15 Real Estate Market Economics

The Market System
Real Estate Market Dynamics

Real estate is an economic product that is subject to economic laws and influences, much like all of the other goods and services in our economic system.

Real estate professionals do not have to be economists; in fact, they are better off leaving complex economic theories to those professing expertise in that often confusing field. However, brokers and agents do need a basic understanding of how our economy works, and particularly, how real estate as an economic product fits into the real estate marketplace.

Understanding the fundamentals of real estate economics enables one to:

- recognize the effect of current economic conditions in the real estate market on transactions, prices, and values
- apply economic principles to estimates of future conditions in the real estate market
- apply economic principles to specific geographical areas and property types in order to assess economic conditions for a particular property and site

These are abilities that will benefit the clients of any real estate professional.

THE MARKET SYSTEM

Supply and demand
Price and value
Productivity and costs
Market interaction
Market equilibrium

Supply and demand

The goal of an economic system is to produce and distribute a *supply* of goods and services to satisfy the *demand* of its constituents. Economic activity therefore centers on the production, distribution and sale of goods and services to meet consumer demand.

Supply is *the quantity of a product or service available for sale, lease, or trade at any given time*.

Demand is *the quantity of a product or service that is desired for purchase, lease, or trade at any given time*.

The interplay of supply and demand is what makes an economy work: consumers demand goods and services; suppliers and sellers produce and distribute the goods and services for a negotiated price.

Exhibit 15.1 Supply, Demand, Price

Price and value

The price mechanism. In addition to supply and demand, the other critical component of an economic system is the price mechanism, or simply, price. A **price** is the amount of money or other asset that a buyer has agreed to pay and a seller has agreed to accept to complete the exchange of a good or service. It is a quantification of the value of an item traded.

Price in this context means the final trading price; it is not the preliminary asking price of the seller nor the initial bidding price of the purchaser. Asking and bidding prices are pricing positions in a negotiation between the parties prior to the exchange. The true price of an item or service is the final number the parties agree to.

Value and value determinants. Price is not something of value in itself. It is only a number that *quantifies value*. The economic issue underlying the interplay of supply and demand is, how do trading parties arrive at the value of a good or service as indicated by the price?

Consider consumer demand for air conditioners. Why do air conditioners have value? How do they command the price they do?

The value of something is based on the answers to four questions:

- How much do I desire it?
- How useful is it?
- How scarce is it?
- Am I able to pay for it?

Desire. One determinant of value is how dear the item is to the purchaser. Returning to the air conditioner example, the question becomes "how much do I desire to be cool, dry, and comfortable?" To a person who lives in the tropics, it is safe to say that air conditioning is *more valuable* than a heating system. It is also safe to say the opposite is true for residents of northern Alaska.

Utility. The second determinant of value is the product's *ability to do the job*. Can the air conditioner satisfy my need to stay cool? How cool does it make my house? Does it even work properly? Of course, I won't pay as much if it is old or ineffectual.

Scarcity. The third critical element of value is a product's *availability in relation to demand*. The air conditioner is quite valuable if there are only five units in the entire city and everyone is hot. On the other hand, the value of an air conditioner goes down if there are ten thousand units for sale in a 500-person market.

Purchasing power. A fourth component of value is the *consumer's ability to pay* for the item. If one cannot afford to buy the air conditioner, the value of the air conditioner is diminished, since it is financially out of reach. If all air conditioners are too expensive, consumers are forced to consider alternatives such as ceiling fans.

In the marketplace, the relative presence or absence of the four elements of value is constantly changing due to innumerable factors. Since price is a reflection of the total of all value factors at any time, changes in the underlying factors of value trigger changes in price.

Productivity and costs

To produce a good or service, a supplier incurs **costs**, or those expenses necessary to generate and deliver the item to the market. The essential production costs are the costs of capital, materials, and supplies; labor; management; and overhead.

Costs play an important role in the dynamics of supply, demand, and value. Since a producer has limited resources, it is imperative to maximize the efficiency of the production process and minimize its costs. Moreover, since consumers will pay the lowest possible price for comparable goods and services, the producer must be price-competitive to stay in business. A competitor who can produce an item of similar quality for less will eventually force higher-priced items out of the market.

Cost and price. Consider a producer who is efficient and produces the product or service in demand at the lowest possible cost. Adding to the cost a required profit margin, the producer establishes a minimum price for the item. In this scenario, cost essentially equals price. To the efficient producer, costs and sufficient profit are paramount, since a lower price puts the producer out of business. At that point, the elements of value-- desire, utility, scarcity, and purchasing power-- do not matter: if the consumer wants the item at all, he or she must cover the producer's costs and profit.

In summary, supply, demand, and price interact continuously in a market. Underlying and influencing these forces are the dynamics of value and the costs of producing goods and services.

Market interaction

What is a market? A market is a place where supply and demand encounter one another: suppliers sell or trade their goods and services to demanders, who are consumers and buyers. It is a *transaction arena* where the price mechanism is constantly defining and quantifying the value produced by the relative elements of supply and demand.

Supply, demand and price interrelationships. In a market economy, the primary interactions between supply, demand and price are:

- if supply increases relative to demand, price decreases
- if supply decreases relative to demand, price increases
- if demand increases relative to supply, price increases
- if demand decreases relative to supply, price decreases

These relationships reflect simple common sense: if a valued product becomes increasingly scarce, its value and price go up as consumers compete for the limited supply. If there is an overabundance of a product, the price falls, as demand is largely met. On the other side, if demand for a product or service increases in relation to supply, prices will go up as consumers compete for the popular item. If demand diminishes, the price drops with it.

The inverse of these principles also applies. By tracking a price trend, one can draw conclusions about supply and demand trends:

- if price decreases, demand is declining in relation to supply
- if price increases, demand is increasing in relation to supply

To assess price movements, the supply and demand of a product or service must always be considered together. It is always possible for demand and supply to rise and fall together at the same rate, with no detectable price change resulting.

For example, if demand for bicycles jumps a million units, and manufacturers easily produce the necessary new supply, there may be no increase in price. The price may even go down as manufacturers obtain better prices on the larger quantities of raw materials they now use.

Market equilibrium

Another significant principle of supply/demand/price interaction is **market equilibrium**:

- a market tends toward a state of equilibrium in which supply equals demand, and price, cost, and value are identical

According to this principle, market demand moves to meet supply, and supply moves to meet demand. If there is an extreme shortage of an item for which there is normally a strong demand, suppliers will rush to increase production to close the gap. If inventories of an item are very high, suppliers will stop production until the oversupply has been depleted.

Similarly, if the price of an item far exceeds its cost, new suppliers will enter the market with lower prices. If the price of an item is far less than its perceived value, either consumers will bid up the price or the perceived value will decline.

For example, a new convenience store opens on the edge of a rapidly growing town. The owners know demand will increase, so they anticipate the demand with their increment of supply. Initially, the store creates excess supply, so business is slow. However, as people move in, demand increases, and the store begins to make substantial profits. After some time, other retailers hear that the store is profitable: demand now significantly exceeds supply, and the operator's costs are out of line with values and prices. A second retailer opens a store to equalize the imbalance. The new competitor, an addition of supply, now forces prices, costs, and profits into closer proximity.

The equilibrium time lag. In theory, markets strive for equilibrium, but in reality there is always a time lag between a recognized imbalance and the completion of the market adjustment. Since the underlying determinants of supply and demand (scarcity, desire, utility, purchasing power and costs) are constantly changing, a market is usually in some condition of imbalance.

REAL ESTATE MARKET DYNAMICS

Economic characteristics of real estate
Real estate supply and demand
Market influences on supply and demand

As an economic commodity, real estate is bought, sold, traded, and leased as a product within a real estate market.

Economic characteristics of real estate

Real estate, like other products and services, is:

- subject to the laws of supply and demand
- governed in the market by the price mechanism
- influenced by the producer's costs to bring the product to market
- influenced by the determinants of value: utility, scarcity, desire, and purchasing power

Distinguishing features. In comparison with other economic products and services, real estate has certain unique traits. These include:

- **inherent product value**

  Land is a scarce resource as well as a required factor of production. Like gold and silver, it has both inherent value and utility value.

- **unique appeal of product**

  Since no two parcels of real estate can be alike (each has a different location), every parcel of real property has its own appeal. Likewise, no two parcels of real estate can have exactly the same value, except by coincidence.

- **demand must come to the supply**

  Since real property cannot be moved, real property investors and users must come to the supply. This creates risk, because if demand drops, the supply cannot be transported to a higher demand market.

- **illiquid**

  Real estate is a relatively illiquid economic product, meaning it cannot always be readily sold for cash. Since it is a large, long-term investment that has no exact duplicate, buyers must go through a complex process to evaluate and purchase the right parcel of real estate.

- **slow to respond to changes**

  Real estate is relatively slow to respond to market imbalances. Because new construction is a large-scale, time-consuming process, the market is slow to respond to increases in demand. The market is similarly slow to respond to sharp declines in demand, since the product cannot be moved and sold elsewhere. Instead, owners must wait out slow periods and simply hope for the best.

- **decentralized, local market**

  A real property cannot be shipped to a large, central real estate marketplace. Real estate markets are thus local in nature and highly susceptible to swings in the local economy.

Real estate supply and demand

Supply. In real estate, supply is the *amount of property available* for sale or lease at any given time. Note that supply is generally not the number of properties available, except in the case of residential real estate. The units of supply used to quantify the amount of property available differ for different categories of property. These supply units, by property type, are:

- residential: dwelling units
- commercial and industrial: square feet
- agricultural: acreage

Factors influencing supply. In addition to the influences of demand and the underlying determinants of value, real estate supply responds to

- development costs, particularly labor
- availability of financing
- investment returns
- a community's master plan
- government police powers and regulation

Demand. Real estate demand is the amount of property buyers and tenants wish to acquire by purchase, lease or trade at any given time. Units of demand, by property classification, are:

- residential: households
- commercial and industrial: square feet
- agricultural: acreage

The unit of residential demand is the household, which is an individual or family who would occupy a dwelling unit. Residential demand can be further broken down into demand to lease versus buy, and demand for single family homes versus apartments.

Residential demand can be very difficult to quantify. One measure is the number of buyers employing agents to locate property. Another measure is the net population change in an area, plus families that attempted to move in but could not.

The unit of commercial (retail and office) and industrial real estate demand is the square foot, further broken down into demand for leased space versus purchased space. In most instances, the area demanded refers to the improved area rather than the total lot area.

Demand for office and industrial real estate is calculated by identifying employment growth or shrinkage in a market, then multiplying the employment change times the average area of floor space a typical employee uses. For example, consider an office property market where employment in the community increases by 500 employees. If each employee uses an average of 120 square feet, the increased demand for space is 60,000 square feet.

Factors affecting demand. The demand for particular types of real estate relates to the specific concerns of users. These concerns revolve around the components of value: desire, utility, scarcity, and purchasing power.

Residential users are concerned with:

- quality of life
- neighborhood quality
- convenience and access to services and other facilities
- dwelling amenities in relation to household size, lifestyle, and costs

Retail users are concerned with:

- sufficient trade area population and income
- the level of trade area competition
- sales volume per square foot of rented area
- consumer spending patterns
- growth patterns in the trade area

Office users are concerned with:

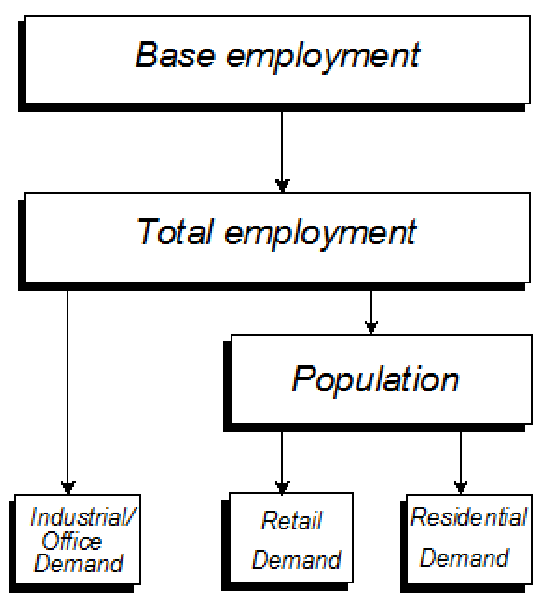
- costs of occupancy to the business
- efficiency of the building and the suite in accommodating the business's functions
- accessibility by employees and suppliers
- matching building quality to the image and function of the business

Industrial users are concerned with:

- functionality
- the availability and proximity of the labor pool
- compliance with environmental regulations
- permissible zoning
- health and safety of the workers
- access to suppliers and distribution channels

Base employment and total employment. The engine that drives demand for real estate of all types in a market is employment-- *base* employment and *total* employment.

Exhibit 15.2 Basis of Real Estate Demand



Base employment is the number of persons employed in the businesses that represent the economic foundation of the area. For example, the auto industry has traditionally been the primary base employer of the Detroit metropolitan area.

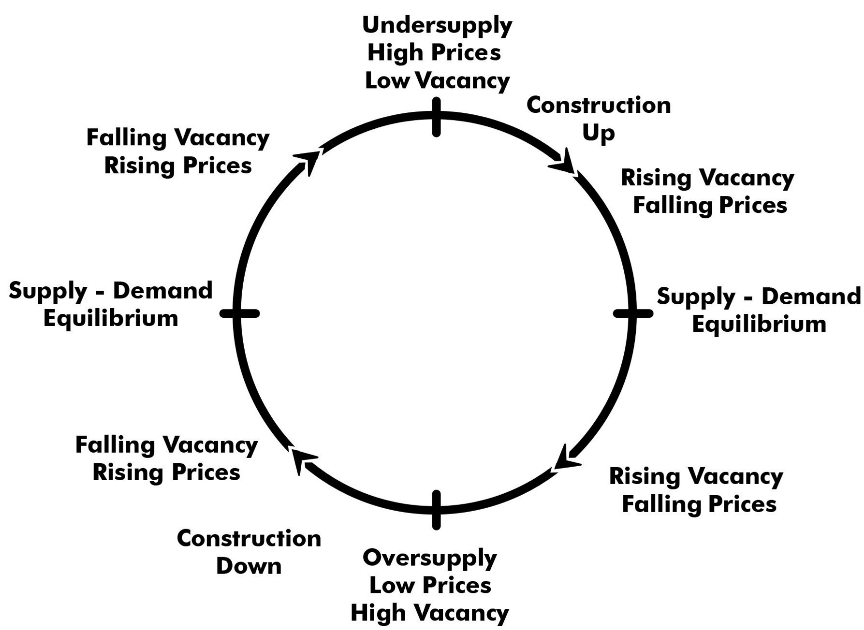
Base industries lead to the rise of supporting and secondary industries in the market. If the auto industry is the base, auto parts manufacturers and assembly industries will develop to support the auto manufacturing plants. In addition, service businesses emerge to support the many needs of the local population engaged in primary and secondary employment.

Thus, base employment feeds total employment. Total employment in a market includes base, secondary, and support industries. Total employment creates a demand for a labor force. From total employment derives demand for industrial and office space on the one hand; on the other hand, as employment grows, so grows the population, leading to the demand for housing and for retail support. In addition to creating demand for real estate, employment creates the purchasing power necessary for households to acquire dwellings and retail products.

Without employment, a real estate market evaporates, as there is no demand for commercial or industrial facilities, nor is there demand for retail services or housing. The best example of this phenomenon is a gold rush boom town: as soon as the gold runs out, there is no more mining. Without mining employment, everyone moves away and the town becomes a ghost town.

Supply and demand interaction. Real estate supply and demand, like supply and demand for other economic products, interact in the marketplace to produce *price movements.*

Exhibit 15.3 Real Estate Supply-Demand Cycle



As the exhibit illustrates, prices, construction, and vacancy move up and down in the cycle. Construction represents the addition of new supply. **Vacancy** is the amount of total real estate inventory of a certain type that is unoccupied at a given time. **Absorption** is the amount of available property that becomes occupied over a period of time.

Taking the point of undersupply, or high demand, as a starting point in the cycle, vacancy is low and prices are high. This situation stimulates suppliers to construct additional housing or commercial space. New construction, by adding supply, causes vacancy to rise and prices to fall until supply-demand equilibrium results. As more new space is added, supply begins to outstrip demand, vacancy continues to rise, and prices continue to fall. At the bottom of the cycle, prices and vacancy are at unacceptable levels, and construction ceases. The market "dies" until excess supply can be absorbed. The absorption process continues through the equilibrium point until price and vacancy conditions are sufficiently attractive to encourage renewed construction. Then the cycle repeats.

Market influences On supply and demand

Numerous factors in a market influence the real estate cycle to speed up or slow down. These influences can be local or national, and from the public or private economic sector.

Local market influences. Since the real estate market is local by definition, local factors weigh heavily in local real estate market conditions. Among these are:

- cost of financing
- availability of developable land
- construction costs
- capacity of the municipality's infrastructure to handle growth
- governmental regulation and police powers
- changes in the economic base
- in- and out-migrations of major employers

National trends. Regional and national economic forces influence the local real estate market in the form of:

- changes in money supply
- inflation
- national economic cycles

In recent years international economic trends have increasingly influenced local real estate markets, particularly in border states, large metropolitan areas, and in markets where the economic base is tied to foreign trade. In these instances, currency fluctuations have significant impact on the local economy.

Governmental influences. Governments at every level exert significant influence over local real estate markets. The primary forms of government influence are:

- local zoning power
- local control and permitting of new development

- local taxing power
- federal influence on interest rates
- environmental legislation and regulations

A good example of government influence over the local real estate market is a city government's power to declare a moratorium on new construction, regardless of demand. Such officially declared stoppages may occur because of water or power shortages, insufficiency of thoroughfares, or incompatibility with the master plan.

15 Real Estate Market Economics Snapshot Review

THE MARKET SYSTEM

Supply and demand

- supply: goods or services available for sale, lease, or trade
- demand: goods or services desired for purchase, lease, or trade

Price and value

- price mechanism: quantified value of an exchange
- value components: desire; utility; scarcity; purchasing power

Productivity and costs

- cost plus profit equals minimum price; production cost possible component of value

Market interaction

- market: transaction arena where suppliers and demanders define value through the price mechanism
- if supply increases relative to demand, price decreases; if demand increases relative to supply, price increases

Market equilibrium

- supply and demand tend toward balance where they are equal
- market equilibrium: price, cost, value theoretically the same; market imbalances are caused by changes in supply or demand

REAL ESTATE MARKET DYNAMICS

Economic characteristics of real estate

- governed by supply, demand, price, costs, value components, government influence
- inherent value; unique appeal; immovable supply; illiquid; slow response to cycles; decentralized market

Real estate supply and demand

- supply: property available for sale or lease; measured in dwelling units, square feet, acres; influenced by costs, finance, returns, government regulation
- demand: property buyers and tenants wish to acquire; measured in households, square feet, acres; influences: residential-- quality, amenities, price convenience; retail-trade area, sales, competition, site access, visibility; growth patterns; office-efficiency, costs, functionality; industrial--functionality, labor, regulatory compliance, access to labor, supplies, distribution channels
- base employment, total employment, population determine overall demand
- if employment and population increase, demand and prices increase; if they decrease, the opposite occurs
- supply-demand indicators are price, vacancy, and absorption; vacancy is existing, unoccupied supply; absorption is the "filling up" of vacancy
- real estate supply-demand cycle: undersupply > accelerated construction adds supply > equilibrium > construction adds more supply > oversupply > construction stops > equilibrium > demand absorbs supply

Market influences on supply and demand

- local economic factors; national economic trends in money supply, inflation; government regulation at all levels