MARKET ANALYSIS

- The identification and study of the market for a particular economic good or service; Markets are created at the intersection of market participants' needs and desires (demand for space) and characteristics and amenities of the built environment (supply of space)
- The intersection of supply and demand for space at any given time determines the strength of the market; Measures of strength of the market include rent levels, vacancy, absorption, and construction activity
- The primary purpose of market analysis for an investment property is to validate assumptions as to the property's short and long term revenue potential; Thus any factors which will affect a property's revenue stream should be analyzed
- At a minimum, the market analysis must inform the investor of the appropriate assumptions for current and projected rent, current and projected vacancy, absorption rate (if "new" vacant space), and to a lesser extent expense levels and projections
- The goal of market analysis is to minimize "market risk"

INPUTS TO MARKET ANALYSIS

- Vacancy rate – higher vacancy rate indicates less demand relative to supply and vice versa
- Rent or price level – trends in rents and prices indicate changes in the balance between supply and demand
- Quantity of new construction started – indicates new supply that will be coming into the market
- Quantity of new construction completed – indicates new supply that is just arriving into the market
- Absorption of new space – indicates the rate at which new supply is becoming occupied in the market

REAL ESTATE CYCLE

Phase II - Expansion

Hi rent growth
Tight market
New Construction

Rents rise toward new construction levels

Phase III - Hypersupply

Rent growth slows
Supply growth higher than demand growth

Feasible new construction

Equilibrium

New demand
Excess space absorbed
Low rental growth

Phase I - Recovery

Neg rental growth

Phase IV - Recession

Negative rent growth

Recovery—supply exceeds demand—the bottom of the cycle

- Oversupply from previous new construction or negative demand growth; Vacancy rates are at their highest, rents/prices are flat
- Vacancy rates begin to decrease, rents/prices stabilize and begin to increase
- Replacement costs exceed values/prices

Expansion—demand growth exceeds supply growth—peak

- Supply declines, rents increase, vacancy decreases
- Replacement costs equal values/prices justifying new construction
Hypersupply—supply growth exceeds demand growth
- Rents begin to flatten and decline; Vacancy begins to increase
- Values exceed replacement cost

Recession—negative demand growth
- Supply increases as a result of overbuilding and increased vacancy; Rents decline

Order of Analysis
- Real estate market analysis proceeds from the general to the specific, starting with national and international economic trends and working down through metropolitan and neighborhood trends to an analysis of a specific property
- Analyze national and international economic trends (inflation, interest rates, economic growth rates) that influence real estate investment conditions
- Consider regional and metropolitan economic, demographic, and political trends that are relevant to the investment opportunity;

Analyzing the Economy
- Population, employment, income, household formation, etc
- Need to assess current and future levels of economic activity
- Data must be current
- Data/methodology should be analyzed to determine appropriateness
- A projection is an extrapolation of a trend of past values for some variable through the present period into the future
- A forecast takes data from the past and extrapolates it through the present, but subjects the trend to an analysis that identifies how current factors and conditions are affecting the historic trend

The Local Economy
- May be defined by political boundaries for which data are available
- May be defined by geographic areas defined by the census; The general concept of a metropolitan area is that of a large population nucleus, together with adjacent communities having a high degree of social and economic integration with that core
  - Metropolitan statistical area (MSA)
  - Primary metropolitan statistical area (PMSA)
  - Consolidated metropolitan statistical area (CMSA)
  - Geographic statistical subdivisions

Circular flow of income model—economy is assumed to be a closed economy with no exchange of goods or dollar payments with the rest of the world; Three sectors—household, business and government

Government sector acts to redistribute income earned by other sectors and is therefore not considered

Household sector—all individuals and households that own the factors of production; Local residents who:
- Provide labor services to local industries
- Own land in the local economy
- Own all the capital goods and capital funds used locally
- Provide entrepreneurial talent to local firms
- Sell factors of production to the business sector
- Purchase goods and services from the business sector
- Can be described by key variables (segmentation):
  - Population size, number of families or households
  - Age composition
  - Income composition
  - Household/family size
  - Sex composition, marital status, educational level, etc

Business sector
- Uses productive resources
- Produces consumer and capital goods and services that are purchased by the businesses and individuals in the household sector
Can be described by identifying industrial classifications that exist in the local economy.

**Economic base**—the complex of activities that comprise the household and business sectors and the flows in the FOI model; Export base theory:

- Firms sell to both local and non-local consumers but non-local sales generate the economic growth.
  - Basic activities are those industrial and commercial firms that sell a large portion of their products to nonlocal consumers—the export industries, the basic sector of the local economy—town builder jobs.
  - Non-basic activities are those firms that sell goods and services primarily to local consumer—non-basic or service sector—town filler jobs.

**As exports grow, local economy grows**

- Basic industries need more employees to meet increased external demand.
- Non-basic industries need more employees to meet increased internal demand of new basic employees.
- Internal multiplier effect—a one unit change in basic employment causes a more than a one unit change in total employment.
- The increase in number of employed persons and resultant increase in local purchasing power leads to increase in demand for housing, retail and office space.
- Structural changes in basic industries should be monitored and analyzed.

**Location quotient = e / E**

- e = Ratio of local employment in an industry to total employment in the local economy
- E = Ratio of national employment in an industry to total employment in the national economy

If e / E > 1.0, the industry is considered basic.

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<tr>
<th>Code</th>
<th>NAICS Sectors</th>
<th>SIC Divisions</th>
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<tr>
<td>11</td>
<td>Agriculture, Forestry, Hunting, and Hunting</td>
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<td>71</td>
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<tr>
<td>91</td>
<td>Other Services (except Public Administration)</td>
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<td>92</td>
<td>Public Administration</td>
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<td>55</td>
<td>Management of Companies and Enterprises</td>
<td>(parts of all divisions)</td>
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**Competitive market area (CMA)**

Delineate specific geographic boundaries—trade area, sub-market, neighborhood, etc.

**Demand analysis**—analyze potential tenant demand in the CMA for the property type and project demand for the CMA.

**Determinants of demand**—population, employment, and income (effective demand).

**Population**

- Historical growth trends must be developed and synthesized with current developments and future projections must be made.
- Basic forces affecting population growth are natural birth rate, natural death rate, migration of population and household size.
- For residential markets, a household is the basic unit of demand; Changes in household sizes and formations must be analyzed.
• Population growth creates a need for new housing and services but it does not necessarily create demand

Employment
• Because it is the primary factor impacting all real estate markets, trends in the employment base of the market area must be analyzed, particularly if the market area is small or if the economic base is not diversified
• Generally, the larger and more diversified the market area, the less meaningful specific employment analysis becomes; Nevertheless, general employment trends in the local economy and changes in employment within the CMA must be analyzed

Income
• Proper utilization of income data seeks to distinguish between need and demand; ie, it seeks to determine effective demand for the real estate product
• Household income is a major factor in determining the housing choice of a household

Segmentation Analysis - In order to analyze the demand for a specific property or property type, it is helpful to subdivide consumers (those with effective demand) into smaller groups with similar characteristics;
  • Demographic characteristics
  • Economic characteristics
  • Psychographic characteristics

Demand factors—residential
• Net household formation
• Age composition of the household
• Household income
• Credit conditions
• Prices of substitute units
• Ownership costs
• Expectations about the future
• Seasonality

Supply-Demand Equilibrium

Supply Analysis
• Identification and analysis of competitive properties in the CMA;
• Disaggregation—the process of dividing a market into smaller more homogeneous sub-markets

Analyzing the Site - Competitive factors to consider
• Linkages—the relationships that exist between different land users; Three principal considerations in analyzing the quality of linkages
• Costs of friction (transfer costs)—travel costs that users of a site must incur to maintain the linkages identified; direct costs (price of a vehicle, fuel, etc) and non-money costs such as the value of time spent traveling and anxiety, aggravation, and frustration
• Amenity—the user's perception of well-being, the ease of carrying out intended on-site activities, and the user's pleasure and enjoyment while on the site
• Convenience—the need to minimize travel time, distance, and distress the user experiences to utilize the site

Locational

Regional linkages
• Proximity to Employment
• Route Environment(s)
• Regional access

Neighborhood Stages
• Development—building are newly constructed, public improvements are new, etc
• Decline—values begin to decline as properties age and no longer fulfill the needs of original buyers/tenants
- Transitional period—lower income groups begin to move in as values decline; Increase in absentee-owned properties
- Blight—abandonment occurs, social problems increase, property conditions decline
- Rehabilitation

Property

- Type/style
  - Age
  - Condition
  - Functional obsolescence - loss in value of a property resulting from changes in tastes, preferences, technical innovations, or market standards
  - Economic obsolescence - a loss of value as a result of impairment in utility and desirability caused by factors outside the property's boundaries

Amenities

- Parking
- Fitness/Pool
- Security
- etc

Unit

- Size
- Number of rooms
- Floor plan
- Features and amenities

Financial

- Rent/price levels and related costs
- HOA dues, special assessments, special financing, concessions,
- Vacancy, absorption rate

Pipeline Analysis - Estimate potential additions to the supply of competing properties in the CMA (pipeline analysis); Estimate the subject property's fair share of projected demand (projected CMA supply divided by projected CMA demand) example, multi family residential

- Land planned for residential use
- Land zoned/entitled for multi family residential
- Units under construction
- New units leasing up
- Existing units

Compare the subject property's characteristics with tenant needs and with the characteristics of present and projected competing properties to estimate probable changes in market share over the forecast period (capture rate)

- For existing properties the capture rate for projected demand must be analyzed
- If properties within the CMA are similar to the subject property, it is reasonable that the property will capture a fair share of projected demand
- If a property is inferior to others in the CMA, it may capture less than a fair share of projected demand which may indicate a need to improve the property
- If a property is superior to others in the CMA, it may capture more than a fair share of projected demand

Data collection

- Primary data are statistics specifically for the market analysis
- Secondary data are those previously gathered for some other purpose
- Typically, primary sources should be used only if secondary data are not available
- Secondary data are frequently available in raw form from agencies that generate it; Their data files can save many days of tedious work and save costly hours of field investigation

Descriptive research

- Much of the research data needed by real estate investment analysts is descriptive in nature.
- Examples include:
  - Describing the profile of a typical tenant
Estimating the proportion of people in a specific population who behave in a particular manner
- Estimating reactions to proposed alterations in rental terms, such as length of leases or the relative degree to which rent depends upon a flat fee versus a percentage lease clause
- Primary data may be gathered by communication or by observation, with choice usually dictated by the nature of the intelligence desired

**Communication involves questioning respondents;**
- Communication is a more versatile means of gathering data than is observation and is more amenable to the collection of a variety of factual data
- Communication should be the primary means of gathering data because it is usually faster and more cost effective than observation
- Data collected by communication are sometimes tainted by a lack of objectivity, accuracy and interviewee situational bias

**Observation means checking and recording relevant facts or behavior**
- Data collected by observation are more likely to be objective and factual
- Data that can be collected by either method are generally more reliable if secured by observation

**Geographic information systems**
- Geographical information systems (GIS) relate information to geographic locations; They involve a series of map overlays, so that different types of information can be spatially related either in isolation or in concert with related information