Real property is the focus of real estate appraisal activity. Society generally perceives real property to be a good investment, allowing individuals to achieve economic goals through the ownership and successful management of real estate. Real estate markets have always been turbulent and probably always will be. For example, in the early 1980s, the Bank of Canada (and the federal government) increased interest rates to combat inflation, and house prices fell sharply as mortgages became unaffordable. Eighteen years later, to stimulate a slowing economy, regulators dropped interest rates to near historic lows, reducing the cost of mortgage financing and stimulating housing demand and increasing house price levels. In the United States, aggressive subprime lending in the 2000s contributed to an abundance of foreclosed properties and brought on federal scrutiny and intervention. Developers often perceive public controls and municipal development levies as excessive. Nevertheless, real estate markets remain an important investment vehicle and a generator of economic activity.

In determining their level of participation in the real estate market, individuals consider their wants and needs as well as the variety of options available to them at different times. Their choices help support a free market economy. Thus, both individual and collective decisions contribute to the nation’s economic success. Similarly, the production of goods, services, and income depends on the combined effects of four essential economic ingredients, commonly referred to as the four agents of production:

- Land
- Labour
- Capital
- Entrepreneurial coordination

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AGENTS OF PRODUCTION

Traditional economic theory holds that four agents of production are combined to create real estate and that the sum of the costs to develop a property is one of the basic measures of real property value available to appraisers. In other words, combining land, labour, capital, and entrepreneurial coordination creates a finished real estate product. An appraiser might develop a well-supported opinion of value through systematic analysis of each of these components, their interrelationships, and their relationship to the property as a whole.

Land

The first thing an entrepreneur generally considers in developing a property is the cost of acquiring the land. The cost of a vacant site or parcel of raw land is the cost of acquisition. The appraiser anticipates that an owner will add improvements and market the property to tenants or multiple end users.

Labour

The labour component comprises all direct and indirect costs required to construct and market the product as land alone or with improvements. Direct costs include not only the wages paid to individuals, but also the cost of materials used in construction. Indirect costs consist of permit fees, marketing expenses, taxes, overhead, the cost of project coordination or supervision, and financing costs that are not included in the rate paid to the lender over the development period.

Capital

Real estate development requires physical capital such as equipment (e.g., machinery and tools), buildings, and infrastructure (that is, capital goods) that can produce other goods.

Entrepreneurial Coordination

No prudent developer will undertake to construct and market a property without anticipating receipt of a profit in addition to the return of the equity investment. The purchaser who continues an existing land use is not creating value, only maintaining value through proper management of the property. A developer, on the other hand, invests not only equity in a development, but also time and expertise. Accordingly, an entrepreneur expects a reward – known as entrepreneurial incentive (and measured in the marketplace as entrepreneurial profit) – for creating and marketing a real estate product through the coordination of land, labour, and capital. More precisely, entrepreneurial incentive is a forecast of the amount the devel-
oper expects to receive. This forecast is developed before construction is complete. Entrepreneurial profit is the actual amount received after the property is complete. The fourth agent of production, entrepreneurial coordination, accounts for that investment of time and expertise. Chapter 17 discusses entrepreneurial incentive and entrepreneurial profit in greater detail.

**ANTICIPATION AND CHANGE**

The human actions that collectively shape market operations reflect the pursuit of economic goals. To analyze the many dynamic and interactive factors that influence people’s attitudes and beliefs about value, an appraiser must address the fundamental principles of anticipation and change.

**Anticipation**

The anticipation of future benefits creates value. In real estate markets, the current value of a property is usually not based on its historical prices or the cost of its creation; rather, value is 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 of ownership and occupancy. Prior to the property’s 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. The basis of value for income-producing real estate is the future income it will produce. As a result, 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 a property or a market is relevant only insofar as it helps interpret current market anticipations.

**Change**

The dynamic nature of the social, economic, governmental, and environmental forces that influence real property value accounts for change. Although change is inevitable and continuous, the process may be gradual and not easily discernible. In active markets, change may occur rapidly, with new properties put up for sale and others sold on a daily basis. Plant or government facility closures, tax law revisions, the start of new construction, or natural disasters can precipitate abrupt changes. The pervasiveness of change is evident in the real estate market, where the social, economic, governmental, and environmental forces that affect real estate are in constant transition. Changes in these forces influence

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**Definition:**
- **anticipation**: The perception that value is created by the expectation of benefits to be derived in the future.
- **change**: The result of the cause and effect relationship among the forces that influence real property value.
- **opportunity cost**: The cost of options foregone or opportunities not chosen.

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“All values are anticipations of the future.”
– Justice Oliver Wendell Holmes, Jr.
The principles of anticipation, change, supply and demand, competition, and substitution are fundamental to understanding the dynamics of value. The demand for and supply of real estate and, therefore, individual property values. Appraisers attempt to identify current and anticipated changes in the market that could affect current property values, but, because change is not always predictable, opinions of value are said to be valid only as of the specified date of valuation. An appraiser’s analyses and conclusions reflect what the market anticipates, rather than what the appraiser or the owner anticipates.

Shifts in market preferences also provide evidence of change. Real estate is not readily adaptable to new consumer preferences and thus often suffers obsolescence, i.e., an impairment of desirability and usefulness. The physical, functional, and economic impairments observed in buildings as they age result in depreciation, which is defined as a loss in property value from any cause. Depreciation may be seen as the difference between the cost to reproduce or replace a property and its present value. In general, deterioration or obsolescence causes losses in property value. Since obsolescence can begin in the design phase and deterioration may start while a building or improvement is still being constructed, the different types of deterioration and obsolescence found in a property have unique implications in appraisal. Chapter 19 presents a detailed discussion of deterioration and obsolescence.

SUPPLY AND DEMAND, SUBSTITUTION, BALANCE, AND EXTERNALITIES

The appraisal principles of supply and demand, substitution, balance, and externalities can be applied to the unique physical and legal characteristics of a particular parcel of real property. When these basic economic principles are in proper accord, they indicate the highest and best use of the parcel of land, which has great significance in real property appraisal. Chapter 12 discusses highest and best use in detail.

Supply and Demand

In economic theory, the principle of supply and demand states that the price of a commodity, good, or service (or, in a real estate context, the price of real property) varies directly, but not necessarily proportionately, with demand and inversely, but not necessarily proportionately, with supply. Thus, an increase in the supply of an item or a decrease in the demand for an item tends to reduce the equilibrium price. The opposite conditions produce an opposite effect. The relationship between supply and demand may not be directly proportional, but the interaction of these forces is fundamental to economic theory. The interaction of suppliers and demanders, or sellers and buyers, constitutes a market.

Supply

Property values usually vary inversely with changes in supply. If properties for a particular use become more abundant relative to demand, their equilibrium value
declines. By contrast, if properties become more scarce and supply declines relative to demand, the equilibrium price of the properties increases. The supply of and demand for commodities always tend to move toward equilibrium. At this theoretical point (which almost never occurs), 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. Typically, markets will supply more of an item at a higher price and less at a lower price. Therefore, the supply of an item at a particular price, at a particular time, and in a particular place indicates that item’s relative scarcity, which is a basic factor of value.

The supply of real estate is dependent on the costs of the four agents of production, which are brought together to produce a product that is offered for sale. Increasing demand in a particular market will drive up property values and the quantity of new properties offered for sale generally increases. When the supply of the agents of production declines, property values again tend to rise. On the other hand, increases in the productivity of labour, greater technological efficiency, improvements in capital goods, or the utilization of more capital goods per worker tend to reduce development costs. A building boom set in motion by developer’s rising expectations of profit may result in an oversupply of properties.

Since real property is both a physical commodity and a service, 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. Consequently, those involved in real estate are primarily concerned with the supply of land suitable for a specific use, not simply the total number of hectares or acres available.

Generally the quantity of space supplied for a given use is slow to adjust to changes in price levels. The length of time needed to build new structures, the large amount of capital required, and government regulations often hamper a supplier’s ability to meet changes in the market. However, the 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**

Demand is the desire and ability to purchase or lease goods and services. In real estate, demand 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 of time. Typically a market will demand less of an item at a higher price, and more at a lower price.

Since it is difficult to augment the supply of real property for a specific use in a short time, current demand strongly affects values. Demand, like supply, can be characterized in terms of both quantity and quality. For example, the 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. Appraisers must interpret market behaviour to ascertain the existing relationship between the supply of and the demand for the type of property being appraised.
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**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 two or more potential sellers or landlords to effect a sale or lease. Competition is fundamental to the dynamics of supply and demand in a free enterprise, profit-maximizing economic system.

Buyers and sellers of real property operate in a competitive market setting. In essence, each property competes with all other properties suitable for the same use in a particular market segment and often with properties from other market segments as illustrated in the following 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 forces tend to reduce unusually high profits. Profit encourages competition, but excess profits tend to attract ruinous competition. For example, the first retail store to open in a new and expanding area may generate more profit than is considered typical for that type of enterprise. If no barriers to entry exist, owners of similar retail enterprises will likely gravitate to the area to compete for the surplus profits. Eventually there may not be enough business to support all the retailers. A few stores may profit, but others will fail. The effects of competition and market trends on profit levels are especially evident to appraisers making income projections as part of the income approach to value.

**Substitution**

The principle of substitution states that when several similar or commensurate commodities, goods, or services are available, the one with the lowest price will attract the greatest demand and widest distribution. This is the primary principle upon which the cost and direct comparison approaches are based.

Between purchasers or tenants, the interactive efforts of two or more potential purchasers or tenants to make a sale or secure a lease; between sellers or landlords, the interactive efforts of two or more potential sellers or landlords to complete a sale or lease; among 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.

The price of acquiring an equally desirable substitute property tends to set property value. The principle of substitution recognizes that buyers and sellers of real property have options, in that other properties are available for similar uses. The substitution of one property for another may be considered in terms of use, structural

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design, or earnings. The cost of acquisition may be the cost to purchase a similar site and construct a building of equivalent utility, assuming no undue cost due to delay; this is the basis of the cost approach. On the other hand, the cost of acquisition may be the price of acquiring an existing property of equal utility, again assuming no undue cost due to delay; this is the basis of the direct comparison approach.

The principle of substitution is equally applicable to properties such as houses, which are purchased for their amenity-producing attributes, and properties purchased for their income-producing capabilities. The amenity-producing attributes of residential properties may include excellence of design, quality of workmanship, or superior construction materials. For an income-producing property, an equally desirable substitute might be an alternative investment property that produces equivalent investment returns with equivalent risk. The prevailing prices, rents, and rates of equally desirable substitutes tend to set the limits of property prices, rents, and rates. The principle of substitution is fundamental to all three traditional approaches to value: direct comparison, cost, and income.

Although the principle of substitution applies in most situations, the market perceives the characteristics of a product to be unique. The demand generated for such products may result in unique pricing. For example, a market may not have ready substitutes for special-purpose properties like a historic residence, medical office building, or high-tech manufacturing plant. In those situations, the appraiser may have to research substitute properties in a broader market or employ analytical techniques appropriate for limited-market properties.

**Balance**

The principle of balance holds that real property value is created and sustained when contrasting, opposing, or interacting elements are in a state of equilibrium. This principle applies to relationships among various property components as well as the relationship between the costs of production and the property’s productivity. Land, labour, capital, and entrepreneurial coordination are the agents of production, but for most real property the critical combination is the land and improvements. Economic balance is achieved when the combination of land and improvements is optimal, i.e., when no marginal benefit or utility is achieved by adding another unit of capital.

The 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. At this point, the point of decreasing or diminishing returns, maximum value is achieved. Any additional expenditure will not produce a return commensurate with the additional investment. When the point of decreasing returns is reached, further increments in the agents of production will cause productivity to decline proportionally. This is also known as the principle of diminishing marginal productivity.

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1 The specific issues involved in the valuation of unique properties are addressed in Frank E. Harrison, *Appraising the Tough Ones: Creative Ways to Value Complex Residential Properties* (Chicago: Appraisal Institute, 1996).
balance
The principle that real property value is created and sustained when contrasting, opposing or interacting elements are in a state of equilibrium.

law of decreasing returns
The premise that additional expenditures beyond a certain point (the point of decreasing returns) will not yield a return commensurate with the additional investment; also known as law of diminishing returns.

law of increasing returns
The premise that larger amounts of the agents of production produce greater net income up to a certain point (the point of decreasing returns).

The fertilization of farmland provides a simple example. Applying fertilizer to a land parcel increases crop yield only up to a point. Beyond that point the additional fertilizer will produce no further increase in the marginal output of the acreage. The optimum amount of fertilization is achieved when the value of the increment in yield resulting from the last unit of fertilizer equals the additional expenditure on fertilizer. This is the point of balance.

As a further illustration, consider a developer who is deciding how many bedrooms to include in a single-unit house being developed for sale on the residential market. The typical single-unit house in this residential market has three bedrooms. It may be uneconomic to include a fourth bedroom if the cost to build exceeds the value added to the property.

The principle of balance also applies to the relationship between a property and its environment. A proper mix of various types and locations of land uses in an area creates and sustains value. A residence near other residences has much more market appeal than a residence next to a landfill or an all-night gas bar.

The principle of balance and the principles of contribution, surplus productivity, and conformity are interdependent and crucial in highest and best use analyses and market value estimation. These concepts form 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 principle of contribution states that 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 from the value of the whole. The cost of an item does not necessarily equal its value. A swimming pool that costs $30,000 to install does not necessarily increase the value of a residential property by $30,000. Rather, the pool’s dollar contribution to value is measured in terms of its benefit or utility in the market. The swimming pool’s 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 cost.
- Lower than its cost, though still contributing positively to value. This is the most common situation, i.e., more than zero but less than 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 contribution 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. Nevertheless, an existing, less-than-optimal use, called an interim use, will continue until it is economically feasible for a developer to absorb the costs of converting the property, either by razing and replacing the existing improvements or by rehabilitating them.

**Surplus Productivity**

Surplus productivity is the net income to the land remaining after the costs of the other agents of production have been paid. The classical economists of the 18th and 19th centuries identified the surplus with land rent, which they understood to account for land value. Traditionally, the principle of surplus productivity has provided the basis for the residual concept of land returns and residual valuation techniques (See Chapter 22). The principles of surplus productivity and residual 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. Some 20th century economists argue that surplus productivity should be ascribed to a different agent of production, i.e., the entrepreneurial coordination required to combine the land, labour, and capital into a complete real estate product.

**Conformity**

Conformity holds that real property value is created and sustained when the characteristics of a property conform to the demands of its market. The styles and uses of the properties in a given area may conform for several reasons, including 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 in terms of price. According to the principle of progression, a lower-priced property will be worth more in a high-priced neighbourhood than it would in a neighbourhood of comparable properties. Under the principle of regression, a higher-priced property will be worth less in a low-priced neighbourhood than it would in a neighbourhood of comparable properties. Of course, there are exceptions to these principles. 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 the diversity.

**Externalities**

The principle of externalities states that factors external to a property can have either a positive or negative effect on its value. Bridges and highways, police and fire protection, and a host of other essential structures and services are positive externalities that are provided most efficiently through common purchase by the government. Negative externalities result when the actions of others impose inconveniences on property owners.

For example, a firm that violates environmental law by dumping hazardous waste and manages to evade responsibility imposes the cleanup costs on others.

Since real estate is physically immobile, external influences affect it more strongly than most other economic goods, services, or commodities. Externalities may refer to the use or physical attributes of properties located near the subject property or to the economic conditions that affect the market in which the subject property competes. For example, an increase in the purchasing power of the households that constitute the trade area for a retail facility will likely have a positive effect on the 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. The effects of foreign trade are particularly strong in Ontario, Montreal, and British Columbia, areas that have economies subject to shifts in trade volume with the United States, European, and Pacific Rim areas respectively.

National fiscal policy also plays a vital role in the economy and, consequently, 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 have had varying effects in different areas of Canada. In the 1990s, the West Coast economy strengthened as a result of expanded Pacific Rim trade, while the prairies suffered from low agricultural commodity prices. Areas with more diversified economies did not experience as severe a recession. Throughout the 1990s, the growth of the information technology industry in various pockets across the country – greater Ottawa, Vancouver, and Kitchener-Waterloo, among others – had profound impacts on real estate values in those areas. In Newfoundland, economic growth from off-shore oil development created strong economic growth.
Changes to the Income Tax Act in 1972 made gains in the value of investment real estate in Canada taxable; before that, such "capital gains" were free of tax. Further reforms at the same time prevented rental investors from claiming depreciation charges (called capital cost allowances or CCA) as deductions against income from other sources. These changes had a far-reaching effect on the value of investment-grade properties. Due to the tax advantages available prior to 1970, some real estate markets had been overbuilt. After the tax law was changed, the oversupply was recognized and values in these markets declined significantly.

In 1974, the multiple-unit residential building (MURB) provision of the Income Tax Act restored the favourable CCA treatment for rental apartment developments. The MURB provision was extended several times—it was in effect from 1974 to 1979 and was reinstated from 1980 to 1981. The purpose of the MURB provision was to stimulate investor interest in rental housing; at this it proved successful, as many syndicated MURB tax shelter rental projects were built across Canada during this time. However, in 1978, depreciation rates for MURBS were reduced, and in 1979 and 1981, the deductibility of expenses for rental investors was limited, making this type of investment less attractive. During the recessionary period that commenced in 1981, demand for rental multi-unit developments disappeared. By the mid-1980s, low interest rates stimulated a gradual economic recovery and sales of new and existing homes picked up.

during the decade following 2000; oil and gas development in Alberta, and to a lesser extent in Saskatchewan and eastern British Columbia led to escalating real estate values, with the rapidly increasing incomes of Alberta residents leading to high demand for recreational property in British Columbia. Manitoba’s economy increased steadily in the first decade of the century, with good agricultural prices augmenting growth in the manufacturing and services sector.

The Maritime provinces changed markedly throughout the 20th century, partly as a result of global and national economic trends, and partly as a result of government intervention. Each sub-region within the Maritimes has developed over time to exploit different resources and expertise. Saint John became a centre of the timber trade and shipbuilding and is currently a centre for oil refining and some manufacturing. The northern New Brunswick region is focused on the pulp and paper industry and some mining activity. Historically a railway centre, Moncton has changed its focus by becoming a multi-modal transportation centre with associated manufacturing and retail interests. The Halifax metropolitan area has come to dominate peninsular Nova Scotia as a retail and service centre, but the province’s industries have traditionally extended from the coal and steel industries of industrial Cape Breton and Pictou counties, the mixed farming of the North Shore and Annapolis Valley, and the fishing industry on the South and Eastern Shores. Prince Edward Island is largely dominated by farming, fishing, and tourism, and experienced strong growth from 2004 to 2008, due to the strength of these sectors.

Quebec has three distinct economic regions: the agricultural St. Lawrence River Valley, the natural resource-rich areas north of the St. Lawrence River Valley, and Greater Montreal. The agricultural St. Lawrence River Valley experienced strong growth from 2004 to 2008, following high demand for agricultural commodities. The natural resource-rich areas north of the St. Lawrence River Valley also experienced...
strong growth during this decade, although pulp, paper and lumber demand fell off as the US economy slowed starting in 2006. Greater Montreal is a service, manufacturing, technology and distribution centre and particularly benefited from the strength of the aerospace sector until the global economic downturn in 2008.

In Canada's North, the service and natural resource sectors have dominated. Recent development of diamond mines in Northwest Territories and Nunavut, and pipeline projects in the Northwest Territories and Yukon have added economic activity and affected real estate markets.

At the 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. Appraisers should be familiar with external events at all levels that can impact property values.

**FORCES THAT INFLUENCE REAL PROPERTY MARKETS**

The value of real property reflects and is affected by the interaction of four basic forces that influence human activity:

- Social forces
- Economic circumstances
- Governmental controls and regulations
- Environmental conditions

The forces are interactive; they exert pressure on human activities and are, in turn, affected by these activities. The interaction of these forces influences the value of every parcel of real estate in the market.

An understanding of value-influencing forces is fundamental to the appraisal of real property. To develop an opinion of value, an appraiser investigates how the market views a particular property, and the scope of this investigation is not limited to static, current conditions. Rather, the appraiser analyzes trends in the forces that influence value to determine the direction, speed, duration, strength, and limits of these trends. Chapters 4, 8, and 9 further discuss the observation and analysis of value influences.

**Social Forces**

The social forces studied by appraisers primarily relate to population characteristics. Appraisers need to properly analyze and interpret demographic trends because the demographic composition of the population reveals the potential demand for real estate. Real property values are affected not only 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. Social forces are also reflected in attitudes toward education, law and order, and lifestyle options.
Economic Forces

To determine the influence of economic forces on value, appraisers analyze the fundamental relationships between current and anticipated supply and demand and the economic ability of the population to satisfy its wants, needs, and demands through its purchasing power. Many specific market characteristics are considered in the analysis of economic forces:

- 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
- Construction costs

An appraiser might study other economic trends and considerations as the analysis focuses on successively smaller geographic areas.

Governmental Forces

Political and legal activities at all levels of government can have a great impact on property values. The legal climate at a particular time or in a particular place may overshadow the natural market forces of supply and demand. As mentioned previously, the government provides many necessary facilities and services that affect land use patterns. Therefore, appraisers must diligently identify and 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

The natural and man-made environmental forces that may be analyzed for real estate appraisal purposes include the following:

- 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 area surrounding a property

All of these factors are environmental, although market participants usually associate the term with the conservation of natural resources (e.g., wildlife, timberlands, and wetlands) and the regulation of man-made pollution. Chapter 10 discusses the treatment of hazardous substances in real estate appraisal.

The environmental 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 has both an environmental and an economic character. Time and distance are measures of relative access that an appraiser considers 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
- Recreational and cultural facilities
- Places of worship
- Sources of employment
- Product markets
- Suppliers of production needs
- Processors of raw materials

The proximity of industrial properties to residential areas provides the businesses located there with access to workers, but proximity to potentially hazardous substances may penalize the market for residential properties.