Chapter 1 PART ONE

The Nature of Real Estate *and* Real Estate Markets

Wealth is not without its advantages and the case to the contrary, although it has often been made, has never proved widely persuasive.

—John Kenneth Galbraith, *The Affluent Society*

LEARNING OBJECTIVES

After reading this chapter you will be able to:

1. Provide three alternative definitions for the term *real estate.*
2. Discuss the distribution of U.S. land among the various uses to which it is put (e.g., developed land, federal land, forest land).
3. Discuss the value and importance of U.S. real estate compared with the values of other asset classes such as stocks and bonds.
4. Describe the role real estate plays in the portfolios of U.S. households.
5. Discuss the primary ways that real estate markets are different from the markets for assets that trade in well-developed public markets.

OUTLINE

Introduction

Real estate is the single largest component of wealth in our society. Because of its magnitude, it plays a key role in shaping the economic condition of individuals, families, and firms. It can substantially influence a family's ability to finance its education, health care, and other important needs. Changes in the value of real estate can dramatically affect the wealth of businesses and their capacity to grow.

Similarly, real estate resources can greatly affect a community's ability to attract and support profitable business activities, as well as to provide secure, convenient, and

affordable living environments for its citizens. The adequacy of the housing stock, as well as the public infrastructure, including roads, bridges, dams, airports, schools, and parks, all affect the quality of life in a region.

Real estate has been estimated to represent approximately one-half of the world's total economic wealth.[1] In addition, it is often viewed as an important symbol of strength, stability, and independence. Consider, for example, the symbolic importance of structures such as Saint Peter's Basilica in Rome to the Roman Catholic Church or the buildings of the Forbidden City in Beijing to the Chinese people (see also Industry Issues 1-1). It is not surprising that real estate has been at the center of many regional disputes. It has been, and continues to be, a vital resource.

The prominence of real estate means that decisions about it also are important. For the individual, the firm, and the region, better decisions about the creation and use of real estate assets will bring greater productivity, greater wealth, and a better set of choices for life.

This book is about making informed decisions concerning real estate. We will show that virtually all decisions about the acquisition, disposition, or improvement of real estate depend on some assessment of the real estate's value. These decisions, which we refer to as investment decisions, involve comparing the resulting value of an action with its immediate cost. If the value exceeds the cost, the action should be pursued. The breadth and importance of these investment decisions in real estate are hard to overstate.

As a beginning, we first look at the different uses of the term *real estate.* This is followed by a discussion of land use in the United States and real estate's contribution to U.S. and household wealth. The chapter finishes with a discussion of the real estate market, its participants, and the characteristics that make real estate assets unique.

Real Estate: Some Basic Definitions

It is important at the outset that we define the term *real estate,* as well as some closely related terms used throughout this book. When people think of real estate, they often think of the homes in their community or the business of buying and selling houses. This is probably because the personal investment that most households make in their home represents their primary involvement in the real estate market. Of course, real estate includes not only our homes, but also our places of work, commerce, worship, government, education, recreation, and entertainment—our physical environments, natural and built. In addition, it includes a wide range of business and institutional activities associated with the development, purchase, use, and sale of land and buildings.

Real estate is property. The term **property** refers to anything that can be owned or possessed. Property can be a tangible asset or an intangible asset. **Tangible assets** are *physical* things, such as automobiles, clothing, land, or buildings. **Intangible assets** are *nonphysical* and include contractual rights (e.g., mortgage and lease agreements), financial claims (e.g., stocks and bonds), interests, patents, or trademarks.

The term *real estate* is used in three fundamental ways. First, its most common use is to identify the tangible assets of land and buildings. Second, it is used to denote the "bundle" of rights associated with the ownership and use of the physical assets. Finally, the term real estate may be used when referring to the industry or business activities related to the acquisition, operation, and disposition of the physical assets.

Real Estate: A Tangible Asset

When viewed purely as a tangible asset, **real estate** can be defined as the land and its permanent improvements. **Improvements *on* the land** include any fixed structures such as buildings, fences, walls, and decks. **Improvements *to* the land** include the components necessary to make the land suitable for building construction or other uses. These

1. Estimate by Ibbotson & Associates, 1991.

More than a dozen super-tall buildings have been completed in the last decade (see listing below). They are in cities such as Hong Kong and Shanghai in China and Dubai on the Arabian Peninsula. Currently, the world's tallest building—Burj Khalifa at 2,717 feet—is in Dubai, UAE. Tall structures are as old as civilization, from the Pyramids in Egypt to the cathedrals of medieval Europe. Historians attribute this phenomenon in part to religious and spiritual motives—the desire to build to the sky. In modern times, however, the motive has been largely economic. The skyscraper era began in the United States in the late 19th century when the technology of steel-framed construction and safe elevators made it possible. It started in Chicago, although New York evolved into the leading skyscraper city during the 20th century. However, only six of the world's 40 tallest building are now located in the United States.

Skyscrapers: A Shift in Development Trends

World's Tallest Buildings: 2012

2012 Rank	Building	City, Country	Height (feet)	Year Built
1	Burj Khalifa	Dubai, UAE	2,717	2010
2	Makkah Clock Royal Tower	Makkah, Saudi Arabia	1,972	2012
3	Taipei 101	Taipei, Taiwan	1,671	2004
4	Shanghai World Financial Center	Shanghai, China	1,614	2008
5	International Commerce Centre	Hong Kong, China	1,588	2010
6	Petronas Tower I	Kuala Lumpur, Malaysia	1,483	1998
7	Petronas Tower II	Kuala Lumpur, Malaysia	1,483	1998
8	Nanjing Greenland Financial Center	Nanjing, China	1,476	2009
9	Willis Tower	Chicago, US	1,450	1974
10	Ringrey Finance Tower	Shenzhen, China	1,449	2011
11	Guangzhou International Finance Center	Guangzhou, China	1,435	2010
12	Jin Mao Tower	Shanghai, China	1,381	1998
13	Trump International Hotel and Tower	Chicago, US	1,362	2009
14	Princess Tower	Dubai, UAE	1,358	2012
15	Two Int'l Fin. Ctr.	Hong Kong, China	1,352	2003
16	Al Hamra Tower	Kuwait City, Kuwait	1,352	2011
17	23 Marina	Dubai, UAE	1,296	2011
18	CITIC Plaza	Guangzhou, China	1,283	1997
19	Shun Hing Square	Shenzhen, China	1,260	1996
20	The Domain	Abu Dhabi, UAE	1,253	2012
21	Empire State Bldg.	New York City, US	1,250	1931

Note: The Twin Towers of the World Trade Center in New York were 1,368 feet high when they were destroyed in 2001.

The rising value of land in densely settled cities has been the economic incentive to build up rather than out. The shift of skyscraper development to the Far East, however, has been a reflection of other trends, especially that region's emergence onto the global economic scene. The region's spectacular buildings are symbols of pride among nations that see themselves with new roles in the 21st century. A return on investment is less of an impediment in nations not wedded to market economics, such as China.

Source: © Emporis 1/2012; www.emporis.com

improvements are often referred to as infrastructure and consist of the streets, walkways, storm water drainage systems, and other systems such as water, sewer, electric, and telephone utilities that may be required for land use. Subject to legal and practical limits, it should be noted that real estate includes not only the surface of the earth but also the area above and below the surface.

In practice the term **land** may include more than simply the earth; it may also include the improvements *to* the land. For example, the term *land* is often used to refer to a building site, or lot, and includes the infrastructure but not any structures. In contrast, land is also commonly used to refer to a larger area that does not include *any* improvements. This is sometimes identified as **raw land.** These distinctions become especially important when the value of land is considered.

Tangible assets include both real property and personal property. In professional practice and throughout this book, the terms **real property** and real estate are treated as interchangeable. **Personal property** refers to things that are movable and not permanently affixed to the land. For example, a motor home is personal property, while a custom "site-built" house is real property. A mobile home may be real or personal property, depending on how it is secured to the land and legally recognized by the jurisdiction (e.g., city, county, or state) in which it is located.

✓Concept Check

1.1 What distinguishes real property from personal property?

Real Estate: A Bundle of Rights

Although real estate is a tangible asset, it can also be viewed as a "bundle" of intangible rights associated with the ownership and use of the site and improvements. These rights are to the *services,* or benefits, that real estate provides its users. For example, real property provides owners with the rights to shelter, security, and privacy, as well as a location that facilitates business or residential activities. This concept of real property as a bundle of rights is extremely important to understanding real estate, and it is the subject of Chapter 2.

The bundle of property rights may be limited in numerous ways. It typically is reduced by land use restrictions (see Chapter 4). Also, the rights can be divided and distributed among multiple owners and nonowners. For example, an apartment owner divides his or her full interest in the property when he or she leases an apartment unit and grants to a tenant the right to occupy and control access to the unit. Similarly, the tenant may divide his or her interests by subleasing the apartment to another. As another example, an owner may purchase a property that has a utility access granted through a portion of the property. Thus, real estate can also be viewed as a bundle of rights inherent in the ownership of real property.

The value of a bundle of rights is a function of the property's physical, locational, and legal characteristics. The physical characteristics include the age, size, design, and construction quality of the structure, as well as the size, shape, and other natural features of the land. For residential property, the locational characteristics include convenience and access to places of employment, schools, shopping, health care facilities, and other places important to households. The location characteristics of commercial properties may involve visibility, access to customers, suppliers, and employees, or the availability of reliable data and communications infrastructure. The physical and location characteristics required to provide valuable real estate services vary significantly by property type.

✓Concept Check

1.2 What is the difference between tangible and intangible assets? Does the ownership of "real estate" involve tangible assets, intangible assets, or both?

One of the exciting things about pursuing a career in real estate is that many options are available. Career paths can accommodate white-collar executives working for corporations, banks, advisory firms, or in the mortgage industry; analytical personality types working in real estate appraisal or consulting jobs; salespeople working in brokerage, leasing, or property management; or entrepreneurs interested in developing new properties or renovating historical buildings. Career opportunities also exist in the public sector with employers like the Department of Housing and Urban Development (HUD), the General Service Administration (GSA), the Bureau of Reclamation, and numerous county property tax assessors, to name just a few.

As you familiarize yourself with the material presented in this book, the type of work associated with the job opportunities listed above will become increasingly clear. However, it is important that you begin to read some of the real estate articles that appear in newspapers, magazines, and journals. You should also begin searching for and bookmarking interesting real estate websites. To get started, we suggest you examine the career information available on the website of the University of Cincinnati's Real Estate Program (www.business.uc.edu/realestate/careerpaths). The National Association of Realtors also maintains an informative site on real estate careers (www.realtor.org/careers-at-nar). You should also visit www.real-jobs.com, where you can post your resume, search for real estate jobs, and read descriptions of available job opportunities—all free of charge.

Career Opportunities in Real Estate

Real Estate: An Industry and Profession

www.realtor.org

Website of the National Association of Realtors; provides information about brokerage as well as other real estate professions.

The term *real estate* frequently is also used to refer to the industry activities associated with evaluating, producing, acquiring, managing, and selling real property assets. Real estate professions vary widely and include (1) real estate brokerage, leasing, and property management services; (2) appraisal and consulting services; (3) site selection, acquisition, and property development; (4) construction; (5) mortgage finance and securitization; (6) corporate and institutional real estate investment; and (7) government activities such as planning, land use regulation, environmental protection, and taxation.

Real estate business opportunities in areas such as brokerage, leasing, appraisal, construction, and consulting often offer entrepreneurial-minded individuals the ability to observe and understand local real estate markets in addition to receiving above average compensation. These types of positions allow individuals the opportunity to have their fingers on the "pulse" of the market, often enabling them to directly participate in real estate investment activities.

Real estate professionals involved in a wide range of activities can be found in consulting firms, insurance companies, financial institutions, real estate investment firms, pension fund advisory firms, as well as non-real estate firms that use real estate in their business. Companies such as restaurant groups and retailers seeking to expand often require the services of "in-house" site acquisition analysts, construction managers, and facility managers.

Finally, the activities of state and federal government units, such as departments of transportation, commerce, planning, housing, and environmental protection, and local government agencies such as planning and property tax offices necessitate the employment of real estate research analysts and professionals.

Real Estate and the Economy

www.census.gov

Numerous construction statistics.

www.nahb.org

Website of the National Association of Home Builders; contains extensive information on the housing industry.

Real estate typically generates over 25 percent of U.S. gross domestic product (GDP), creates jobs for nearly 9 million Americans, and is the source of nearly 70 percent of local government revenues.[2] The total contribution of the housing sector alone averages 17 to 18 percent of GDP.[3] Because of the significant influence of real estate on the nation's

2. Statistics about the real estate industry, Real Estate Roundtable, www.rer.org.

3. The State of the Nation's Housing (Cambridge, MA: Joint Center for Housing Studies of Harvard University, 2011). www.jchs.harvard.edu.

economy, investors on Wall Street closely monitor real estate construction, construction permit activity, and real estate sales figures. Housing starts and sales are widely viewed as leading economic indicators.

Land Use in the United States

The United States represents about 6 percent of the Earth's land area, or approximately 2.3 billion acres (3.5 million square miles). To give a sense of scale to an acre, a football field, not including the end zone areas, is slightly more than one acre (1.1 acres). More precisely, an **acre** is defined as 43,560 square feet, or about 209 feet square; there are 640 acres in one square mile. The size of a single-family residential lot is typically between one-fifth and four-fifths of an acre.

It is estimated that the contiguous 48 states comprise 1.9 billion acres and that 71 percent of this acreage is in nonfederal, rural land uses. According to the 2007 National Resources Inventory Report, developed land represents approximately 6 percent of the land in the continental United States (see Exhibit 1-1). Developed land consists of residential, industrial, commercial, and institutional land uses, including roads, railways, rights-of-ways, construction sites, utility sites, sanitary landfills, and other land uses of similar purpose. Much of the undeveloped land in the United States is divided in approximately equal shares among water areas and federal lands (23 percent), cropland and Conservation Reserve Program (CRP) land (20 percent), rangeland (21 percent), and forestland (21 percent).[4] Pastureland and other rural land comprise 6 percent and 3 percent, respectively, of the 1.9 billion acres.

www.nrcs.usda.gov

U.S. Department of Agriculture resources include comprehensive information on trends for land use and development.

Overall, land use changes from 1982 to 2007 have been relatively minor. Most notable, however, is the increase of developed land from 73 million acres in 1982 to 111 million acres in 2007. Although only a small portion of the total land area in the United States, the amount of developed land has increased 52 percent since 1982.

Real Estate and U.S. Wealth

It is hard to overstate the size and variety of capital commitments to real estate. We estimate that the total market value of real estate was approximately $22.6 trillion in the third quarter of 2011. This estimate includes owner-occupied housing, investible commercial real estate, and land, but excludes real estate held by non-real estate corporations (such

Exhibit 1-1 Land Use and Land Use Changes in the United States

Land Use	1982 Land Use (mil. of acres)	% of total	2007 Land Use (mil. of acres)	% of total
Developed land	73	4	111	6
Water areas and federal land	448	23	453	23
Crop land	420	22	357	18
CRP land		0	33	2
Pasture land	131	7	119	6
Range land	416	21	409	21
Forest land	403	21	406	21
Other rural land	48	2	50	3
Totals	1,938	100	1,938	100

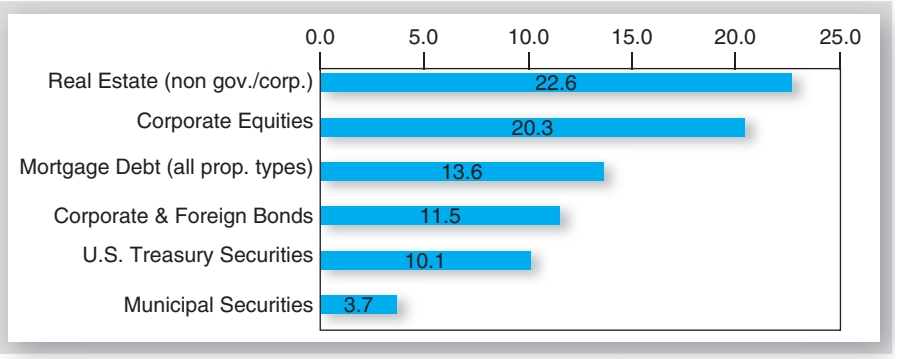
Source: U.S. Department of Agriculture, National Resources Inventory 2007 Annual NRI, www.nrcs.usda.gov/technical/NRI. Note that Alaska and Hawaii are not included in the tabulated figures.

4. CRP land is a federal program established under the Food Security Act of 1985 to assist private landowners in converting highly erodible cropland to vegetative cover.

www.bea.gov

U.S. Department of Commerce site contains vast amounts of national and international economic data.

Exhibit 1-2 Aggregate Market Values of Selected Asset Categories (in $Trillions)—2011Q3



Note: Real estate (nongovernment) includes developed land. It does not include farmland, water areas, and other rural lands. It also does not include real estate owned by non-real estate corporations.

Sources: Flow of Funds Accounts of the United States, Federal Reserve (December 2011, various tables). The value of nongovernment and noncorporate real estate is equal to the value of owner-occupied housing from the Fed Flow of Funds Accounts, plus the value of investible commercial real estate from Prudential Real Estate Investors, "The Case for Commercial Real Estate," March 2011.

as McDonald's and Ford) and real estate owned by various governmental agencies. Real estate constitutes the single largest asset class in the United States, as shown in Exhibit 1-2. In comparison, the total value of publicly traded corporate equities (i.e., stocks) in late 2011 was approximately $20.3 trillion; the value of outstanding real estate mortgage debt was approximately $13.6 trillion. This is larger than the value of both corporate and foreign bonds and the outstanding value of U.S. Treasury securities.

As reported by the U.S. Federal Reserve Board, housing represents the single largest asset category in the net worth portfolios of households (see Exhibit 1-3). On average, it represents approximately 23 percent of U.S. household wealth. This compares with household holdings of corporate stock and mutual fund shares of 17 percent. Housing's 23 percent share in the typical household's portfolio also dominates deposits and money market funds (11 percent), pension assets (18 percent), and equity invested in noncorporate businesses (10 percent). Moreover, the 23 percent housing share understates the importance of real estate for some households, because direct investments in private commercial real estate assets (e.g., apartments, office buildings) are not included as household assets in Exhibit 1-3. Finally, note that 72 percent of household liabilities are home mortgages.

By the third quarter of 2011, U.S. households had approximately $6.2 trillion in housing equity (market value minus mortgage debt). This represents, on average, about 39 percent of the value of their real estate and about 11 percent of their net worth. As a percentage of total household wealth, housing increased slightly during the early 2000s as corporate stock values declined. Although the stock market performed better during the 2003 to 2005 period, the housing sector continued to outperform stocks and bonds. This trend can be seen in Exhibit 1-4. However, in 2006 U.S. housing prices began a precipitous decline, which has reduced the value of housing assets as a percentage of total household assets to an average of 23 percent.

Real Estate Markets and Participants

www.federalreserve.gov

U.S. Federal Reserve System site contains extensive information on the U.S. banking system and economy.

In the United States and many other countries, market competition serves to distribute most resources (i.e., goods, services, and capital) among the various users. The market's forces of demand and supply interact within the economy to determine the price at which goods, capital, and services are exchanged and to whom they are allocated. Real estate resources are allocated among its various users—individuals, households, businesses, and institutions—in the

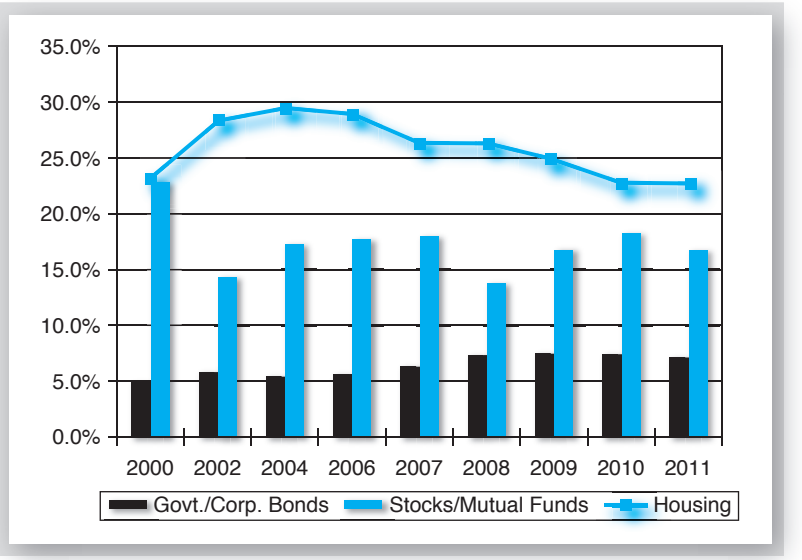
Exhibit 1-3 U.S. Household Wealth*

Asset/Liability Category	3rd Qtr. 2011 ($ in billions)	% of Total
Tangible assets		
Housing	$16,132	23
Consumer durables	4,743	7
Nonprofit tangible assets*	2,509	4
Financial assets		
Deposits & money market funds	8,029	11
Government & corporate bonds	4,994	7
Stocks & mutual fund shares	11,878	17
Pension assets (excluding stocks)	12,497	18
Other securities	2,976	4
Noncorporate business equity	7,364	10
Total assets	71,120	
Home mortgages (including lines of credit)	9,882	72
Other debt	3,884	28
Total liabilities	13,767	100
Net worth	$57,353	
Owner's equity in real estate	$ 6,250	
Owner's equity as a percent of housing and net worth	39%	11%

*This sector consists of individual households and nonprofit organizations. Nonprofits account for about 6 percent of the sector's financial assets.

Source: Flow of Funds Accounts of the United States, Federal Reserve (December 8, 2011, Table B.100 and L.100) www.federalreserve.gov.

Exhibit 1-4 Selected Household Assets as a Percentage of Total Assets



Source: Flow of Funds Accounts of the United States, Federal Reserve (Various Years, Table B.100).

✓Concept Check

1.3 According to Exhibit 1-3, U.S. households own $16.1 trillion in housing assets. Assume this amount does not include rental real estate. On average, what percent of the value of the U.S. housing stock is financed with home mortgage debt?

real estate market. Real estate values derive from the interaction of three different sectors, or markets, in the economy: local user markets (the "real world"), capital markets (the "financial world"), and property markets. A brief discussion of each of these sectors is presented below.

User, Capital, and Property Markets

Real estate **user markets** are characterized by competition among users for physical locations and space. As we will explain in Chapter 5, this competition determines who gains the use of each parcel of land and how much they must bid for its use. The primary participants in user markets are the potential occupants, both owner occupants and tenants, or renters. Ultimately, the demand for real estate derives from the need that these individuals, firms, and institutions have for convenient access to other locations, as well as for shelter to accommodate their activities. Based on the financial positions of households and firms and their wants and needs, they decide either to own and occupy property, or to lease property from others. About two-thirds of U.S. households own their home, and many businesses own their property, while most commercial real estate located in the central business districts of U.S. cities is leased.

www.bloomberg.com

Private firm that provides data on interest rates and bond yields.

The **capital markets** serve to allocate financial resources among households and firms requiring funds. Participants in the capital markets invest in stocks, bonds, mutual funds, private business enterprises, mortgage contracts, real estate, and other opportunities with the expectation of receiving a financial return on their investment. Funds flow from investors to the investment opportunities yielding the highest expected return (i.e., the greatest benefit), considering risk. Thus, real estate competes for scarce investment capital with a diverse menu of other investment opportunities available in the capital market.

The capital markets can be divided into two broad categories: equity interests and debt interests. We commonly view the equity participants as the "owners of the real estate." Equity investors in real estate expect to receive a return on their investment through the collection of rent and through price appreciation.[5] The debt participants, the "lenders," hold claims to the interest on borrowed funds that are secured by individuals, businesses, and property. The equity and debt interests can each be divided further into private and public market components. The primary participants in each of the four capital market categories—private equity, public equity, private debt, and public debt—are outlined in Exhibit 1-5. (The capital sources of real estate finance are discussed further in Chapters 11 and 17.)

Finally, **property markets** determine the required property-specific investment returns, property values, capitalization rates, and construction feasibility. The **Capitalization rate**, or the ratio of a property's annual net income to its value, is a fundamental pricing metric in commercial real estate markets.

✓Concept Check

1.4 Investible assets based on real estate are traded in each of the four capital market quadrants. List the four quadrants and at least one real estate asset that trades in each.

5. Investors who occupy their own properties "receive" the rent they would have paid to others had the property been leased from another investor. This is termed "implicit" rent.

1-2 INDUSTRY *ISSUES*

The Federal Reserve Board and Housing

The importance of real estate to the overall U.S. economy cannot be overstated. Many observers believe that the housing market led the United States into recession in the later 2000s and was the sector most responsible for the sluggish recovery that persisted for several years after the recession was officially declared over by the U.S. government.

In early 2012, almost six years after house prices turned downward, Federal Reserve Chairman Ben Bernanke called for new policies to help the nation's weak housing market, citing it as a significant factor holding back the economic recovery. "We need to continue to develop and implement policies that will help the housing sector get back on its feet," Bernanke said at a National Association of Homebuilders conference in Orlando, Fla. The Fed Chairman said the problems in the housing market—including sunken real estate values, depressed home construction, and barriers to mortgage refinancing—were hurting the economy.

"The state of the housing sector has been a key impediment to a faster recovery," Bernanke continued. That pressure wasn't likely to lift soon, as he predicted that the high rates of foreclosures were "likely to continue for a while," keeping down housing prices and putting a strain on communities.

Home prices have fallen by almost one-third over the 2007–2012 period. Nearly 1.9 million homes went into foreclosure in 2010–2011.

Bernanke's comments in 2012 were the latest of many from the central bank, calling for more action on housing. Last month, the Fed sent a paper to top lawmakers warning that tight mortgage lending standards threatened to hold back the economy. Bernanke said the central bank was "intensely focused" on improving credit conditions. While some tightening of credit was to be expected in the wake of the financial crisis, "the pendulum has probably swung too far in the other direction by this time," he said.

Source: Adapted from Kristina Peterson and Jeffrey Sparshott, "New Fed Call on Housing," *The Wall Street Journal*, February 11, 2012.

Exhibit 1-5 The Four Quadrants of Real Estate Capital Market Participants for Income Property

	Private Markets	Public Markets
Equity/owners	Individuals, partnerships, limited liability corporations, private equity funds, hedge funds	Publicly traded real estate investment trusts (REITs) and real estate companies
Debt/lenders	Banks, thrifts, insurance companies, finance companies, private lenders	Commercial mortgage-backed securities (CMBS) and mortgage REITs

The Role of Government

Government affects real estate markets, and therefore values, in a host of ways. Local government has perhaps the largest influence on real estate. It affects the supply and cost of real estate through zoning codes and other land use regulations, fees on new land development, and building codes that restrict methods of construction. Further, local government affects rental rates in user markets through property taxes. Finally, it profoundly affects the supply and quality of real estate by its provision of roads, bridges, mass transit, utilities, flood control, schools, social services, and other infrastructure of the community. (The influence of local government on real estate values through land use controls, property tax policy, and services is expanded upon in Chapter 4.)

State government has perhaps the least effect on real estate values, although it still is important. Through licensing of professionals and agents, states constrain entry into real estate–related occupations. (See Chapter 12.) Through statewide building codes, they can affect building design and cost. Through disclosure laws and fair housing laws, states affect the operation of housing markets. In addition, states typically set the basic framework of requirements for local government land use controls, and even intervene in the realm of land use controls for special purposes such as protection of environmentally sensitive

lands. Finally, states affect the provision of public services important to a community, including schools, transportation systems, social services, law enforcement, and others.

www.uli.org

The Urban Land Institute is an influential U.S. organization for those engaged in development and land use planning.

The national government influences real estate in many ways. Income tax policy can greatly affect the value of real estate and therefore the incentive to invest in it. (The extensive effect of income taxes on real estate value is detailed in Chapter 20.) Housing subsidy programs can have enormous effects on the level and type of housing construction. Federal flood insurance programs can influence development in coastal and wetlands regions. Federal financial reporting and disclosure requirements, and government-related financial agencies such as the Federal Reserve System and the Federal Deposit Insurance Corporation (FDIC) all have profound effects on the operation of the real estate capital markets. (See Chapter 11 for details of the government's role in mortgage markets.) Further, consumer protection laws affect few aspects of household activity more than they impact housing purchases and financing. (See Chapters 9 and 13.) In addition, laws protecting the environment and endangered species have significantly affected the use of real estate. Finally, national fair housing laws and other civil rights legislation are very important influences on housing markets.

The Interaction of Three Value-Determining Sectors

The interaction of the three value-determining sectors is illustrated in Exhibit 1-6. In local user markets, households and firms compete for the currently available supply of locations and space (left-hand side of Exhibit 1-6). This competition for space, coupled with the existing supply of leasable space, determines current rental rates (let's call this a space market equilibrium) and the expected cash flows (net operating incomes) of a property. The riskiness of the expected cash flows depends on the degree of uncertainty about future space demand, future space supply, and the resulting future space market equilibriums.[6] Capital markets provide the financial resources necessary for the development and acquisition of real estate assets (right-hand side of Exhibit 1-6). Within the capital markets, the returns investors require for a broad range of available investment opportunities, including real estate, are determined. Required investment returns equal the risk-free rate in the economy (i.e., the return available on a Treasury security), plus a risk premium that reflects how reliable or uncertain the forecasted net operating incomes are. Finally, in the interaction between user and capital markets, the expected stream of rental operating income for a particular property is capitalized into value through "discounting," which is the process of converting expected future cash flows into present value. Discounting incorporates the opportunity cost of waiting for the uncertain cash flows (center panel of Exhibit 1-6). (Discounting is the subject of Chapter 14.) Each market participant bids for properties based on his or her individual assessment of value. The prices current owners are willing to accept reflect each seller's assessment of value. This continuous bidding process determines market values and transaction prices in local property markets. As noted above, government influences on this value-determining process are numerous, ranging from local government land use controls and property taxes to federal government income tax policy.

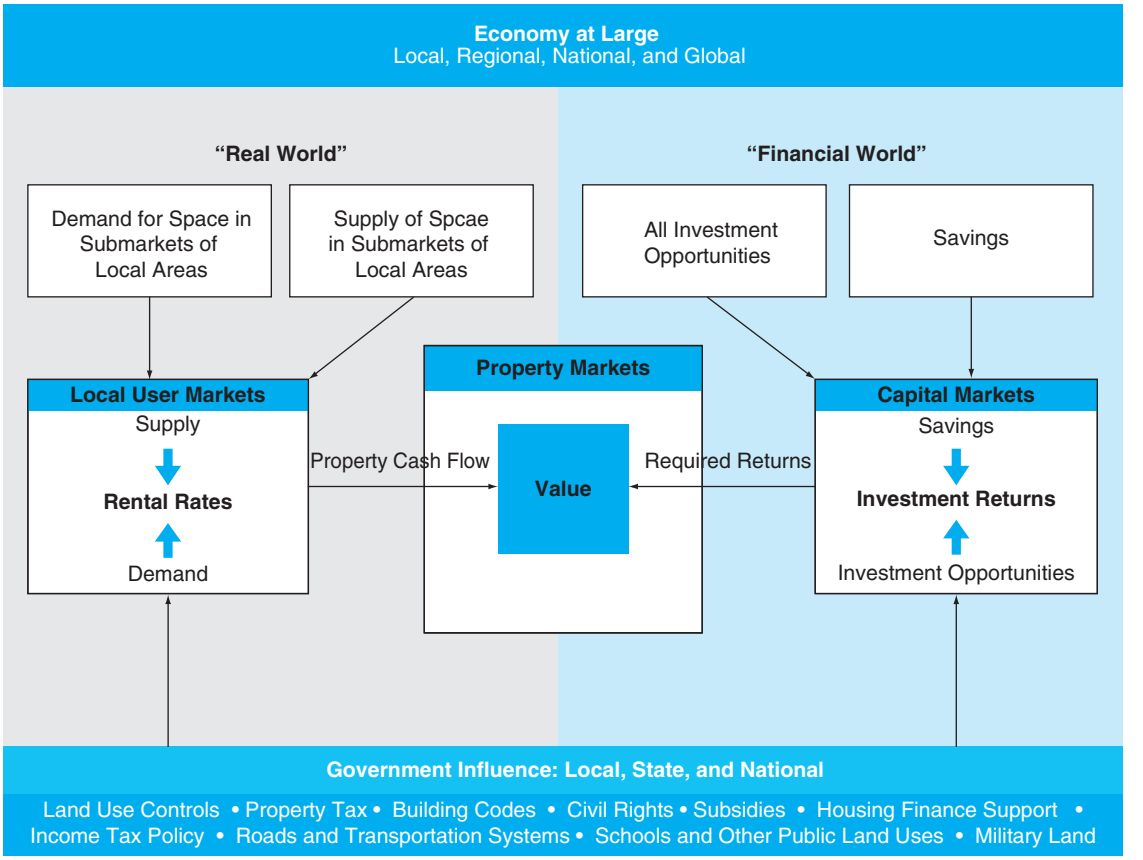
Our view is that sound decision making requires an understanding of how real estate values in local property markets are determined. Thus, value is the unifying theme of this book. This allows for an integrated framework for the study of real estate because all of the concepts and principles discussed in this text—such as legal considerations, local market conditions, interest rates, and local land use controls and regulations—are important primarily in the context of how they affect real estate values.

The Production of Real Estate Assets

If rental rates and their riskiness are determined in the space market, and required risk premiums are largely determined in the general capital markets, what role do local property

6. This applies to owner-occupied residences as well as to actual rental property. For an owner-occupied residence, the rent is the value of the housing services the household enjoys rather than dollars. It sometimes is referred to as implicit rent.

Exhibit 1-6 User Markets, Capital Markets, and Property Markets



(asset) markets play? First, property markets allocate available property investments among competing investors. Second, local property markets determine the pace of new construction. A primary determinant of the feasibility of new construction is the relationship between the current level of property prices and the cost of new construction. If current property values are greater than the cost of new construction—including land costs and a fair developer profit—developers and investors have an incentive to add new construction to the existing stock in an attempt to capture excess profits. Ultimately, the expansion of supply causes rents in the space market (and therefore values in the property market) to decrease toward the level of current construction costs.

If current property values are below construction costs, as in an overbuilt market, a combination of reduced construction, normal growth in demand for space, and steady obsolescence of the existing stock are required to push market rents and property values to their required levels. Only then will developers find new projects profitable once more.

Real estate construction historically has been a volatile process because real estate prices and costs tend to be volatile. Thus, building booms and slumps often characterize real estate production, as discussed in Chapter 6. To compound the volatility further, real estate values also can be affected by shocks to the capital markets. For example, if interest rates rise, property values will generally fall, again rendering construction less profitable. Finally, construction costs can be very volatile. Organized labor disputes in cities such as New York or Boston, or unexpected events causing shortages in lumber, steel, or other building materials, can severely damage the financial viability of both small and large real estate development. In fact, rapidly rising construction costs have been a significant issue in many real estate markets in recent years. (Real estate development is treated further in Chapter 23.)

✓ **Concept Check**

1.5 In what market are rental rates for commercial real estate assets determined? In what market are property values determined?

Characteristics of Real Estate Markets

Real estate assets and markets are unique when compared to other goods. The two primary characteristics of real estate assets are their heterogeneity and immobility. Because of these two factors, the market for buying, selling, and leasing real estate tends to be illiquid, localized and highly segmented, with privately negotiated transactions and high transaction costs.

www.marshallswift.com

Private firm that tracks construction costs.

Heterogeneous Products

Real estate tends to be heterogeneous, meaning that each property has unique features. An example of a relatively homogeneous product is gasoline. Although it is possible to purchase different grades of gasoline (e.g., octane levels), a gallon of gasoline received from a particular pump cannot be distinguished from the next gallon.

For real estate, however, age, building design, and especially location combine to give each property distinctive characteristics. Even in residential neighborhoods with very similar houses, the locations differ. Corner lots have different locational features than interior lots; their access to parks and transportation routes may differ, and the traffic patterns within the neighborhood create differences. The most influential site and structural attributes of a home are typically observable and amenable to valuation (e.g., pools, bedrooms, and garages). However, information about a property's location attributes is much more difficult to observe and value because numerous external effects (positive and negative) act upon a land parcel at a given location, and these effects are reflected in the parcel's value. Said differently, each parcel of land has a unique location-value signature (LVS) and differences in LVSs create variation in property values.[7] Locational differences are particularly critical for retail properties. Drastic value differences may result between retail properties on different sides of the same street, depending on whether the property is on the "going-home" or the "going-to-work" side. Most food outlets, drugstores, clothing stores, and service centers prefer to be on the going-home side of the street. Even within a single shopping center, there are important differences in location for a retail establishment depending on the need of the establishment for exposure to shoppers.

Immobile Products

Real estate is immobile. Although it is sometimes physically possible to move a building from one location to another, this is generally not financially feasible. The vast majority of structures removed from the land are demolished rather than moved.

Another term for location is access. For households it is access to school, shopping, entertainment, and places of employment. For commercial properties it may be access to customers, the labor force, or suppliers. The nuances of access are fundamental to real estate value, as we discuss in Chapter 5.

Localized Markets

Real estate markets tend to be localized. By this we mean that the potential users of a property, and competing sites, generally lie within a short distance of each other. For

7. The term *location-value signature* is attributable to "Modeling Spatial Variation in House Prices: A Variable Interaction Approach." Timothy J. Fik, David C. Ling, and Gordon F. Mulligan, *Real Estate Economics,* vol. 31, no. 4, 2004.

example, competing apartment properties may lie within 15 minutes, or less, in driving time from each other, while competing properties of single-family residences may tend to be within a single elementary school district or even within a small number of similar subdivisions. Clearly, the market for a neighborhood shopping center is very localized. Such centers usually draw the majority of their customers from within a five-mile radius, or less. For a parent looking for a gallon of milk, a convenience store 15 minutes away is not a good substitute for the convenience store up the street. Users of other commercial property types may be more "footloose"—that is, they do not depend so heavily on access to a particular location. Thus, some commercial property users may search a wide range of alternative markets within a single metropolitan area or even among different metropolitan areas.

Segmented Markets

www.prea.org

Pension Real Estate Association.

Real estate markets tend to be highly segmented due to the heterogeneous nature of the products. Households that search for single-family detached units in the market will generally not consider other residential product types such as an attached townhouse unit or condominium. In addition, real estate is segmented by product price. The same holds true, although to a lesser extent, in the commercial property market. Commercial property markets are segmented by both users and investors. Larger, more valuable commercial properties, generally well over $10 million, are often referred to as **investment-grade properties** or **institutional-grade real estate.** This is the segment of the property market targeted by institutional investors such as pension funds, publicly traded real estate companies, and real estate funds. Individual private investors typically do not compete directly with institutional investors for properties.

The localized nature of real estate markets also contributes to segmentation and explains why rents and prices for otherwise similar property can vary significantly across metropolitan markets and even submarkets within a given metropolitan area.

Privately Negotiated Transactions with High Transaction Costs

www.costar.com

www.loopnet.com

Private firms with information on a large number of commercial properties for sale.

A final distinctive feature of real estate is the complexity of property and transactions. As we discuss in Chapter 2, real estate is a uniquely complex "bundle of rights." The property interest to be conveyed cannot be standardized and therefore must be carefully assessed to determine what rights it actually contains. Further, because real estate has a history of ownership, the current claims of ownership must be confirmed by examining the past history of the property. Finally, property parcels are contiguous, so the problem of accurate description requires unique and elaborate systems of delineation. All these special issues in real estate are sufficient to compel unique laws, institutions, and procedures for the conveyance of real estate. Moreover, real estate agents, mortgage lenders, attorneys, appraisers, property inspectors, and others are usually involved in the transaction. The negotiation process between buyers and sellers can be lengthy, and the final transaction price and other important details such as lease terms are not usually observable. Thus, in almost every transaction involving real estate, there are time requirements and costs not present in most non-real estate transactions. These special challenges in virtually any transaction involving real estate can affect real estate values and risks and must be recognized by investors.

www.realtor.com

Website of the National Association of Realtors' contains listings on millions of homes and rental properties for sale.

One final note on the uniqueness of real estate: Investors and lenders seem to get into trouble most commonly when they lose sight of these unique characteristics of real estate. The latest, graphic example of this is the recent sub-prime meltdown. The creation and dissemination of sub-prime mortgage securities became detached from any thoughtful assessment of the underlying borrowers, housing values, or market depth. More attention seems to have gone to hedging default risk (and assigning it to others) rather than preventing it.

✓Concept Check

1.6 Identify four ways in which real estate markets differ from the market for publicly traded stocks.

Summary

We began this chapter by looking at the different uses of the term *real estate.* This was followed by a discussion of land use in the United States and the contribution of real estate to U.S. and household wealth, and then a discussion of the real estate market.

The term *real estate* is used in three fundamental ways: (1) to identify the tangible assets of land and buildings; (2) to denote the "bundle" of rights associated with the ownership and use of the physical assets; and (3) to refer to the industry, or business activities, related to the acquisition, operation, and disposition of the physical assets. Viewed as a tangible asset, real estate constitutes the physical components of location and space. In this context, real estate is defined as the land and any built improvements permanently affixed on, or to, the land. The bundle of intangible rights, or interests, associated with the ownership and use of the physical characteristics of space and location constitutes the services that real estate provides to its users. It is the services/benefits that result from the use of the property that create value. Said differently, tracts of dirt do not have any intrinsic value. It is the uses to which the dirt can be put that create value.

Real estate typically generates over 25 percent of U.S. gross domestic product (GDP), creates jobs for nearly 9 million Americans, and is the source of nearly 70 percent of local government revenues. The total contribution of the housing sector alone approaches 20 percent of GDP. Real estate construction, construction permit activity, and real estate sales figures are closely watched by investors on Wall Street because of the effect real estate has on the nation's economy. Real estate also represents a significant share of our accumulated national wealth. The total value of owner-occupied housing and investible commercial real estate in the United States is estimated to be $22.6 trillion. Approximately $16 trillion of this represents the value of owner-occupied housing. Housing alone represents approximately 23 percent of U.S. household wealth and is the single largest asset category of households.

Real estate market activity is influenced by the activities and conditions that take place in three sectors of a market economy: (1) the user market, (2) the financial or capital market, and (3) the government sector. Real estate users compete in the market for location and space. Among the users are both renters and owners. The financial resources to acquire real estate assets are allocated in the capital market; hence, the equity (ownership) and debt investors are capital market participants. Government influences the activities of each of the participant groups through regulations, provisions of services and infrastructure, taxes, and various subsidies.

Two primary characteristics of real estate assets distinguish them from others: heterogeneity and immobility. Because of these two factors, the market for evaluating, producing, buying, selling, leasing, and managing real estate tends to be illiquid, localized, and highly segmented, and it involves privately negotiated transactions with relatively high transaction costs.

Key Terms

Test Problems

Answer the following multiple choice problems:

1. A market where tenants negotiate rent and other terms with property owners or their managers is referred to as a:
   a. Property market.
   b. User market.
   c. Housing market.
   d. Capital market.
2. The market in which required rates of return on available investment opportunities are determined is referred to as the:
   a. Property market.
   b. User market.
   c. Housing market.
   d. Capital market.
3. The actions of local, state, and federal governments affect real estate values:
   a. Primarily through user markets.
   b. Primarily through the capital market.
   c. Primarily through their taxation policies.
   d. Through all of the above.
4. What portion of households owns their house?
   a. Approximately one-third.
   b. Approximately two-thirds.
   c. Approximately one-half.
   d. Approximately one-quarter.
5. Of the following asset categories, which has the greatest aggregate market value?
   a. Corporate equities.
   b. Mortgage debt.
   c. Government debt.
   d. Nongovernment real estate.
6. Storm water drainage systems are best described as:
   a. Tangible assets.
   b. Improvements to the land.
   c. Intangible assets.
   d. Improvements on the land.
7. What is the single largest asset category in the portfolio of a typical U.S. household?
   a. Housing.
   b. Consumer durables.
   c. Stocks.
   d. Bonds.
8. Real estate markets differ from other asset classes by having all of the following characteristics except:
   a. Local market.
   b. High transaction costs.
   c. Segmented market.
   d. Homogeneous product.
9. Which of the following is *not* important to the location of commercial properties?
   a. Access to customers.
   b. Visibility.
   c. Access to schools.
   d. Availability of communications infrastructure.
10. Which of the following attributes of a home are the most difficult to observe and value?
   a. Land/site attributes.
   b. Structural attributes.
   c. Location attributes
   d. Financing attributes.

Study Questions

1. The term *real estate* can be used in three fundamental ways. List these three alternative uses or definitions.
2. The United States represents about 6 percent of the Earth's land surface, or approximately 2.3 billion acres. Who owns this land? What is the distribution of this land among the various uses (e.g., developed land, federal land, forestland)?
3. Describe the value of U.S. real estate by comparing it to the values of other asset classes (e.g., stocks, bonds).
4. How much of the wealth of a typical U.S. household is tied up in housing? How does this compare to the role that assets and investments play in the portfolios of U.S. households?
5. Real estate assets and markets are unique when compared with other assets or markets. Discuss the primary ways that real estate markets are different from the markets for other assets that trade in well-developed public markets.
6. Explain the role of government in real estate at the federal, state, and local level. Which has the most significant impact on real estate markets?
7. Identify and describe the interaction of the three economic sectors that affect real estate value.
8. Real estate construction is a volatile process determined by the interaction of the user, capital, and property markets. What signals do real estate producers (i.e., developers) use to manage this process? What other factors affect the volatility of real estate production?

Solutions to Concept Checks

1. A major determinant between real and personal property is whether or not the property is movable or permanently affixed to the land.
2. Tangible assets are physical assets such as land, automobiles, and buildings. Intangible assets are nonphysical, including patents, financial claims, or contractual agreements. Real estate is a tangible asset, but a bundle of intangible rights is also associated with the ownership and use of the property.
3. About 61 percent of the U.S. housing stock is financed with home mortgage debt. ($9.8 trillion in mortgage debt divided by $16.1 trillion in housing value.)
4. The four capital market quadrants include private equity, private debt, public equity, and public debt. The private equity market includes transactions of real property between individuals, firms, and institutions. Private debt includes the trading of home mortgages. Investors trade real estate companies such as equity REITs in the public equity

market. Mortgage-backed securities are traded in the public debt markets.

5. Commercial real estate rental rates are determined in local user markets, while property values are determined largely in the property market.
6. First, real estate is a heterogeneous product distinguished by its age, building design, and location. Second, real estate is immobile, and therefore location and its accessibility are important. Third, real estate is a localized, segmented market due to local competition and the heterogeneous nature of the product. Finally, real estate transactions have high transfer costs, and deals are privately negotiated.

EXPLORE THE WEB

The government affects real estate in many ways. At the federal level, many housing programs exist. Go to the Department of Housing and Urban Development's website, www.hud.gov, click on the "Topic Areas" tab at the top of the page, and explore the resources available to households looking to avoid foreclose, buy a home, make home improvements, and obtain rental assistance, to name a few.

Additional Readings

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