



# **Real Estate Finance**

## Lesson 7

### Mortgage Loan Origination, Processing, and Servicing – Part 1

45 Hour Louisiana Post-Licensing

## **LOAN ORIGATION AND PROCESSING**

Loan underwriting, or qualification, is a crucial step in the real estate lending process for both the lender and the borrower. Loan qualification is a component of the overall loan application process, and includes not only consideration of the value of the collateral pledged as security, as well as the creditworthiness of the borrower(s). Loan application is a chance for the prospective borrower to convince the lender that loan proceeds will be put to good use, and that they will be paid back as agreed. The lender, on the other side of this process, uses the loan application and review procedures to gather relevant information regarding the property and the borrower to evaluate the potential risks associated with making the loan. The applicant's credit scores will be retrieved from the three major reporting agencies and evaluated within the framework of the loan for which the borrower is applying. Scores below certain levels may disqualify an applicant entirely, or place them at a risk profile level requiring more detailed review, supplemental or supporting information, and possibly requiring a higher interest rate on the loan itself. The loan scoring and evaluation must be objective and impartial following all of the regulatory guidelines set forth in laws such as Truth in Lending, Fair Housing and Equal Credit Opportunity. Each of these has one or more forms providing one of many disclosures required, which must be provided to the borrower at specified points in the application process. Failure by the lender to make appropriate disclosures, and/or provide the appropriate documents can, and often does, result in a regulatory compliance violation subject to criticism by examiners.

Loan application and processing includes a two way flow of information between the borrower and lender, some of which are bureaus, land surveyors, building inspectors and real estate brokers or salespersons. In evaluating the borrower, the lender is attempting to assess the four "C's" of credit analysis: credit history, character of the borrower, capacity to repay, and collateral value of the asset pledged. Much of the information required for this evaluation is drawn from information provided by the borrower in the loan application, which includes an income statement, balance sheet and employment history. Additionally, the loan officer gathers information through verification of bank and other financial accounts and employment history. The lender requests recent credit reports and may verify through other references the information provided on the application. This information is used primarily to judge the credit history and character of the prospective borrower, as well as to analyze the capacity or ability of the borrower to repay the loan requested when the relationship of monthly debt services payments to income is taken into consideration.

### **The Five Major Elements of Mortgage Lending**

The five major elements of mortgage lending includes qualifying the borrower, the property, and the title as well, as closing and then servicing the loan. Each requires a variety of individuals with the appropriate skills and experience necessary to complete a successful transaction. Each of these elements also has its own attendant costs and fees associated with it, which can be a fairly significant amount when taken collectively. This somewhat high transaction cost, when compared to those of say, securities or other investment transactions, is a reflection of the imperfectly competitive nature of real estate markets. Transaction costs can be minimized in some instances, but the complexity of the transaction itself and the need for people with specific types of expertise and experience, make keeping costs low challenging. In fact, some would argue that attempting to get a "deal" on some closing and financing fees could very well come back to haunt one or more parties to the transaction. The adage "you get what you pay for" is very applicable, and one that should be considered when one is tempted to take a short cut to lower costs, or retain someone with questionable credentials to provide services.

## Qualifying the Property

Qualifying the property is essentially a matter of having the collateral appraised and inspected. The appraisal is focused on establishing a Fair Market Value for loan purposes, while the inspections are to verify the collateral's condition and corroborate disclosures made by the current owners/sellers. Since appraisal and inspection are covered elsewhere in this course, the discussion here will be somewhat limited. Suffice it to say that property should be thoroughly inspected by a qualified person(s) who can attest to the condition and physical integrity of the improvements. This would include, but not necessarily be limited to, inspections of the roof, foundation, HVAC systems, plumbing and electrical service, as well as specialty items such as swimming pools, hot tubs/spas, outdoor ancillary buildings (i.e., RV storage, shops, barns, etc.). Some inspections, such as for pools and spas, may require a specialist with the appropriate experience and equipment to detect hidden defects such as leaks in pool linings, insufficient pump pressures, and the like. The results of independent inspection reports should be compared to the seller disclosure statement to identify, clarify and reconcile discrepancies. The outcome of the inspection may very well dictate whether the next steps of the financing process are embarked upon or terminated if they have already begun. Property inspections are particularly important for older properties, which have been subject to a fair amount of physical wear and tear and functional obsolescence. They are also important in locations that have experienced a significant natural disaster (i.e., flood, hurricane, tornado, etc.) which inflicted widespread property damage. Inspections in these instances should focus on the quality of the reconstruction, particularly the materials used and measures taken to mitigate future risks associated with mold (from flooding) or structural damage (from sustained hurricane force winds). In the latter instance, the inspection should ascertain as well as possible if updated building codes were followed in the reconstruction process.

## The Appraisal

The appraisal, on the other hand, is primarily concerned with establishing a fair market value for the collateral the lender will be accepting as security for the loan, thus on which they will be placing a lien. Although the appraiser also must conduct an inspection of the property, it is a more cursory unit to verify its size, general condition and conformity with its immediate surroundings, as well as to determine the type of properties that will be chosen as comparables used to establish indications of market value. The appraiser must adhere closely to the Uniform Standards of Professional Appraisal Practice (USPAP,) which were an outgrowth of the FIRREA legislation of the 1980's and that have, and continue to undergo, revisions and additions. The results of the appraisal are then compiled and reported (as per USPAP) in one of several ways: an oral report, letter report, form report, or full narrative report. Most residential appraisals are reported on either a FNMA/FHLMC form or on either an FHA or VA approved form. The form of the report, while important, does not alter the methodology required for the appraiser to arrive at a supportable and defensible opinion of market value.

It is important for everyone involved in the transaction to understand that an appraiser is rendering his or her opinion of value. The opinion is not a fact as such, but is an informed statement by the drawing upon facts extracted from the marketplace, applied within specific methodological steps, reconciled based upon the experience and professional judgment of the appraiser, and rendered as of a specific date. Consequently, the appraisal is subject to review, criticism, alteration, and possibly being completely redone by a different appraiser. Federal regulations have, in effect, created firewalls which separate the appraiser from those who stand to benefit from, or possibly be hurt by the ultimate value opinion rendered. This means that direct communication between the property owner, real estate agent and lender's loan officer and the appraiser selected for a particular assignment is very limited, and in some cases, prohibited. In institutions where the right to select appraisers has been retained, the selection is by random rotation from a list of previously qualified and board approved appraisers. Communication, thereafter, is limited to the bank officer with direct responsibility for managing and overseeing the

appraisal process. This cannot be the loan officer processing the borrower's application. Some institutions outsource the appraisal process to Appraisal Management Companies who handle the selection and oversight responsibility for the originating lender. This process helps to solidify the communication firewalls, thus reducing risks associated with regulatory compliance. However, this approach has several drawbacks that have, in some cases, caused confusion and produced less than satisfied borrower/customers. One of the biggest criticisms of Appraisal Management Companies is that they draw on a pool of generally less experienced appraisers whose main business activity is significantly removed from the local market in which they have been chosen for an assignment. Real estate markets, by virtue of the fixity of location, are local and require local appraisers with local experience and access to reliable local information. Assigning an appraiser from one area of a state to do a residential single-family appraisal in another area of the state, perhaps 50 miles away, makes little, if any, business or common sense. Such an assignment would render the appraisal's conclusions suspect and subject to criticism, and the possibility of having to be redone by a local appraiser. This, unfortunately, takes time and money, delays the transaction and, needless to say, makes for an unhappy customer.

### **The Appraisal Process**

The following is a discussion of some basic concepts underlying the appraisal process, as well as forces which affect value and the methodologies used by appraisers to measure the influences those forces have on their opinions of market value. The emphasis here will be on market value, and not other values which could be determined for a property such as going concern, use, assessed, insured or investment. These are addressed in more detail elsewhere in the course materials.

Generally, value may be considered a relationship between a thing desired and a potential purchaser. In its very basic context, value is the desirability or worth of a thing when viewed from the perspective of the one making the acquisition. The most frequently used definition of value identifies its role in relation to an exchange that is "the quantity of one thing which can be obtained in exchange for another". This is the generally accepted definition in the appraisal profession. Value exists in the mind of the individuals. It is not inherent, but is a quality or feature ascribed to a good or service, based on how individuals consider it in relation to other goods or services which may be available. The value which individuals are willing to ascribe to goods and services changes over time, as their personal preferences and needs change, and as surrounding environmental conditions within the marketplace change. Value must be considered not only in the context of past or current events, conditions and information, but also on one's assessment of the future. The fact that value is forward looking based on past experience is essential to an understanding of the valuation process, particularly when value is considered in the context of the present worth of future benefits likely to be received. It is critical to point out that value, particularly market value, is viewed always from the perspective of the consumer. That is, it is the consumer who ascribes worth, not the appraiser, banker, or real estate agent. The appraiser is called upon to measure and quantify the worth ascribed to real estate assets by the consumer, while it is the banker's job in many instances to evaluate the appraiser's opinion and decide whether or not they are in agreement with regard to an asset's collateral value for loan purposes. Real estate salespersons very often find themselves acting as intermediaries between these two parties when a transaction's success hangs in the balance. However, as previously noted, the extent of their interaction is greatly limited by current and still evolving regulations. The licensed real estate and mortgage loan originators are well advised to keep abreast of the rules and follow them closely as fines and other penalties abound.

If markets were perfectly competitive, market price and market value would be equal and there would be no need for appraisers. It is fortunate for them that this is not the case. The free workings of supply and demand would function efficiently in such a way to establish perfect

equilibrium, and thus satisfy both consumers and producers at a market clearing price. Since real estate markets are imperfectly competitive, price and value may not be equal. Market price, as previously noted, is an historic fact or artifact resulting from an actual transaction between buyers and sellers. Market value, on the other hand, is an opinion based on actual transactions, but rendered by an individual under a set of well-defined conditions. The fact that market price and value might be equal is not necessarily an indication that markets are functioning more efficiently, but more likely the result of coincidence, contrivance or concessions (or some combination thereof).

Value is the market price that would tend to prevail under specified market conditions as of the appraisal/valuation date. The “as of” date on the appraisal is absolutely essential since it establishes the contextual framework governing the appraiser’s information gathering, analysis and final value reconciliation. Without an “as of” date, it is virtually impossible for an appraiser to provide a defensible opinion of value, and renders the appraisal worthless. Value is generally measured in terms of money, a commodity which itself varies in worth over time as market conditions change. This further reinforces the need to establish an effective date of an appraisal so the relative purchasing power of the dollar (or other relevant currency) is identified clearly.

Value is a function of the productivity of a commodity such as real estate. Productivity, however, is determined by use or utility of the goods to the consumer. This value concept is a basis for measurement of value in use, and helps to explain why the appraiser’s determination of highest and best use is a critical element of every appraisal. Appraisers measure value by measuring the impact of market forces and how these forces affect typical consumers or specific users of property. They do not determine or ascribe value to properties; consumers and users of the properties do this.

The types of values which can be measured or estimated share two common observations: a) each is a reflection of the purpose for which the measurement is undertaken; and b) in one way or another, each reflects market (consumer) interactions, perceptions, attitudes and preferences. The most important definition and type of value is market (sometimes referred to as fair market) value.

By definition, market value is the most probable price in terms of money which a property should bring in a competitive and open market under all conditions requisite to a fair sale - the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. This definition assumes that there is a consummation of a sale as of a specified date and the conveyance of title from seller to buyer under the following conditions: a) buyer and seller are typically motivated (i.e.; typical within the context of the market in which their transaction occurs); b) both parties are well informed or well advised and each is acting in what is considered his/her own best interest; c) a reasonable time is allowed for exposure of the property in the open market; d) payment is made in cash, or its equivalent; 3) financing, if any, is on terms generally available in the market at the specified or effective date; and typical for the property type and its location; and f) the price represents a normal consideration for the property sold and is unaffected by special financing amounts and/or terms, services, fees, costs; or credits incurred in the transaction. This definition, like many others which are used by appraisers, is evolutionary and not carved in stone. It has been modified over time to reflect changing conditions in the regulatory framework of real estate finance, as well as in the context of court decisions and judicial interpretations. Further modification/evolution is not only possible, but highly probably going forward.

For goods or services to have value, they must possess certain characteristics, or be affected by certain forces that are economic in nature. These characteristics or determinants are demand, utility, scarcity and transferability. They are not mutually exclusive, that is, they all must be present to some degree to create and sustain value. However, they may be (and usually are)

present in varying degrees. The forces which influence and impact these determinants of value are constantly changing and contributing differentially to the consumer's perceptions and attitudes of relative worth.

**Demand**, as a determinant of value, focuses on the study of people to establish whether or not they are present in sufficient numbers with needs, wants, and the ability and willingness to pay, to justify the introduction of specific goods or services. Qualifying demand requires an understanding of changing market forces such as a city's or metropolitan area's economic growth, as well as a careful study of shifting tastes and preferences within population sub-groups which make up segments of demand. Economic base and market analysis focus on changing forces at the macro-level that are likely to affect the quantity and distribution of demand, while the study of attitudes, preferences, life styles and opinions, and how they affect consumer behavior, is the subject of market research techniques generally categorized as psychographic testing and segmentation. Effective demand is a function of the consumer's willingness and ability to pay for goods or services, and thus contribute or ascribe value to them. Their willingness and ability to pay is a function of the availability and cost/affordability of financing. As such, cost and availability of mortgage funds are a force which either enhances or inhibits demand. Cost and availability of funds are themselves influenced by a wide range of forces such as monetary and fiscal policy of the federal government, the creation and implementation of regulatory policies by oversight agencies, and international money market conditions which may influence the yields demanded by investors and institutional lenders for the use of their financial resources.

**Utility** focuses on how well the product (property) meets the needs of its intended consumers. That is, it relates directly to the benefits which the property can provide. Utility, or the functional benefits which a property can provide, changes over time as a natural function of societal trends and demographic shifts which influence consumer tastes and preference. Likewise, utility can be enhanced or diminished by the exercise of government regulations and controls. Zoning, for example, may be changed, and thus influence the uses to which a property could be put legally. Similar use limitations could be imposed by deed restrictions or other contractual agreements which affect both current and future utilization of the property. Utility may be affected by the physical condition of properties, such as the size and shape of a vacant parcel, or the floor plan and structural integrity of building improvements. Utility is influenced by surrounding neighborhood or environmental factors which are affected by demographic and economic changes, as well as public policy decisions to allocate public resources to enhance physical infrastructure (i.e., streets, sewer, water) or delivery of public services (i.e., schools, police and fire protection, trash collection). Public decisions which are viewed as positive by the typical consumer enhance neighborhood perceptions, and thus the utility of properties located therein.

**Scarcity** refers to the relative supply of properties that can meet the needs of potential buyers or tenants. Emphasis should be placed on the concept of relative supply, that is, scarcity in relation to demand which exists within specific segments of demand (locationally, demographically, psychographically) for specific types of differentiated products or properties in given locations, of certain sizes, with certain qualities or amenities, and offering a set of property rights structured for a particular tenure. Evaluation of relative scarcity requires a careful analysis of competitive offerings relying on the valuation principle of substitution as a guide. It means counting and evaluating the number of substitute properties potential buyers or renters are likely to have available as alternatives from which to make their product/property selection. Economic forces most likely to influence scarcity include the construction of new supply to satisfy the needs of a growing economy. The production of new supply, in turn, is affected by governmental

policies and regulations at many levels. At the federal level, for example, monetary, fiscal and regulatory policies influence the cost and availability of funds for developers and builders, while at the local level, infrastructure improvements, or the lack thereof, may impact the price and availability of land suitable and accessible for development. Federal or state environmental wetlands or coastal zone regulations may also influence land availability and price and, thus, relative scarcity, while local zoning and land use policies may legally restrict the quantity of land available for certain uses and thereby create scarcity.

**Transferability** is a determinant of value that often is overlooked in classical economic thought with respect to its contribution to value. Imperfectly competitive real estate markets are characterized by complex transactions, if for no other reason than each is unique and subject to a wide range of legal considerations. Value is enhanced or created to the extent that the transfer of real property rights occurs with a minimum of impediments. A salesperson's job, or at least much of it, is to minimize potential obstacles which stand in the way of a successful conveyance. Real estate brokers and their salespersons facilitate transferability by promoting the sale/lease of property, providing information which buyers and sellers can use to make decision, assisting principals in the negotiations process, and shepherding the sale to a closing. Economic forces, particularly those which influence income and job growth, may influence the effort that would have to be expended to promote a property, while changes in government fiscal or monetary policy may affect the ease with which a buyer can secure financing, and thus the speed with which a sale is closed. Financing conditions can and do change very rapidly, and produce environmental impediments to the transaction over which the broker and principals exercise little, if any control. In such cases, brokers and their salespersons may have to help the parties negotiate creative financing techniques or alternatives, which would allow the transaction to proceed. Changes in the legal environment, or discovery of legal restrictions affecting a property, may interrupt a transaction; thus adversely affect its transferability and value. This is very much the focus of the Qualifying the Title in the Mortgage Lending process.

As previously stated, an appraisal is a supportable or defensible estimate of value. An appraisal is not a prediction, nor is it a certification of value or price. It is an opinion based on reasoned judgment, using information that is considered to be accurate and reliable, applying techniques or methodologies that are generally accepted by those who rely on appraisals in the course of conducting business, and which meet regulatory standards. An appraisal or estimate of value is, however, derived from expectations and forecasts of future events and conditions that are likely to affect consumer behavior.

Appraisals are done for many reasons and purposes, but fundamentally they are used to provide information that is instrumental in a pending decision (i.e.; purchase property, make a loan, settle a legal claim, etc.). In the majority of cases, the appraisal or opinion will focus on the estimate of market value (as defined) as of a given or effective date. Consequently, the approaches used and principles relied upon to estimate market value are not affected by the underlying purpose or reason for the appraisal. The focus is market value. How it is used is a decision of the party or parties for whom it was prepared.

Among the principles of market value applied to the valuation of real estate, **highest and best use** is the most central and fundamental to the appraisal process. By definition, a highest and best use (or the most profitable use or optimum use) is that reasonable and probably use that supports the highest present value as of the effective date of the appraisal. Alternatively, it may be considered as the most profitable likely use to which a property can be put. Implicit in these definitions is that highest and best use is the use

from among competing alternative uses for a property which meets or satisfies five conditions: 1) it is physically suitable, b) it is legally permissible, c) it is appropriately supported in the market, e) it is economically and financially feasible and, e) it produces the highest residual value to the land.

**Physical suitability** addresses the issue of reasonableness in the context of natural and man-made physical restraints affecting the property itself and its surrounding neighborhood environment. Factors such as the size, shape, dimensions, and subsoil characteristics of a site may impact the range or type of uses that are possible, while the general character of the surrounding neighborhood, and/or public infrastructure features which influence accessibility and proximity of area services and facilities to the subject property, may impose practical limitations on use.

The restraint of **legal permissibility** generally focuses on the uses which would be practical and allowable under both public and private restrictions. Public restrictions such as zoning and land use regulations establish a range of permissible uses within certain zoning categories or classes. For the highest and best use determinations, zoning quickly narrows the range of possible uses to be considered unless, of course, the directive is to ignore zoning in anticipation of a change. Private deed restrictions may limit the range of permissible uses, sometimes more so than an existing zoning ordinance.

The restraint of **appropriate support** within the market focuses on the marketability of the subject property in a competitive environment influenced by forces of demand and supply, which the appraiser must analyze and evaluate. This involves not only consideration as to how past and current market trends have affected properties similar to the subject, but more importantly, how future changes in societal/demographic trends, economic, employment and income growth, and consumer attitudes and preferences are likely to affect the absorption potential/marketability of the subject. Careful examination and evaluation of market support is critical in reaching a valid conclusion with respect to highest and best use.

Economic and financial feasibility is a constraint which must be considered in the context of what is also market supportable. To meet the test of economic/financial feasibility, the use must be supportable at prices or rents which are sufficient to cover capital acquisition, operating and ownership costs, while providing a market rate of return to owner/investors. The market may support the absorption of 200 garden apartments at an average rent of \$800 a month. However, if the costs necessary to produce (or acquire) and operate these 200 units dictates a rent of \$1,000 per month per unit, this use would not meet the restraint of economic feasibility, and thus would not be the highest and best use of the property as of the appraisal date.

If these four criteria are satisfied, then the restraint of highest residual value will be satisfied as well. This restraint reflects the principle of surplus productivity, which states that the residual benefits generated by a property after the factors of production of labor, capital and entrepreneurial expertise are compensated at market rates, the residual accrues to the underlying land. Economists refer to this residual income as land rent, and it is the basis upon which location decisions are made and land development patterns emerge. Urban development patterns are a reflection of consumer bidding activity for locations predicated upon those locations having been put to their highest and best use as a result of interacting market forces of supply and demand over time.



Consumer decisions regarding location and price (rent) paid to secure those locations is also influenced by their expectations of receiving a flow of future benefits. These expectations are reflected in the valuation principle of anticipation and include both tangible (monetary) and non-tangible (pride of ownership) benefits. However, from a valuation standpoint, the appraiser is primarily concerned with measurable tangible benefits. Pride of ownership or prestige of location may ultimately be a measurable benefit reflected by the profit one receives at the end of a holding period which can be attributed to higher than expected rates of appreciation. Consumers buy with the expectation of appreciation over time, and factor that expectation of reversionary income into their assessment of the property's present worth. These expectations will also be influenced by the forces of supply and demand in the marketplace.

The **principle of supply and demand** states that market value is determined by the interaction of these two forces in the appropriate market as of the appraisal date. The appraiser must evaluate conditions and trends which are likely to influence changes in both demand and supply in the market. The appropriate market, in fact, may be at several geographic levels of consideration. Basically, the appraiser must evaluate relevant supply/demand forces in the immediate area (neighborhood) surrounding the subject property, particularly among the types or categories of real estate that are directly competitive and represent reasonable substitutes for the subject. However, localized neighborhood supply/demand conditions are impacted by economic and demographic trends with a larger area (i.e. city or metropolitan area). Their impact may not be as immediate as those at the neighborhood level, but they are no less important to the valuation problem. The same could be said for trends at the national and even international level, since local economies have differing degrees of interdependencies upon economic trends and conditions at these levels. The localized economic recession in oil producing states during the 1980's was more a result of international prices and supplies of oil, both of which were uncontrollable forces at local, state, or even regional levels.

The **principles of substitution and opportunity cost** are, for the most part, reflections of each other. The principle of substitution, which lies at the heart of the direct sales comparison approach to value, states that consumers pay no more for a good or commodity than other consumers pay for comparable goods or commodities that are of equal utility. Paying more than others inflicts an opportunity cost on consumers since they use more financial resources to acquire those goods, and thus forego the opportunity of acquiring more or better goods. There is an opportunity cost involved in the expenditure of resources, because in doing so, future opportunities for potentially greater gains are foregone. The essential point for consumers functioning in active markets is not to pay more than what others have established as value in exchange. Competitive position is evaluated on the basis of substitution, with the underlying assumption that rational consumers are selecting products or properties which provide them the greatest utility price/rent levels, which minimize or eliminate opportunity cost.

The **principle of change** permeates the entire valuation process and recognizes that market dynamics are never static. Forces in the market, such as societal/demographic trends, economic and employment conditions, government policies and surrounding environmental conditions, are subject to continuous change. The issue for the appraiser is to identify the most important changes which are likely to impact the valuation decision, and gather and analyze information which allows for a measurement of these changes which can be reflected in the value conclusion. The valuation conclusion, or estimate, is a forecast which reflects the appraiser's judgment with respect to how market changes are interpreted by typical consumers in their acquisition behavior.

The **principle of balance** holds that optimum market value is achieved when the agents or factors of production (i.e., land, labor, capital) and entrepreneurial expertise are in economic balance or equilibrium; i.e., they are each being adequately compensated at market terms. Labor is receiving its market wage, capital is receiving its market interest rate, entrepreneurs are receiving their market rate of return for the level of risk they incur, and land is receiving its residual land rent market. Imbalances occur when one or more agents of production are receiving more or less than market rates of compensation. Three related principles help to understand balance. These are the principles of contribution, variable proportions and surplus productivity (which have already been presented).

The **principle of contribution** (sometimes referred to as marginal productivity) asserts that the value of an agent of production, or a component part of a property, depends upon either how much it detracts from the value of the whole or entire property by its absence. This is a measure of the component's marginal productivity, or how much it adds to the total productivity of the property. This principle is the basis for estimating accrued depreciation in the cost approach, due to the subject property's physical deficiencies or super adequacies (i.e., over-improvements). It is also the basis for measuring the differences between the subject property and comparable properties in the adjustment process of the direct sales comparison approach.

The **principle of variable proportions** (or increasing and decreasing returns) is a logical outgrowth of the principle of marginal productivity. Variable proportions states that when successive increments of one or more factors of production are added to fixed amounts of the other factors, income or value (measured in dollars, benefits or amenities) first increases at an increasing rate, then increases at a decreasing rate, and finally decreases absolutely. This is an essential principle, when considering alternative use patterns and intensities of use in determining highest and best use. In such cases, land is the fixed element, and alternative improvement programs represent the variable factors. The appraiser must analyze the possible highest and best use alternatives, considering the point to which improvements can be added before dollars invested in capital expenditures receive diminishing returns—returns which do not adequately compensate production factors because they exceed what is sustainable within the market. When this occurs, the factors of production are out of balance.

**Externalities** are not a principle, but an economic concept that identifies factors outside of the subject property itself which affect the subject's value. Externalities are generally considered in the context of the appraiser's neighborhood analysis, and may have either positive or negative effects on the subject property's value. The effects of individual externalities are difficult to measure in terms of their contribution to or detracting from the value of the subject property. Externalities are considered in groups or categories with regard to their impact on the overall neighborhood environment, and may include features such as schools, churches, recreation facilities, employment and shopping locations, which generally contribute positively to values. Negative externalities may include intrusive or nuisance land uses which create noise, pollution or other inconveniences, as well as major new developments which place additional burden on the public infrastructure, and thus compete with existing properties for adequate services.

The public sector typically uses its police powers to create and enforce regulations designed to minimize the impact of negative externalities on the public or community at large. At minimum, this includes zoning and land use planning guidelines, the levy of impact fees, and other required direct compensation from those create negative externalities. Like most everything else in freely functioning markets, externalities are subject to change for better or worse. These and other changes observed by appraisers must be taken into consideration, as they apply to three approaches or methodologies used to arrive as indications of market value.

These approaches are discussed in the material which follows. Each approach or method is relatively straight forward and contains fairly few steps. However, their simplicity of structure can be deceiving. As they say “the Devil is in the details” and the details are usually defined by information availability and the applicability of an approach to a particular assignment. Although USPAP standards call for using all three approaches, the appraiser is able to make exceptions, as long as the reasoning for the exception is based on defensible facts or conditions.

The **Direct Sales Comparison Approach** is grounded in the principle of substitution, and most frequently is used in valuations of vacant land, single-family residences and condominiums or sales townhouses. It relies heavily on the availability of a sufficient quantity of recent transactions in the marketplace that best reflect consumer behavior with respect to properties comparable to the subject. The steps of the approach are straight forward and logical if one understands the principles of substitution and contribution. As in all approaches, it is assumed that the appraiser has completed a thorough inspection of the property and has identified those features which typical consumers consider in evaluating the subject and properties that are reasonable alternatives. The inspection and gathering of other property specific information helps the appraiser establish basic descriptive criteria that will be used to compare the subject with comparables selected which share many of the same features and qualities.

Since no two parcels of real estate are exactly alike, if for no other reason than uniqueness of location, comparables chosen for the analysis are not perfect substitutes for the subject. To apply the technique and minimize the influence of consumer opportunity cost when selecting between the subject and comparables, the comparables must be subjected to an adjustment process relying on evidence from the market to measure the contribution of differing features. Adjustments are made from comparables to the subject. That is, the subject is considered base 100 and either positive or negative dollar or percentage adjustments are made for features which differ from the subject. The objective of the adjustment process is to mathematically create perfect substitutes to the subject; that is, bring all the comparables (at least on paper) to base 100. The plus and minus dollar adjustments are made to the verified selling price of the comparables and summed to determine value for the subject.

The adjustments typically proceed in the following sequence: a) terms and conditions of financing; b) market-to-market or for the date/time of sales; and c) comparable property to the subject property for features such as size, location, condition and amenities. Tools used to measure or quantify the value of the adjustments include paired sales analysis, sequential analysis, regression analysis, and depreciated costs. Paired sales analysis is particularly useful in measuring the contribution of differing features based on an analysis of pairs of past transactions, which isolate on price deviations attributed solely to the presence or absence of a particular feature. This technique may also be used to quantify price differences (i.e., contributory value) for location variations, as well as variations in financing terms and conditions of the sale. However, for most financing adjustments, appraisers rely on mathematical techniques employing present value or discounting concepts.

Market-to-market adjustments to account for the passage of time since the date the comparables sold can be quantified using either a sequential or regression analysis. Both focus on measuring rates of change in price over time, based on a sampling of actual transactions drawn from the relevant market area. Although generally more accurate and reliable, regression analysis, by design, is a mathematical modeling technique that requires relatively large quantities of data. For most appraisers, the technique may be cumbersome and difficult to use. Reliance on a less data demanding technique like sequential analysis provides useful and reasonably accurate information for making time adjustments. The appraisers may also rely on information and analysis provided by local sources, which periodically track price and rent trends for the market area as a whole, as well as for individual neighborhoods.

**Cost Approach** is also grounded in the principle of substitution, in that it is based on the premise that a typically informed consumer pays no more for a property than it would cost to acquire a site comparably located and build new improvements of equivalent utility to the subject (less a charge for actual depreciation).

Although the cost approach may be used in valuing almost all types of real estate, it is particularly applicable in appraising special use properties such as churches, school buildings, government buildings, and hospitals. It is applicable for appraising newly constructed properties where there has been little or no accrued depreciation, as well as valuing proposed construction. The cost approach is also most useful when the direct sales comparison and income approaches cannot be applied for lack of sufficient information due to market inactivity.

The cost approach is deceptively simple because of the relatively few steps involved in the process. The approach rests on the principle that consumers pay no more for the property than it would cost to assemble a comparable set of factors. The appraisal process focuses first on estimating the value of the site underlying the improvements as vacant and available for development in its highest and best use. The appraiser relies on the direct sales comparison approach to do this, selecting sites comparable to the subject in terms of location, size (frontage and depth), topographical features, subsoil conditions, and other natural features. Adjustments for deviations from the subject as base 100 are made in a similar manner, as previously discussed with plus and minus dollar, or percentage adjustments substantiated by market evidence.

The balance of the cost approach focuses on the improvements: estimating the replacement cost new, and deducting market derived measures of diminished utility (accrued depreciation) caused by physical depreciation, functional and locational/economic obsolescence. The appraisal process usually requires estimating the replacement cost new of the improvements.

Replacement cost is the cost of constructing a new building at current prices, having utility equivalent to the building being appraised, but built with modern materials and according to current standards, design and layout.

Once the replacement cost new of structures and site improvements have been estimated, the appraiser then estimates accrued depreciation caused by the passage of time and use of the building. Depreciation in the appraisal process is viewed as actually occurring as a result of physical deterioration, or wear and tear, functional obsolescence (diminished utility), and locational/economic obsolescence (i.e., value diminished by externalities). Physical and functional depreciation may be either curable or incurable, while locational or economic obsolescence is, by definition, always incurable. The test of curability is purely economic and relates to the principles of contribution and marginal productivity. An item of depreciation is curable if the cost to bring about the cure (i.e., repair or remediation) is less than, or equal to the incremental increase in value that will be credited or ascribed to the property in the marketplace. An item is incurable if the cost to cure is greater than the incremental increase in value, which may result from the capital expenditure. In other words, costs expended to cure items of accrued depreciation must be compensated by the marketplace by generating increasing returns, as measured by marginal gains in value. If the value increase is less than the cost to cure, the item of depreciation is incurable. The cost to cure negative externalities cannot be borne by any individual property, and must meet the test of curability. Curing negative externalities usually is a function of the public sector, which may be encouraged to do so by individual property owners/consumers. As a result of such actions, the remediation of negative externalities may have a cumulative effect on properties over time, and thus cure or at least mitigate some locational obsolescence.

Physical depreciation, or deterioration, occurs over time due to normal wear and tear inflicted on improvements by users and the forces of nature. Functional obsolescence occurs over time, but it is the result of changing consumer tastes and preferences and changes in technology, which affect construction methods and standards, as well as equipment, fixtures and amenities installed. Design standards which affect features such as floor plans and internal traffic patterns change in response to societal, demographic and economic trends. The degree to which existing improvements deviate from current market preferences for such standards is reflected in functional obsolescence.

The appraiser adds the depreciated value of buildings and site improvements to the estimated value of the site as if vacant, and puts it to its highest and best use to arrive at an indication of value by the cost approach. In many cases, depending on market conditions, this indication of value will be higher than the estimate derived from the direct sales comparison approach and also by the income approach, which is discussed next.

The **Income Approach** focuses on measuring the present worth of a flow of future benefits (expressed as income) which the owner expects to receive. Value estimates are derived by capitalizing or discounting a projected income stream at an interest rate which reflects how other market participants have discounted or valued income streams received from properties comparable to the subject. As its name implies, it is an approach best suited to valuing income producing properties. It is the approach which typically receives the greatest weight when conclusions regarding a reconciled final value for income producing real estate are considered.

Variants of the income approach include the Gross Income Multiplier (GIM) and Gross Rent Income Multiplier (GRM) approaches. The GIM approach is generally applicable in the valuation of large income properties, and focuses on the relationship between gross income received for a property and a multiple of this annual income which a buyer/investor actually paid. Although sometimes confused with the income approach, GIM focuses on gross annual income received, while in the income approach, the focus is on Net Operating Income (NOI). As such, the income approach not only considers the effect of market rents on value, but also the efficiency of management in a competitive market environment as reflected by operating expenses incurred. The GIM approach is more akin to a comparative sales approach to value, since it derives multiples based on what buyers were willing to spend for a flow of rental income, which reflect amenity values ascribed to the property by tenants irrespective of management and operational controls which directly influence profitability.

The Gross Rent Multiplier (GRM) approach is based on a similar premise, and is used in valuing single-family homes and small residential income properties such as duplexes, threeplexes or fourplexes. Instead of annual income, the GRM Approach considers the relationship between gross monthly rents and price. It, too, is a method more akin to a comparative sales approach for the same reasons stated above.

Steps in the income approach are also fairly straightforward. Since the focus is on market value, the appraiser must rely on market rents as a basis for forecasting a stream of income for the subject property. Market rents must be drawn from comparable properties and adjusted for deviations (i.e., location, quality, amenities, utility payment policy, etc.) in much the same fashion as the adjustment process for direct sales comparison and land valuation. For example, an appraisal of a small income producing property, such as a duplex or fourplex, would require the appraiser to extract current monthly market rents from a sample of properties considered comparable to the subject. Second, the appraiser would have to extract sales of comparable income producing to determine a market supportable GRM. This would be determined by dividing the verified sales price by the gross monthly rents collected at the time of sale. Several indications of such sales would be needed to drive an overall GRM for the market area/neighborhood relevant to the subject property. To arrive at an estimate of market value, the appraiser would multiply the estimated market rent for the property by the GRM.

**Reconciliation** is the final step in the appraisal process, and is perhaps the most important element of an appraisal. By definition, reconciliation is the process by which the appraiser evaluates, chooses, and selects from among alternative indications generated by each approach used to reach a single final value conclusion. The fact that it is defined as a process implies a systematic review of the entire appraisal process to identify mistakes, miscalculations or oversights that may affect the appraiser's final value conclusion. It is the process of asking questions regarding the accuracy of mathematical calculations, the appropriateness and applicability of the data used, and the consistency of the logic employed by the appraiser in applying the methodologies and underlying principles of real property valuation. It is not, and this should be stressed, a matter of simply averaging the two or three value indications derived into a single value conclusion. Averaging, aside from being illogical, violates the fundamental principles underlying the appraisal process and treats each value indication equally. If each value indication was weighted equally, the appraiser would be reaching the highly unlikely conclusion that everything used to arrive at these indications was equivalent in terms of both quantity and quality. Given the highly imperfect character of real estate markets, such a conclusion defies not only the laws of chance, but also basic common sense. The appraiser may, in fact, apply different weights or probabilities to each value indication, and then calculate a weighted average which is reconciled as a final value estimate. However, the

assignment of the weights is the result of reasoned judgment following careful review of the entire appraisal process. Anything other than this which passes itself off as reconciliation will result in useless and meaningless value conclusions. Almost anyone can be trained to do the mechanics of appraisal; reconciliation is learned through experience.