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By Jack C. Harris

Cycles are common throughout the economy, not just in real estate. Individual industries, and sometimes the entire national economy, tend to swing from periods of expanded production to periods of decreased production. From a real estate perspective, if the local economy is booming, demand for developed space will increase. Likewise, when recession hits, space markets suffer. Understanding what drives the ups and downs of the real estate cycle can prove valuable to investors and others seeking to profit from real estate markets.

Over a period of many years, real estate markets experience periods of excess demand ("hot" markets or *seller's markets*), invariably followed by periods of excess supply ("slow" markets or *buyer's markets*). These swings define a market cycle.

The cyclic pattern is caused by the market's tendency to self-correct. When demand suddenly exceeds supply, prices rise. Higher prices both decrease demand and spur new construction, allowing supply and demand to balance. Economists refer to this state as *equilibrium*.

If new supply could be produced or withdrawn instantaneously, the market would always be in equilibrium, and there would be no cycle. But in reality, a considerable lag exists between the time a need for more housing or office space is identified and the time new space becomes available. This lag creates the cycle.

Consider what happens when a local industry expands. People are attracted to the area from other parts of the country. Current residents sometimes get higher-paying jobs and can afford to buy bigger houses. Demand for housing increases, vacancy rates fall and rental rates and home prices increase, disrupting the balance of supply and demand. It takes time for developers to recognize and respond to the increased housing demand, and even more time to plan, finance, approve and complete new projects. This is the *expansion phase* of the cycle.

New supply eventually catches up with and then surpasses demand. Psychology plays a role in this overcorrection because

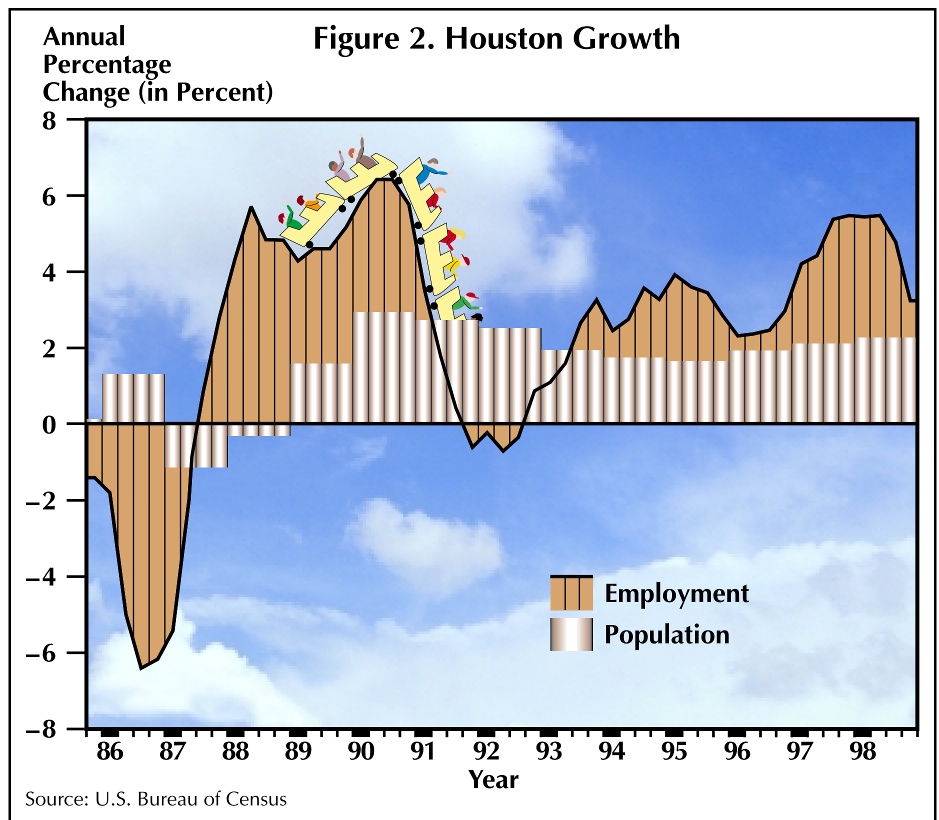
market expansions typically reward risk takers, increasing developers' tendencies to overestimate potential demand. This *oversupply phase* brings the market back to equilibrium.

If new supply continues to come into the market after demand has begun to diminish, the cycle may enter a *recession phase*, driving down prices, rents and occupancy rates. The bottom of the cycle occurs when construction slows to the point that demand can begin to absorb the excess space. Absorption occurs during a *recovery phase* that brings the market back into balance.

This description of a housing market cycle is deceptively simple. In actuality, cycles are hard to detect for a number of reasons.

- Inflation may distort cyclical patterns for any indicator measured in dollars.
- Seasonal variation may make it difficult to see longer-term cycles.
- Conditions can change before the cycle is complete, superimposing new cycles on one another, reinforcing or countering the original change.

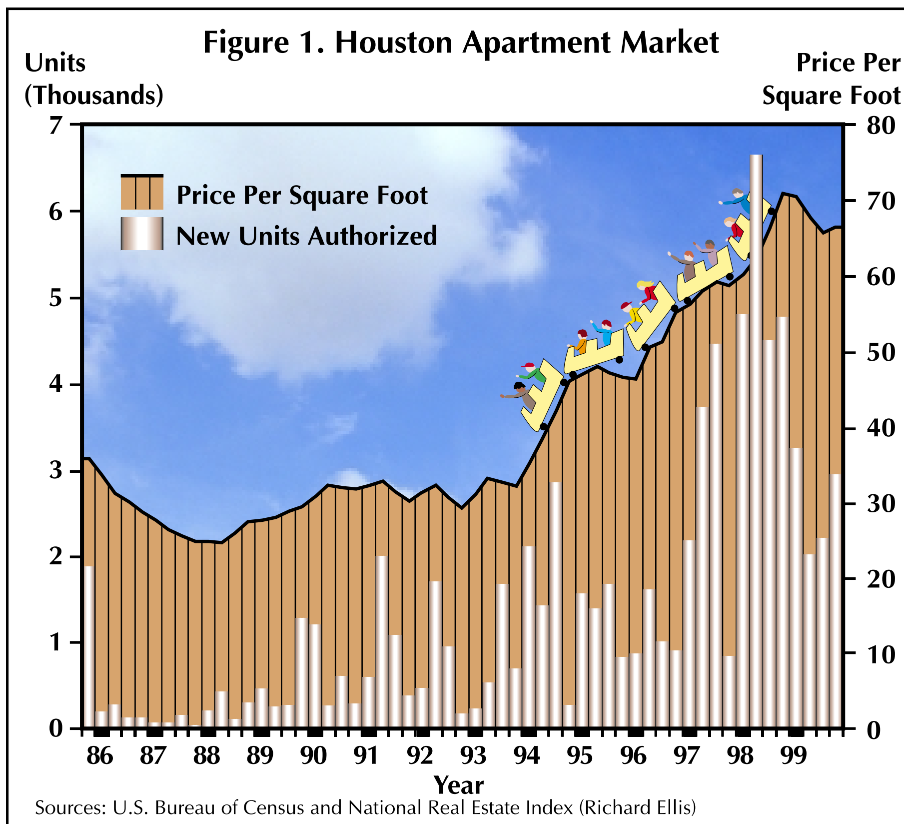
If cycles are inconsistent and unpredictable, why are they important? The answer is simple. Without knowledge of cycles, it is impossible to understand market changes. And understanding market changes helps real estate developers and investors adapt and find profitable strategies.



A Real-world Example

Houston's apartment market from 1985 to 1999 provides a classic example of a real estate cycle (Figure 1). The cycle begins at the end of a recession phase that pushed the price per square foot of apartments to less than $25 in mid-1988. Rents had struck bottom ($5.61 per square foot) a year earlier. The collapse of oil prices sent the Houston economy into a recession in 1986, and population growth was negative for the next two years. Fewer than 500 new units were authorized in 1987 because of high vacancies and the elimination of significant tax incentives for real estate investors following the Tax Reform Act of 1986.

Employment climbed sharply in 1988, bringing a return to positive population growth in succeeding years (Figure 2) and kicking off a modest recovery phase in 1990. Before the cycle could progress, however, it hit a bump in the road in the form of the late 1991 national recession. Instead of setting off a full-fledged new cycle, the downturn in economic growth (population was still growing by more than 2 percent per year) merely deferred the recovery until the mid-1990s. Why did the recession not kick off a new down cycle? The employment dip was relatively short and shallow. Population continued to grow. And, while construction had picked up, it still was slow compared to the levels of the last boom period in 1983.



Consequently, prices slid only slightly, going from a high near $33 in mid-1991 to around $29 at the end of 1992. When prosperity returned, a long and vigorous recovery ensued. Prices rose sharply and reached $71 at the end of 1998. The peak was accompanied by a significant increase in construction, with permits reaching an annual pace of 20,000 units in 1998. Prices softened during 1999 as slowing employment growth compounded the impact of this big infusion of new apartments on the market. Data suggest the cycle may have entered an oversupply phase in late 1999.

What Does This Mean?

Without question, applying cycle theory to real estate decision making is fraught with

problems. Obtaining dependable and timely data on the market is often difficult. Detecting turning points in the cycle is not easy even with detailed, accurate data. Phases of a cycle are not consistent in length, making it difficult to predict when a new phase will begin. Overall market cycles may not influence the performance of individual properties.

Even so, there are distinct advantages to "thinking cyclically."

- Market participants who do not follow cycles tend to project current trends indefinitely into the future, leading to development and investment strategies that prove inappropriate when the trend inevitably turns.
- Those who understand cycles view market booms with caution and search for opportunities in down markets. They tend to resist excess optimism at the top of cycles and pessimism at the bottom of cycles.
- Those who study cycles view market change as normal, rather than as a sign that something is wrong. Furthermore, they have a better understanding of why market conditions are changing.

In short, cycle theory is not particularly useful as a method of forecasting where the market will be at some point in the future, but it can help developers and investors understand the current market and what types of changes may be imminent.

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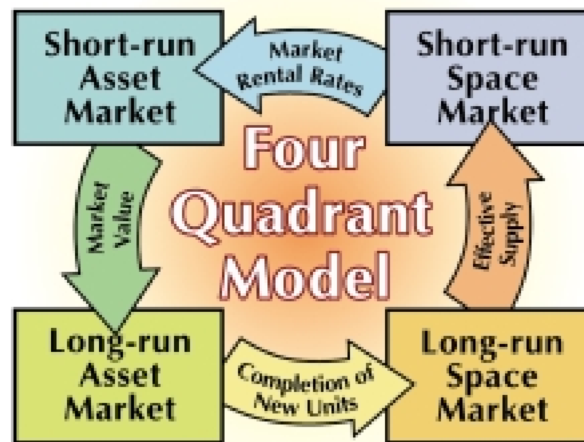
Physical and Asset Markets

Differences between the demand for space and the demand for properties are a source of confusion when analyzing real estate markets. This is because, in most cases, the user of the space is not the property owner.

One good way to sort this out is to use the four-quadrant model. This model recognizes there are actually two interrelated real estate markets: a space market and an asset market. The *space market* is where tenants contract for the use of developed space. The *asset market* is where investors purchase land, buildings and related interests.

Each market can be separated into a short- and long-run phase. Supply is constant in the short range, so decisions about construction are confined to the long-range side. Whenever something changes in one of the sectors (for example, when there is a rise in demand for space), the change must ripple through all the sectors before equilibrium can be re-established. Delays are introduced, inertia is reinforced and outside cyclical influences are introduced as the market responds. Consider how each part of the market operates.



Short-run space market. This is where supply, which is fixed in the short term, and demand for space interact. It is also where market rental rates are determined. Equilibrium is established when occupancy is at its "natural" rate, which can vary by how active and diverse the demand for space actually is. When the actual occupancy rate is lower, rents fall; higher occupancy rates prompt rent increases. The business cycle and how space is used affect demand.

Short-run asset market. Market rental rates support investors' expectations of future net operating income from real property assets. This expected income is *capitalized* into property values. Real estate capitalization rates are affected by a number of economic conditions, including inflation cycles, which affect the amount of appreciation real property investors can expect, and interest rate and stock market cycles, which affect capitalization rates through changes in required investment yields.

Long-run asset market. In the long-run asset sector of the market, decisions are made that impact supply. Property values are translated into construction of new units. When existing property values rise to the point that new units can be produced profitably and when the value of existing buildings rises to more than the cost of replacement, construction begins to occur.

Development costs determine this property value threshold. Changes in government regulations and construction costs, including interest rates, affect the point at which construction is triggered. Both regulation and costs show some cyclical variation. Governments, for example, tend to apply stringent controls after market peaks while offering development incentives during recovery periods, reinforcing the real estate market cycle.

Long-run space market. In this quadrant of the market, decisions are made concerning maintenance, remodeling and demolition of existing buildings. While construction is adding new space to the supply, the forces of depreciation and attrition reduce the effective supply of space in the market. Long-range cycles of area prosperity or blight and the condition of the property influence decisions to invest money in maintenance or demolish the property.

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