method**

Economic Life is shaped by:

- **§ Rate at which physical components wear out (quality of construction & maintenance)**
- **§ Functional considerations: rate of change in market values, construction technology**
- **§ Note: an improvement can be functionally obsolete regardless of age/condition**
- **§ External influences (short and long term): neighbourhood's life cycle, financing availability, supply & demand**

Changes in market preferences and locational attributes not typically predictable

To calculate the Total Economic Life, you can use the reciprocal of the average annual depreciation rate

§ Eg if recent sales show @% average annual depreciation rate, then total economic life expectancy at the time of sale is 100% / 2% is 50 years

Renovations can "reset the clock"

§ Many historic properties have an economic life greater than the physical life because of ongoing restorations

Remaining Economic Life: estimated period over which existing improvements are expected to contribute to property value

§ Used in Economic Age Life Method

§ Always less than total economic life

§ Calculate: Remaining Ec Life = Total Economic Life – Effective Age of Improvement

§ Eg 50 years – 8 year old building = 42 years

Remaining Useful Life: Estimated period from the actual age of a component to the end of its total useful life expectancy

§ Remaining useful life of a long-lived component is Greater than the remaining economic life

Economic Life and Useful life estimates apply to a specific point in time

As a building ages, average annual depreciation rate actually decreases, then stabilizes at salvage value (=land value)

Accelerated land values can cause faster building depreciation

MARKET EXTRACTION METHOD

- Uses direct comparisons with market sales to extract depreciation
- Easy to understand & explain
- BUT must have sufficient data AND the quality of the data must allow for meaningful analysis (comparables need to have similar physical, functional and external characteristics)
- Can be an over-simplification of depreciation because all of the elements are considered in one calculation (lump sum)
- Must be able to develop accurate site value (land)
- Must have a defensible estimate for replacement costs
- Difficult if comparables differ in design, quality, or construction
- Difficult to apply if the depreciation is due to something other than age
- Locational differences are assumed to be removed by subtracting land value
- + truly market based, so use or consider using if appropriately supported

STEPS OF MARKET EXTRACTION

1. Find properties with similar age and utility
    - Ideally in subject's market area, but can be similar market

- Ideally current sales, but not essential

2. Make adjustments to comparables for property rights, financing, conditions of sale
   - NO market conditions' adjustment
   - No adjustments for physical, functional or external impairments
3. Subtract land value from sale price to get contributory value of improvements (building)
4. Estimate cost of improvements for each comparable at time of sale
   - Use reproduction OR replacement
   - Typically replacement
   - Should include all improvements (eg house AND garage)
5. Calculate $Depreciation on Date of Sale = Current construction cost – value of improvements (step 4 – step 3)
   - This value includes all forms of depreciation
6. Convert to percentage, each comparable's depreciation:
   - $ Depreciation from Step 5 / $construction cost Step 4 X 100%
   - IF sale dates are comparable to subject property, then reconcile % rates AND apply to subject's cost = Subject's total Depreciation
7. If ages of comparables are different from subject's age: develop an annual depreciation rate. This step will support an estimate of the total economic life expectancy of subject
   - Average Annual Depreciation Rate = Total Depreciation percentage / actual age of property
   - Note: Actual age is preferred to effective age, but must use the same to all sales comparables

Total Economic Life Expectancy (years) = 100% / Average Annual Depreciation rate

ECONOMIC AGE-LIFE METHOD

Depreciation = Effective Age / Total Economic Life X Total Cost

- Not always as accurate
- Simplest method to estimate depreciation
- Assumes straight line depreciation pattern
- Does not divide depreciation into various categories (physical, functional, external)
- Difficult to justify if other properties in market area have different types and amounts of depreciation
- Does not recognize difference between short-lived and long-lived items of physical deterioration Eg overall structure 20% depreciated, roof could be 90% depreciated

STEPS OF ECONOMIC AGE-LIFE METHOD

1. **Research anticipated total economic life of similar structures. Estimate effective age of subject**
    - **Can use data from market extraction method**
2. **Divide: Effective Age / Total Economic Life**
3. **Multiply ratio from step 2 to Subject's Total Cost**
4. **Then ADD back land value to get indicated value by cost approach**

MODIFIED ECONOMIC AGE-LIFE METHOD

- **When the appraiser knows the cost to cure the curable items (physical & functional)**
- **Appraiser deducts the cost of the curable items from the cost of improvements BEFORE applying the age life ratio**
- **This mirrors what typical purchasers consider**
- **Example: property is 20 years old. Total cost is $892,000. Interior reno's to cost $82,500. Other properties AFTER reno have total life expectancy of 50 years. Local investors feel the effective age will be 25% lower than the actual age AFTER the interior has been renovated; therefore subject's effective age is 15 AFTER the reno.**
- *****Avoid double counting the depreciation*****

Total Cost	**$892,000**
Less Reno Cost	**$ 82,500**
	$809,500
Ec Age Life Ratio (15/50=30%)	**$242850**
Depreciated Cost	**$566,650**
Plus assumed Land Value	**$100,000**
Indicated Value by cost approach	**$666,650**

ANOTHER VARIATION OF ECONOMIC AGE-LIFE METHOD

- **To be used if external obsolescence affects the subject property**
- **Appraiser's first choice should be to use comparables with same external obsolescence**
- **IF no comparables affected by the external obsolescence**
    - **Estimate the total depreciation without the obsolescence**
    - **Estimate the external obsolescence using the breakdown method**
    - **Add the above 2 numbers together for the total depreciation**
- **Example: property is 10 year old building. Cost is $696,000. Land Value is $255,000. Economic Life expectancy 1 year ago was 50 years. This year, there is oversupply: a glut of competitive properties causing a 10% reduction in rents and a resulting 10% decrease in building value.**
    - **Depreciation is 10/50 = 20% X $696,000 = $139,200**

- This is depreciation due to all causes except the external obsolescence
- Then 10% decrease in building value due to oversupply
- 10% X $696,000 = $69,600
- Total depreciation is $139,200 + $69,600 = $208,800

· Note: the over supply problem will change, may even disappear

· Note: in this example the land value has not been affected (yet?) by the oversupply

· Note: modified economic age life techniques work best with relatively few adjustments. If more than 1 atypical element, USE the Breakdown Method

BREAKDOWN METHOD

§ Most comprehensive and detailed

§ Segregates total depreciation into individual component parts

A. Physical Deterioration
B. Functional Obsolescence
C. External Obsolescence

§ Use if the appraiser cannot use the market extraction or age-life methods

§ Use if the elements of depreciation are not found in the comparables

§ Use if a closer analysis of the elements of depreciation is required or desired

§ IF the sum of all the items of Physical Deterioration in the breakdown method = total depreciation from market extraction OR economic age-life methods, THEN no functional or external obsolescence is present

§ IF the sum of all the items of Physical Deterioration AND functional obsolescence in the breakdown method = total depreciation from the market extraction or age-life methods THEN no external obsolescence is present

§ IF the sum of all items of depreciation estimated by the breakdown method is VERY DIFFERENT from the total depreciation from market extraction or age life methods THEN review ALL methods

- Possible incorrect estimates
- Possibile dissimiliarities of comparables
- Possible double-counting of some element of depreciation

§ Note: unless there are no short lived items, it is mathematically impossible for the useful life of long lived components to be equal to the economic life of the property as a whole

§ Note Figure 19.3 on page 19.16 of the Third Edition of The Appraisal textbook covers all the components of depreciation that can be worked from top to bottom OR bottom to top. Not reproduced here, but is invaluable

1. COMPONENTS OF PHYSICAL DETERIORATION

- Ø Items of deferred maintenance (curable)
- Ø Short lived Items (incurable)
- Ø Long lived items (incurable)

1. DEFERRED MAINTENANCE = CURABLE PHYSICAL DETERIORATION

- Items in need of immediate repair on the effective date of the appraisal
- Eg: broken windows, carpet needing replacement, leaking roof, inoperable HVAC, unusable bathroom
- There is 100% deterioration of deferred maintenance items
- Measured as the cost to cure or restore to reasonably new
- Cost to cure often MORE THAN cost to install new
- These items require Lump sum adjustments in the direct comparison and income approaches BECAUSE specific problems/items to the SUBJECT property would not be reflected in the comparables

Ø Tests of Curability

- o Money spent to cure the item increases the value of the property MORE than the expense = CURABLE
- o Money spent to cure the item allows other existing items to maintain their value

2. SHORT LIVED ITEMS, INCURABLE PHYSICAL DETERIORATION

- Items not needing replacement today, but probably have to replace in the foreseeable future
- Eg: roof covering, interior flooring, water heater
- Items are not YET 100% deteriorated but ARE substantially depreciated compared to the overall structure
- NEED a separate age-life ratio for each item
- Eg 20 year old boiler / Average total useful life of boiler as 25 years for 80% depreciation of the boiler

If replacement cost of the boiler is $30,000 (X 80%)
Then Deterioration is $24,000

- **NOT a short lived item IF the item's useful remaining life is greater than or equal to the remaining economic life of the overall property**
- **The age of the short lived item is usually the actual age, but can be the effective age**
- **The appraiser arrives at the useful life from: warranties, talking to builders or property managers, historical data, cost surveys, etc..**

Ø PROPERTY CONDITION SURVEY

- **Prepared by an engineer usually**
- **Identifies all the short lived and long lived items**
- **Calculates the remaining useful life**
- **Uses replacement cost estimates**
- **Usually provides a 10-20 year schedule that shows when replacements will be required**

3. LONG LIVED ITEMS=INCURABLE PHYSICAL DETERIORATION

- **All items not treated as deferred maintenance or short lived items**
- **Assumes long term items have the same age & life expectancy, therefore all are treated together**
- **Eg: framing, exterior walls, roof structure, underground piping, foundation, insulation**
- **Long lived items = Cost of building – short lived items – deferred maint**
- **Long lived items are NOT normally replaced (unless eg cracked foundation and then the cracked foundation would become an element of deferred maintenance**

- **Example to calculate replacement cost attributed to long lived items:**
  - **Industrial building. Total cost $700,000. 35 years old. Total useful life expectancy 100 years. Needs washroom replacement, cost $10,000 (deferred maintenance, cost to cure). Short lived items include: boiler to replace $40,000, roof covering to replace $60,000, floor finishing to replace $20,000. Age-life ratio is 35%.**
  - **Total Cost $700,000 – ($10,000 + $40,000 + $60,000 + $20,000)**
  - **Remaining replacement cost due to long lived items is $700,000 - $130,000 = $570,000 X 35% = $199,500**

- **MUST calculate the COST of the short lived items & deferred maintenance items FIRST, THEN use the age-life ratio to get the deterioration**
- **Note: short lived items typically each have a different age and a different total useful life**
- **Note: the total useful life expectancy of long lived items is longer than the economic life of the building overall, eg concrete may last indefinitely**

2. FUNCTIONAL OBSOLESCENCE

- **Caused by flaws in the structure, materials, or design when compared to HABU and most cost-effective design requirements**
- **Defects WITHIN the property**
- **Caused by deficiency or superadequacy**
- **Curable and incurable**
- **Note: sometimes markets will change again, and eliminate a functional obsolescence**
- **ALL forms of functional obsolescence present in the subject ARE included in reproduction cost**
- **Note: Replacement structures are built to contemporary standards; therefore no costs for superadequacies**

5 TYPES OF FUNCTIONAL OBSOLESCENCE

Ø Curable deficiency requiring Addition

- **Subject property lacks something that comparables have**
- **Excess cost to cure after property is built is the appropriate measure**

Ø Curable deficiency requiring Substitution or Modernization

- **Subject property has something present that is substandard**
- **Measure is the excess cost to cure AND the depreciated cost of the existing item**

Ø Curable Superadequacy

- **Subject property has something present that exceeds market requirements**
- **Superadequacy may have higher operating costs to consider (eg pool)**
- **Curable if it can be removed**
- **Also include salvage value**

- Superadequacies are NOT replicated in a replacement cost estimate

Ø Incurable deficiency
- Eg: unusually low ceilings that it is not economically feasible to correct

Ø Incurable Superadequacy
- Cannot be removed
- Property must suffer the loss or added costs of ownership

ANALYZING AND/OR PROBLEM SOLVING FOR FUNCTIONAL OBSOLESCENCE

Ø Identify the functional problem using info from HABU analysis

Ø Determine which building components are causing the problem

Ø Identify possible corrective measures AND costs to cure

Ø If Multiple cost-to-cure scenarios, select the most appropriate or the most cost-effective

Ø Cost to Cure = Cost to tearout + cost of replacement component + other costs (labour to replace is usually more than labour to install if new) – salvage value Note: if value added=cost to cure, may still desire to cure the obsolescence to remain competitive in the market

Ø Quantify the loss caused by the functional problem eg loss of income eg increased expenses eg combo of both less income + more expenses

Ø OR Quantify the loss by paired sales analysis

Ø Determine if the item is curable/incurable

Ø Apply the Functional Obsolescence Procedure

Ø Remember, items identified as incurable at one point, can become curable over time, and vice versa

See Figure 19.7 Procedure for Estimating all forms of Functional Obsolescence

1. Cost of existing item
2. Less depreciation previously charged (esp superadequacy). This is usually physical deterioration
3. Plus cost to cure (all! See previous page)
4. OR Value of the loss
5. Less cost to install new
6. Equals depreciation for functional obsolescence

Ø This procedure ensures no double depreciation

Ø Reminder: all forms of functional obsolescence present in the subject ARE included in reproduction cost

Ø Reminder: Replacement structure is built to contemporary standards so no cost for superadequacies

- **Eg. Office Building without A/C in a market where A/C is standard (curable functional obsolescence by deficiency requiring addition)**

Cost of existing		$ 0.00
Less Depreciation		0.00
Cost to cure now		$ 12,000.00
Cost if installed new		$ 10,000.00
Depreciation for functional obs	$ 2,000.00	

- **Eg. Incurable office building without A/C**

NOW the cost to cure is $20,000 but the value added is only $14,000 (this number comes from the income attributable to the deficiency)

Cost of existing		$ 0.00
Less Depreciation		$ 0.00
Value of the Loss		$ 14,000.00
Cost if installed new		$ 10,000.00
Depreciation for functional obs	$ 4,000.00	

- **Eg. Curable Functional obsolescence by deficiency requiring substitution**

Office building has A/C but it is below market standard

Reproduction cost of existing	$ 8,000.00	
Less 25% depreciation previously charged	$ 2,000.00	
Cost to cure = Cost to remove $4500 + Cost of replacement $12, 000 – Cost to salvage $3000		$13,500.00
Less Cost if installed new	$10,000.00	
Depreciation for functional obs	$ 9,500.00	

Note: extra income gained of $14,000 still more than $13,500 cost to cure

- **Eg. Curable functional obsolescence cause by superadequacy**

Warehouse with HVAC with excess cooling to store perishable goods

Reproduction cost existing	$ 40,000.00	
Less 30% Depreciation previously charged	$ 12,000.00	
Cost to cure = cost to remove $5000 + install typical HVAC $22,000 – salvage value $8000 =		$ 19, 000.00

Note: cost savings @ $200/month, cap rate 12% = $20,000 which is greater than $19,000, so curable

Cost if installed new		$ 16,000.00
Depreciation from functional obs	$ 31,000.00	

Same example using replacement cost

Cost existing		$ 0.00
Cost depreciated		$ 0.00
Cost to cure		$ 19,000.00

This is the cost to remove the superadequacy, less salvage plus the cost to install the appropriate item

Cost if installed new	**$ 0.00**
Depreciation for functional obs	**$ 19,000.00**

- **Eg. Incurable functional obsolescence caused by superadequacy**

24' ceilings where norm is 18'. Cost is $200,000 to build. Cap rate 12.5%. Expenses are $5000 more per year to heat. 10% physical deterioration

REPLACEMENT cost existing	**$ 0.00**
Depreciation of existing	**$ 0.00**
Value loss	**$ 40,000.00**

(Extra expense of $5000 / 12.5% cap rate)

Cost if installed new	**$ 0.00**
Depreciation from functional Obs	**$ 40,000.00**

OR

Reproduction cost of existing	**$200,000.00**
Depreciation 10%	**$ 20,000.00**
Value loss ($5000 / 12.5%)	**$ 40,000.00**
Less cost if installed new	**$ 0.00**

(It's superadequate, you're not putting it back in new)

Depreciation from functional Obs	**$220,000.00**

C) EXTERNAL OBSOLESCENCE

- **Loss in value caused by factors OUTSIDE the property**
- **Caused by economic or location factors**
- **Temp (eg oversupply) or permanent (proximity to a natural disaster)**
- **NOT usually considered curable/incurable by owner, landlord OR tenant**
- **Frequently will affect both land and buildings**
- **May affect an entire market or just 1 property (zoning, land use controls)**
- **Need to separate the effects on the land versus the effects on improvements**

WAYS TO MEASURE EXTERNAL OBSOLESCENCE

1. **External Obsolescence = Depreciation from all sources (market extraction method) – Physical deterioration (curable + incurable) – Functional obsolescence (curable + incurable)**
2. **Paired Data Analysis**
   - **Try to get pairs overall AND pairs for land only**
   - **Then external obsolescence of improvements = external obs for subject overall (land + buildings) – external obsolescence for Land only**
3. **Capitalization of Income (Rent) Loss**

- **Analyze the market to quantify income loss**
- **Capitalize the income loss in $ = Amount of total income lost in $ X Cap rate % X 100**
- **Could also use GIM (especially if permanent)**
- **Can also use discounted cash flow analysis (not permanent)**

Chapter 20 - Income Approach

INTRODUCTION

Value is based on the earning potential of the property using its net operating income and a market capitalization rate.
Higher the earnings – higher the value – provided risk is constant

RELATION TO APPRAISAL PRINCIPLES
Anticipation and Change
Fundamental to the income approach
All income approaches attempt to consider anticipation. Anticipation is the forecasting of income and expense levels to estimate present value.
Approach requires how change affects the value of income producing property
A change may reflect future changes to the quality and quantity of income.
Change will affect return required by an investor and the way the investor values a property.

Change will also affect supply and demand as society's attitudes change for the type of space required.
Supply and Demand is related to competition or lack of it and determines present rental and vacancy rates and future values.
Low Supply/High Demand = Increase in rent High supply/low demand = Decrease in rent

APPLICABILITY AND LIMITATIONS

Any property that generates income can be valued using the income approach
Income Approach is usually given the most consideration for income producing properties.

Definitions
Leases -A lease is a written document listing the rights of the various parties to use and occupy space. It states how the rent is to be determined and the expenses allocation between landlord (lessor) and tenant (lessee).

Types of Leases
Flat Rental Lease - rent is level throughout the term of the lease, used in net rental situations where the tenant is responsible for all their expenses.

Gross lease - lessor pays all the expenses, tenant only the rent.

Modified gross lease - expenses shared on some basis between the parties.

Single net lease - tenant pays utilities, taxes or insurance; lessor pays structural repairs and property maintenance and taxes or insurance.

Double net lease - tenant pays utilities, taxes, insurance and maintenance; lessor responsible for structural repairs and maintenance.

Triple net - tenant pays for everything except for major structural repairs which is the responsibility of the lessor.

Percentage Lease – some or all of the rent is based on a specified percentage of the volume of business, productivity or use achieved by the tenant.
Terms can be monthly, short term (1-5 years), or long term (over 5 years) and often have renewal clauses indicating renewal terms and conditions.

NOTE: Always read the leases because terms are specific to each situation and may not conform to the above definitions.

Rent
Market Rent - sometimes called economic rent, rent that could be commanded in the present market if property was available based on current rents of similar type properties. Market data usually provides evidence of a range of market rents.

Contract Rent – the actual rent specified in the lease document, may be higher or lower than market rent, compare properties with similar expense apportionments between the parties, lease terms and level of finished space.

Overage Rent – percentage rent paid over and above the guaranteed minimum rent or base rent.
When estimating market rent, make sure as an appraiser that you know what is in the lease

FUTURE BENEFITS
Benefits of owning specific rights in income-producing real estate include the right to receive all cash flows to the real property over the term of ownership.
An appraiser should be familiar with the following methods to measure future benefits

Potential Gross Income (PGI) is the total potential income at full occupancy before operating expenses are deducted.

Effective Gross Income (EGI) is the anticipated income after allowing for vacancy and collection losses due to unoccupied space, turnovers and non-payment of rent.

Net Operating Income (NOI) is the anticipated net income after all operating expenses have been accounted for and deducted from the effective gross income; expenses are adjusted to reflect normal or typical expenditure for the year.

Equity Dividend is the net income remaining after debt service is paid.

Operating Expenses

Operating Expenses are periodic operating expenses necessary to maintain the real property and maintain the income flow.

There are three categories - fixed, variable and replacement allowances.

Fixed Expenses - fixed expenses are expenses that do not vary with occupancy and have to be paid even when property is vacant. Examples taxes and insurance. Amount is fairly constant from year to year.

Variable Expenses - variable expenses generally vary with the level of occupancy, similar property types reflect a reasonably consistent pattern in relation to its gross income.

Replacement allowances - replacement allowances are funds set aside to replace building components that wear out more rapidly than the building itself. (wear and tear items)

Rates of Return

Investors seek a total return greater then or equal to the amount invested
Investors expected return consists of two components
i) Return OF Capital – Full recovery of the amount invested
ii)Return ON investments – A reward for the assumption of risk

Overall Capitalization Rate: Overall capitalization rate is a rate that reflects the relationship between a single year's net operating income and the total property value.

Overall Capitalization Rate = Net Operating Income/Sale Price

Market Value = Net Operating Income/Overall Capitalization Rate

Discount rates are defined as rates that convert any future cash flow into a present value figure. Rates found by examining the market sales of similar properties.

Estimating Rates is based on the following

Rate is influenced by the degree of perceived risk, market expectations about future inflation, market expectations about the future, other rates for alternative investments, and rates earned by comparable properties in the past, availability of debt financing and prevailing tax laws.

-Rates are prospective and not historical rates.
- Higher cap rates for less desirable properties, lower cap rates for better ones.

Risk
Higher risks require higher rewards and can lead to losses and not gains.
Each type of property has its own risk factor.

Inflation
Inflation is an increase in the volume of money and credit and a rise in the general level of prices and erosion of purchasing power.

Inflation can be expected or unexpected. Increase in inflation normally means an increase in rental prices
Appreciation in the real value results from an excess of demand over supply and an increase in property values.

PROCEDURE
Supports two basic methods - direct capitalization and yield capitalization.
Direct uses one year's income to establish a value.

Appraising a revenue producing property with the income approach – Direct Capitalization includes the following steps

Steps in the Income Approach
i)Research income and expenses for the subject and the comparables.

ii)Estimate the potential gross income (PGI).
iii)Estimate vacancy and collection allowances.
iv)Subtract vacancy and collection from the PGI to arrive at Effective Gross Income (EGI).
v)Estimate total operating expenses - fixed and variable.
vi)Subtract expenses from the EGI to arrive at the Net Operating Income (NOI).
vii)Apply the direct capitalization rate to the NOI to arrive at a value.

Direct Capitalization
Makes use of a single year's income and a market derived overall capitalization rate.

Learning Objectives from Chapter 20

1. **Capitalization is the conversation of income into a value. There are two types of Capitalization, Yield and Direct.**

2. **Anticipation is fundamental to income approach. All income methods attempt to consider future benefits and estimates of present value.**

~appraiser must carefully address and forecast future investors expectations of change in levels of income, the expenses to ensure income and a decrease or increase in property value
~higher risk of return higher expected income
Supply and Demand
High demand and low supply translates into being able to charge higher rent rates

3. **Various measures of future Benefits**
PGI, EGI, NOI,

Chapter 21: INCOME AND EXPENSE ANALYSIS

- **All capitalization techniques require estimate of future income and future expenses**
- **Historical income and current income are significant but future income is ultimate concern**
- **Income forecasting is very sensitive and minor differences in income multipliers will yield large differences in final estimate of value**
- **One year's income or series of years (depending on data available) can be based on:**
  - **Actual level of income at the time of appraisal**
  - **Forecast of income for first year of investment**
  - **Forecast of income over a specified projection period**
  - **Stabilized, average annual income over a specific projection period**
- **If market value is sought by appraiser then income forecast must represent market participants**
- **If investment value is sought by appraiser then base the income forecast on specific ownership or management requirement of the investor**

Characteristic Income and Expense of Principal Property Types: SEE PAGE 21.3

- **Industrial**
  - **Lease and income**
    Med to long term net or modified gross lease; contract rent
  - **Expenses**
    Tenant pays most expenses
    Improvement allowances allotted
    Sometimes prorated:
- **Property taxes**
- **Insurance**
- **Exterior maintenance**
  Landlord pays:
- **Management expenses**
- **Leasing commission**
- **Retail**
  - **Major tenants**
    Lease and income
- **Long term net lease; base and percentage (overage) rent**
  Expenses
- **Tenant pays utilities, interior maintenance, common area maintenance**
- **Tenants share in advertising and management expenses**
  - **Smaller tenants (local)**
    Lease and income
    Expenses
- **Multi-Family**
  - **Lease and income**
  - **Expenses**
- **Office Buildings**
  - **Lease and income**
  - **Expenses**

Estimating and Adjusting Market Rent

- **Starts with investigating subject propertys current rent levels**
  - **Understand current rent schedule**
  - **Analyze statements of rent, including rent paid under % leases or escalation clauses**
  - **Appraiser should explain all differences in rents within property**
  - **Appraiser reduces all rent to a unit basis for comparison**
- **Then analyze comparable propertys rent**
  - **Reduce rent data to a unit value for comparison**
  - **Must ensure comparison lease agreements represent freely negotiated arm's length transactions**
  - **Adjust comparables rents for differences the same as adjustments in direct comparison approach**

Recent leases are best

Lease renewals or extensions may be skewed as tenants willing to pay more to avoid relocating and vice versa (tenants pay lower as landlord avoids vacancy issues)

- **Elements of comparison in rental analysis**

Real property rights being leased and conditions of rental

- **Ensure arm's length transaction**

Market conditions

Location

Physical Characteristics

Division of expenses stipulated in lease and other lease terms

Use of property

Non-realty components

- **Brand experience (chain hotel vs local hotel)**
- **Amount of data required to support market rent conclusion depends on:**
  - **The complexity of the appraisal problem**
  - **The availability of directly comparable rentals**
  - **The extent of adjustments for differences in market rent derived from comparables when compared to subject**
  - **If appraiser uses proper judgment in making adjustments a clear pattern of market rent should emerge**

Interests

- **Market rent is used for Fee simple interests**
  - **Market rent also used to value:**

Proposed projects with no actual leases

Properties with unleased space

Owner-occupied properties

- **To value the leased fee estate:**
  - **Appraiser considers contact rent for leased space (may not equal market rent) and concludes market rent for any vacant and owner-occupied space**
- **To value a leased fee interest in recently complete, income producing property with no stabilized occupancy:**
  - **Appraiser forecasts appropriate vacancy and collection losses over appropriate absorption period or lease-up period**

- **If fee-simple interest in same type of property a deduction should be made for time and cost for property to achieve 100% use and occupancy**
- **Proposed properties usually require value estimates at different stages of development**
  As is
- **Typically the current value of the vacant land**
  When completed
  When stabilized

Income and Expense Data

- **Use comparable sales and rentals of competitive income-producing properties of the same type in the same market**
- **For investment properties appraiser reviews current and recent incomes, vacancy rates, collection losses, operating expenses**
- **Appraiser converts rent and expenses to appropriate unit of comparison for analysis**
- **Expenses can be shows as dollar figure or as a percentage of the effective gross income**
- **Must use unit of measure consistently**

Lease Data

- **Income and Expense forecast starts with lease analysis (step 1 of income approach)**
- **Appraiser should describe source of information and level of verification of the lease information in the scope of work section of appraisal report**
- **Typical lease data includes:**
- **Date of lease**
- **Reference information, if lease is recorded**
- **Legal description**
- **Name of lessor**
- **Name of lessee**
- **Lease term**
- **Occupancy date**
- **Commencement date for rent payment**
- **Rent amount**
  Including provisions
- **Rent concessions**
- **Landlord covenants (expenses responsible for)**
- **Tenant covenants (expenses responsible for)**
- **Right of assignment or right to sublet**
- **Options to renew**
- **Expense caps and expense caps, escalation rent, and expense recoveries**
- **Option to purchase and any accompanying conditions**
- **Escape clauses, cancellation clauses, kick out clauses**
- **Continued occupancy contingency**
- **Security deposits, including advance rent**
- **Casualty loss (whether lease continues after disaster and on what basis)**
- **Lessees improvements**
- **noncompete and exclusive clauses**
- **Condemnation**
- **Revaluation clauses**
- **Special provisions**

Developing Reconstructed Operating Statements

- **Estimates of income and expenses occur after researching and analyzing the following:**
  - **Income and expense history of the subject**
  - **Income and expense history of competitive properties**
  - **Recently signed leases, proposed leases, and asking rents for the subject and competitive properties**
  - **Actual vacancy levels for subject and competitive properties**
  - **Management expenses for the subject and competitive properties**
  - **Operating expense data and operating expenses for subject and competitive properties**
  - **Forecast changes in taxes, energy costs, other operating expenses**
- **Information presented in tabular form to assist reader of report**
- **Income and expense data usually reported as an annual or monthly dollar amount**
- **Income and expense data analyzed in $ per unit of rentable area**
- **Appraiser analyzes data of subject and comparables**
  - **Requires investigation for reason of any large differences seen in expenses**
- **Estimate of subject NOI is then concluded**
  - **If appraisal problem focuses on benefits of accruing equity investment an estimate of equity dividend is derived**

Potential Gross Income

- **Usually estimated on an annual basis**
- **PGI is comprised of:**
  - **Rent for all space in the property**
    Contract rent for current leases, market rent for vacant or owner-occupied space, percentage and overage rent for retail properties
  - **Rent from escalation clauses**
  - **Reimbursement income**
  - **All other forms of income to the real property**
    Sometimes including income from services supplied to tenants
- **Service derived income may not be attributable to the real property depending on its source and may not be included**

Vacancy and Collection Loss

- **Considers 2 components**
  - **Physical vacancy as a loss in income**
  - **Collection loss caused by concessions or defaults of tenants**
- **Rent collected each year is typically less then potential gross income**
- **Reduction in these losses are reflected as a % of potential gross income**
- **Vacancy can be measured by market data**
  - **Can also be measured by comparing PGI at market rates against subject properties actual collected income**

Effective Gross Income

- **Is the Potential Gross Income minus its vacancy and collection allowance**

Operating Expenses

- **Divided into 3 categories:**

- **Fixed expenses**
- **Variable expenses**

Management Charges

- **Can be contracted or provided by property owner**
- **Management charges may have 2 components**
- **Professional property management fees**

Expressed as % of EGI which conforms to local pattern

- **Fee for other expenses related to operations of the asses**

Items like in site supervision, maintenance, apartments for residence managers, clerical help, …

These fees may be accounted for elsewhere in expense statement

- **Need to verify**

May be included in recoverable operating expenses in certain markets for some property types

Leasing Commissions

- **Fees paid to an agent for leasing tenant space**
- **In direct capitalization method these may not be included depending on market norm**
- **In discounted cash flow analysis, these fees are included in time period they are expected to occur**
- **For new devs leasing commissions can be captured as capital expenditure instead of an ongoing periodic expense**
- **Blended rates can be applied (commission on new lease and existing lease)**

Utilities

- **Utilities usually projected based on analysis of past charges and current trends**
- **Subject utility requirements can be compared with known utility expenses per unit of measure for similar properties to estimate probable future utility expenses**
- **Expenses are based on hours of operation**
- **Utilities can be paid by property owner, by tenant, or both**

Gas

- **Can be paid by owner or tenant and is reflected in rent**

Water

- **Major consideration in industrial plants, multi-family projects when water and sewer service cost are tied together, laundries, restaurants, taverns, hotels**
- **Can be paid by owner or tenant and is reflected in rent**

Sewer

- **Major consideration in hotels, motels, recreational facilities, apartments, office buildings**
- **Municipalities with sewer systems, tenant or owner may pay separate charge**

Heat

- **Generally, a tenant expense in single-tenant properties, industrial or retail, apartment, offices with individual heating units**
- **A major expense item shown in operating statements for offices and central heated apartments**
- **Fuel for heat can be oil, gas, electric, public steam**
- **Certain accounting methods include heat in expense category**
- **Public steam and gas companies maintain records of fuel consumption and corresponding degree days from year to year which can be used to estimate heating expenses**

Air Conditioning

- **Can be charged under an expense category or combined under HVAC expense**
- **Expense varies based on climate and type of system installed**

- **Appraiser can project this expense based on typical unit charges for the community or the property type**
- **Most office buildings and apartment buildings have central HVAC systems and operating expenses are recorded in annual statements**
- **Most retail and some apartment buildings have individual ("package") heating and air-conditioning units operated by tenants**
- **Maintenance and repair usually fall on property owners**

General Payroll

- **General payroll includes:**
  - **Payment to all employees who's service are essential to property operation and management but whose salaries are not included in other specific expense categories**
  - **Custodial costs can be union wage or negotiated based on local custom**

If custodian or manager occupies an apartment as partial payment, apartment rental value is included as income and deducted as expense

  - **Unemployment and social security taxes for employees can be counted under general payroll expense or listed in separate expense**

Cleaning

- **Major consideration in office buildings**
  - **Usually includes 2 elements, cleaning cost and cleaning supplies cost**
- **Appraiser usually estimates cleaning cost in term of cost per square foot**
- **In hotels and motels, cleaning expenses attributed to rooms department and estimated as percentage of departments gross income**
- **Can be tenant or owner expense depending on property type and lease provisions**

Maintenance and Repair of Structure

- **Appraisers need to investigate provisions under a "triple net lease" where tenant would pay maintenance costs and owner pay repairs**
  - **Appraiser must determine additional operating expenses not covered by maintenance contract**
- **Alterations for major replacements, modernization, renovation may be considered capital expenditures not included under repair and maintenance**
- **This expense depends on extend of "replacement allowance" and age, condition, functional utility of property**
- **Some properties have historical expense records including typical repairs**
  - **IF yes, the reconstructed operating statement needs to show an adjustment to historical data, especially where separate replacement allowances are included**
- **Appraiser should apply same methodology to comparable sales info ensuring consistency when extracting ratios and rates to be applied to the subject property**

Decorating

- **Expense varies with local practice and supply/demand of space**
- **Expense may include cost of interior painting, wallpapering, wall cleaning**

Grounds and Parking Area Maintenance

- **Covers landscape and lawn maintenance, snow removal, drains, lights, marked car spaces, …**

Security

- **Maintenance and energy expenses may also be incurred in security provisions**

Supplies

- **Cost of cleaning materials, office supplies, miscellaneous items not covered elsewhere are included here**

Rubbished Removal and Extermination

- **These costs are included in expense statement**

Miscellaneous

- **Vary with property type**
- **IF this category represents a significant percentage of effective gross income, items should be explained or relocated to specific categories**

o **Replacement allowance (reserves)**

Expenses allocated for periodic replacement of building components that wear out more rapidly than the building and must be replaced during buildings economic life

- **If an item has useful life longer than building BUT a new installation or replacement will prologue buildings useful life than it is allowed**

Scope of items covered in replacement allowance is judged by appraiser based on market evidence

Can be represented as an expense or implicitly in the capitalization or discount rate

IF represented explicitly:

- **Replacement cost for each component of property is estimated as anticipated cost of its replacement prorated over its total useful life**

o **Can be shown as simple average or shown as actual cost and timing of replacement**

Examples of replacement allowance items:

- **Roof covering**
- **Carpeting**
- **Kitchen, bath, laundry equipment**
- **HVAC compressors, elevators, boilers**
- **Sidewalks, Driveways, Parking areas**
- **Exterior painting and weatherproofing windows**

Appraiser needs to ensure no double counting of expenses if historical operating statements include periodic replacement expenses under repair and maintenance and appraiser makes provisions for replacements in the reconstructed operating statement

If substantial interior improvements are done when switching tenant's expenses for these improvements can be included in reconstructed operating statement under replacement allowance in spate tenant improvements, or capital expenditures category, depending on local practice

Total expense estimate that exceeds actual expenditures from recent years is common for new buildings

Replacement costs can be represented as an increased annual maintenance cost or, on an accrual basis, in an annual replacement allowance

It is essential that income statements of comparable properties be consistent

- **If not, then adjustments are required**

Investor survey rates may or may not include deductions for replacement allowances

- **Appraiser should be cautious when using these for capitalization and discount rates**

Total Operating Expenses: Is the sum of fixed expenses, variable expenses, and replacement allowance cited in the operating expense estimate

Net Operating Income: After total operating expenses are subtracted from effective gross income is net operating income

Expense and Income Ratios

- **Operating Expense Ratio (OER): ratio of total operating expenses to effective gross income**

- **OER = 1 - NIR**
- **Net Income Ratio (NIR): ratio of net operating income to effective gross income**
- **NIR = 1 – OER**
- **Appraisers use North America wide studies of apartments and office buildings conducted by the Institute of Real Estate Management (IREM) and Building Owners and Managers Association (BOMA) as guides in assessing reasonableness of operating expense ratios**
- **Similar studies available for hotels, industrial properties, and mini-warehouses**
- **These studies can be used as market indicators**
- **Analysis of comparable property expense ratios still needed to verify applicability of published ratios to subject market**

Appraiser must ensure applicability of survey data to physical characteristics of subject property

Chapter 22 Direct Capitalization

Sections not to be read:

"Derivation of R_0 by Brand of Investment- Mortgage and Equity" to "Deriving a Building Capitalization Rate" and anything inclusive.

Direct Capitalization:

- Is a method used in the income approach to "Convert a single year's income expectancy into a value indication"
- Widely used when properties are consistently operating on a stabilize basis, and there is an abundant supply of comparable sales.
- Less useful when the properties are going through an initial lease up or expected to have varying income or expenses over time.
- Advantages
  - Simple and easy to use.
  - Expresses market thinking.
  - Provides Market evidence of value when a sufficient amount of sales are available.
- Application using one of the two methods:
  - Applying an overall capitalization rate to relate value to the entire property income
  - Using residential techniques that consider components of a property's income and then applying the market capitalization rates to each component

Derivation of Overall Capitalization Rates:

- Formula:
  - Value = Net Operating Income (NOI) / Overall Capitalization Rate (R_0)
  - OR
  - Value = Income Estimate X Appropriate Factor (Gross income Multipliers or Net Income Ratios)

Derivation of R_0 from Comparable Sales

- Preferred technique when sufficient comparable sales are available
- The comparable property's sale price, rent, and expenses must be available
- Market conditions of the comparables must be like the appraisal date conditions
- NOI calculation must be the same for the subject property and comparables
- The financing conditions of comparables must be similar to the subject property or adjustments need to be made.
- The overall risk level of comparables should be similar to the subject property
- When all requirements are met the following <u>FORMULA</u> can be used to calculate the Capitalization rate:
  - R_0 = Net Operating Income / Sale Price
- The most similar comparable properties capitalization rate should be chosen, and justification is required to derive a capitalization rate.

Derivation of R_0 from Gross Income Multipliers

- Sometimes an overall capitalization rate can not be derived because of the requirements for the comparable properties
- When capitalization rates are not available an effective gross income multiplier (EGIM) can be used in conjunction with a net income ratio (NIR)
- FORMULA for overall capitalization rate using NIR and EGIM:
    - R_0 = NIR / EGIM

Derivation of Gross Income Multipliers (GIM)

- GIM's are used to compare the income-producing characteristics of properties
- Potential or effective gross income may be converted into an opinion of value by applying a relevant GIM
- Comparable properties must have similar physical, locational, and investment characteristics
- Properties with similar or identical multipliers can have very different operating expenses and may not be comparable to the subject property.
- Timing of income must be comparable
    - If sales were analysed for next years sales, then the GIM can only be used for the next year of the subject property.
- Potential / Effective gross income multiplier FORMULA:
    - PGIM = Sale Price / Potential Gross Income
    - EGIM = Sale Price / Effective Gross Income

Chapter 25 Reconciling Value Indications

- More than one approach is applied to value
- Each approach provides a different indication of value
- If 2 or more approaches are used the appraiser must reconcile the value
- In the direct compensation approach each comparable produces an adjusted sale price this is an indication of value of the subject property.
- Multiple value indications is resolved with a single approach
- Resolving the differences among various value indications is RECONCILIATION.
- The final reconciliation process is the ultimate value conclusion
- The reconciliation analysis may indicate that more research is needed, it reveals any conflicts or unresolved issues

Final value opinion:

The range of values or single dollar figure derived from the reconciliation process.

Final reconciliation

· The appraiser reexamines the entire appraisal to confirm consistent application of the approaches applied.
· All mathematical calculations should be checked by someone other than the person who performed them originally
· Do the approaches and methods applied consider all the available data ?
· Does the appraisal provide the information required to solve the clients problem?

Reconciliation Criteria:

· Re-examining an appraisal helps ensure its accuracy, its consistency, and logic leading to value
· Appraisal judgment , careful , logical analysis of the procedure that leads to each value indication.
· Appropriateness, accuracy and quantity of evidence are used for a meaningful defensible final opinion of value.

Appropriateness:

· Intended use of the appraisal is usually directly related to property type.

Ø Community centre…..income approach
Ø Obsolete improvements ….. cost approach
Ø Owner- occupants…. Direct compensation approach

The final value opinion is based on the approach or approaches that are most applicable, the final value need not be identical to the value produced by the most applicable approach.

The final value may be closer to one value indication than to the other.

Accuracy:

· Measure of the accuracy of the data and the adjustments made to each comparable analyzed
· Reliability of the data supporting depreciation and cost estimates
· The number of comparable properties
· The number of adjustments
· Gross and net dollar amount of adjustments

Quantity of evidence:

· Even if the data analyzed is accurate, if the data is scarce the value conclusion may lack support.
· Eg: 3 comparable similar to subject … one comp have more info than the other 2 (least detail) because more info is available for the 1st there is greater confidence with the 1st comp.

Final opinion of value

Stated as:
Ø Single figure
Ø Range of values or
Ø In relation to a benchmark amount eg: not more than or not less than…

Traditionally reported as single value amount (point estimate)
The point estimate: a final value indication reported as a single dollar amount. Regarded as the most probable number not the only possible number and is often required for revenue and compensation purposes.
Range of value:
The range in which the final market value opinion of a property may fall, usually stated as a variable amount between a high and low value limit.

Probability range:
The confidence level associated with a specific value or set of value opinions.