FOCUS ON REAL ESTATE

Investing in Residential Real Estate in the United States of America

BY RICHARD A. HANSON, CRE

This article is developed from CRE Richard A. Hanson's presentation made at MIPIM in March 2008. The presentation addresses U.S. real estate development patterns and investment in view of current market challenges, global energy consumption and population growth.

AN INDUSTRY IN CRISIS: OPPORTUNITY OR RISK?

There are many factors which compel real estate professionals to use caution when investing in the residential sector in the United States. Today, the U.S. housing industry is in crisis. Land value, homeowners, construction workers, investors, banks, school districts, and appraisers: all have been adversely affected by the declining real estate market. The municipalities that depend upon jobs, home values and tax revenue linked to U.S. housing are now confronting deficits, budget shortfalls and social deterioration.

The crash of the U.S. housing market (Figure 1) and the subsequent drop in home prices are affecting the U.S. economy. The crisis and its causes are complex but can be summarized as a drop in buyer confidence, followed by an increase in foreclosures—much of it the result of unbridled lending and imprudent borrowing. Exactly when we will return to a time of normalcy and confidence in the real estate market isn't known, but it is unlikely to be any time soon. Real estate's importance to the U.S. economy is profound: homebuilding is a major source of employment in America.

REASONS FOR HOPE FOR THE U.S. HOUSING MARKET/INVESTMENT

News reports regarding markets for U.S. housing are negative and grim today. The media provide little confidence for potential investors in housing stocks or related financial instruments. Yet there are indicators that the weakened perception of U.S. residential markets may be more psychological than technically true.

GROWING NEED FOR HOUSING IN THE UNITED STATES

The U.S. population is growing at its fastest pace in 40 years. This is the result of both high fertility rates (births) and immigration. Immigration rates remain consistent, and the U.S. birth rate is boosted by newcomers who are having larger families.

Despite the current bad news and slowdown in U.S. real estate market absorption, the U.S. population is expected to increase by 130 million by 2050 (Figure 2). Such a rise in population growth will create an enormous demand for

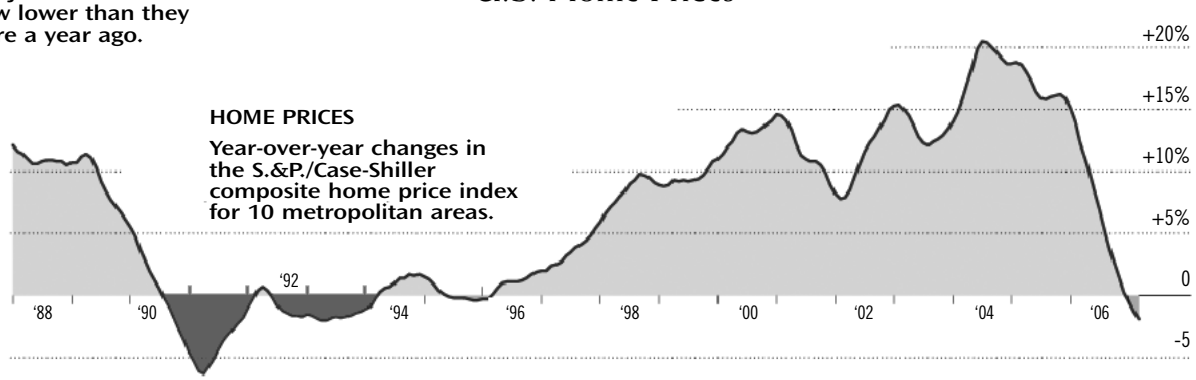
About the Author

Richard A. Hanson, CRE, 2008 *Chair of* **The Counselors of Real Estate**, *is a principal in Mesa Development, LLC, a Chicago-based real estate development firm that specializes in commercial, retail and residential project development. His extensive industry experience and current leadership in national real estate organizations bring both a broad perspective and a keen focus to developing strategies and services for the full cycle of clients' real estate usage. In his career, Hanson has been at the forefront of commercial development, real estate finance and taxation consulting, corporate advisory services, budgeting and economic incentive procurement. Today at Mesa Development, he invests and directs his firm's development activities in land, residential and commercial development.*

Figure 1

U.S. Home Prices

Home prices in the United States peaked last June and are now lower than they were a year ago.



Source: S&P/Case-Shiller, New York Times

Figure 2

A Growing Need for U.S. Housing

U.S. population as of 1/1/2008
303,146,284

Percent change from 1/1/2007
+0.9

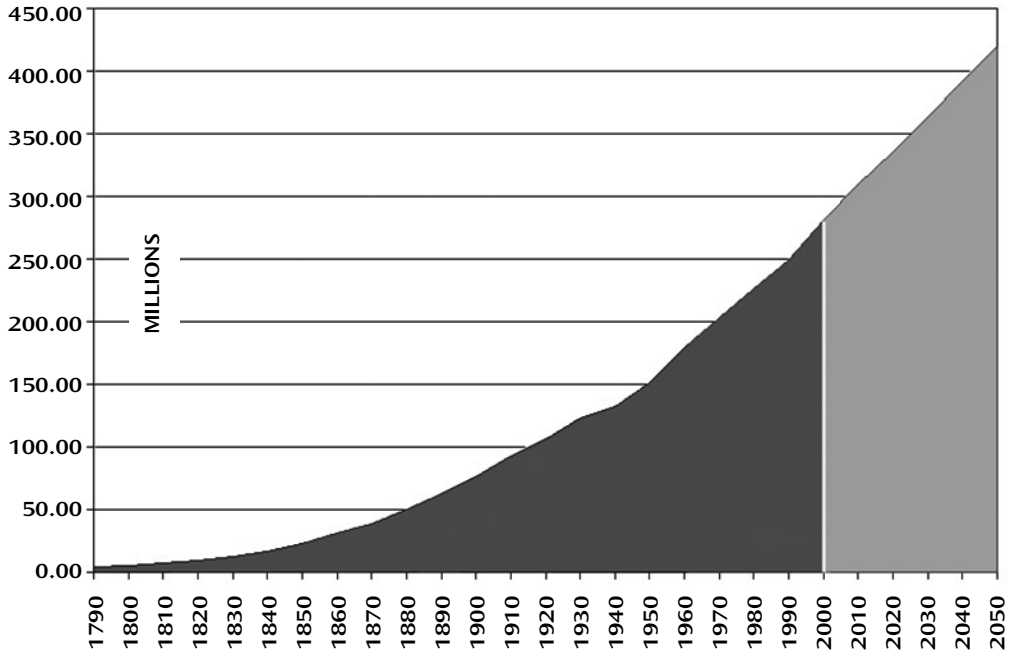
Rate of U.S. births
1 every 8 seconds

Rate of U.S. deaths
1 every 11 seconds

Rate of international migration to U.S.
1 every 30 seconds

Total rate of U.S. growth
1 every 13 seconds

Source: U.S. Census



housing. A report prepared by Virginia Tech estimates that as much as half of all real estate development projected by 2025 had not existed in 2000. This increase represents more than $10 trillion dollars of new investment for residential structures and more than $23 trillion in non-residential facilities (roads, schools and infrastructure).[1]

BENEFITS OF HOME OWNERSHIP AND INVESTMENT

With the rapid and consistent increase in the U.S. population, housing prices have also increased, doubling in the past ten years alone. This has made home ownership one of the best investments over the short and long term:

- U.S median home prices increased nearly 100 percent from 1997–2007.

- From 1997–2007, the Dow Jones Industrial Average increased 51 percent.

American home ownership is a foundation of the U.S. economy, representing more than $21 trillion dollars in value, with nearly $10 trillion in equity in those homes.

Home ownership represents a significant portion of American net worth (assets/liabilities), with 35 percent of assets positioned in home equity. As Figure 3 suggests, the value of a home purchased in 1997 may have doubled by 2006.

Clearly, U.S. home investments during the past 10 years have been a wise investment, yielding more than 20 percent in annual returns (Figure 4).

Despite the increasing cost of energy and construction, owning one's own home has outpaced inflation. Those who have failed to increase their net worth:

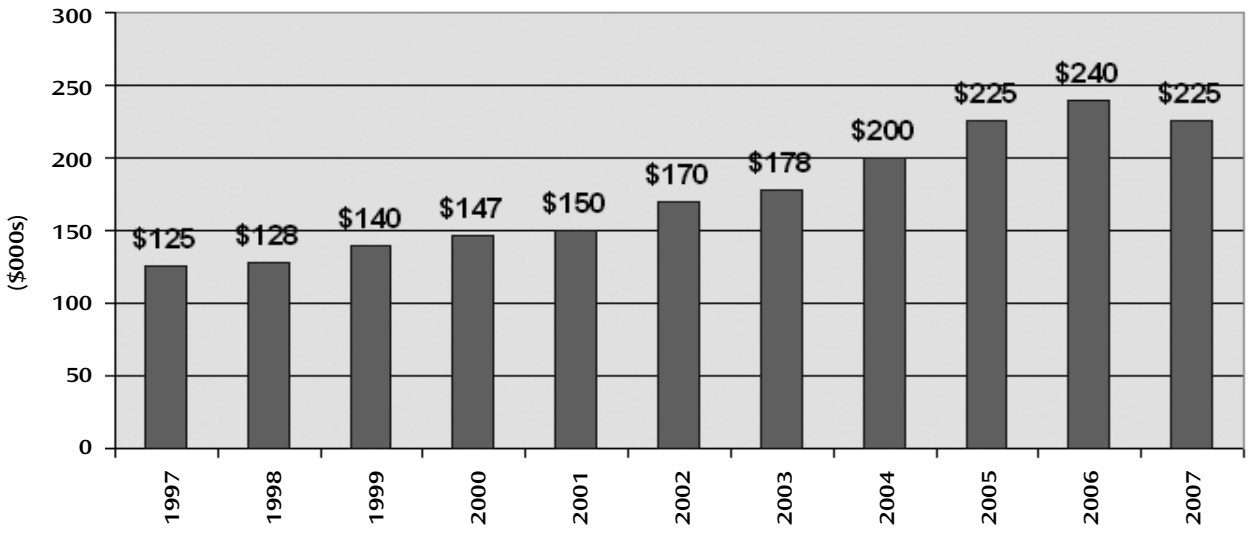
- never purchased a home;
- purchased in 2006 and sold in 2007 or 2008;
- borrowed up to 100 percent of the equity in their home in markets that have now seen declines in home values, and are forced to sell.

Home buyers who speculated on the continued rise in home prices are a large part of the problem in our current real estate crisis. Investors increased demand beyond any true market level. Many abandoned unsold units, heaving them onto the marketplace, exerting more pressure on a bloated inventory and further lowering prices. The good news is that most of those speculators are now gone, and the additional demand they "created" is being absorbed.

Considering a 100 percent increase in real estate value from 1997, one may wonder: what's wrong with a downturn in real estate values, if you "made" 100 percent? The trouble began when banks permitted homeowners to borrow against their increasing equity. Borrowers used the proceeds to advance their lifestyle, purchase a new car

Figure 3

U.S. Median Home Prices 1997-2007



Source: William Cohen, Mesa Development, LLC

Figure 4

Returns on Investment in Home (assuming a 10 percent down payment)

1997-2001	**=**	**24.5% annual return**
2001-2007	**=**	**29.2% annual return**
1997-2007	**=**	**22.0% annual return**

or buy a bigger home. Banks have corrected these practices, and it is increasingly difficult now to borrow both first and home equity loans in the U.S.

U.S. EMPLOYMENT ENVIRONMENT AND IMPACT ON INVESTMENT IN REAL ESTATE

Employment and job creation are critically important factors in determining demand for and pricing real estate. Employment data is one of the most carefully tracked, reported and often misunderstood indicators, as it relates to real estate. The past decade saw a strong growth in jobs in the U.S. However, national statistics fail to capture the more significant local market conditions that have a greater impact on local market conditions and investment.

The strength of U.S. employment (Figure 5) suggests that the housing market should be strong, at least through early 2008. To the contrary, it is weak. Since March 2007, the employment picture has become increasingly negative. Popular perception now is: will I have a job? can I pay my bills? And this absence of confidence has transferred to the housing markets, evidenced by people NOT making a decision to buy or sell—further depressing an already ailing market.

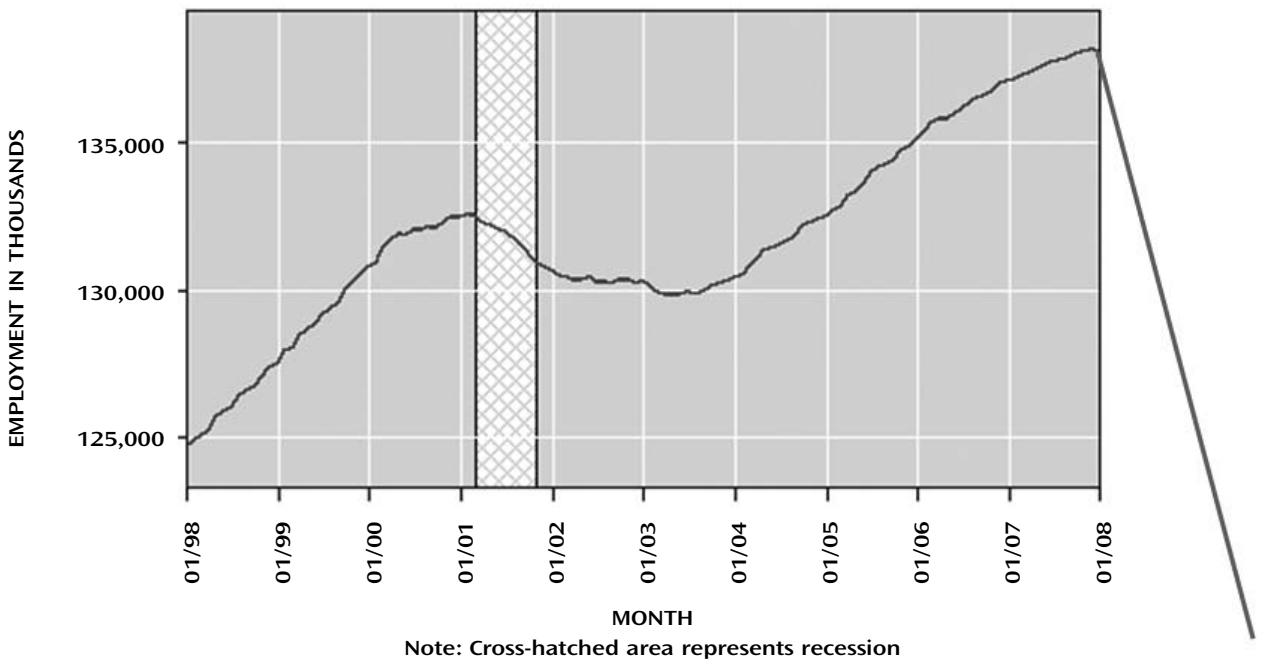
LOW INTEREST RATES BENEFITED INVESTMENT IN REAL ESTATE

U.S. investors and homeowners have benefited from historically low interest rates for the past two decades. Low rates enabled large numbers of investors and individuals to purchase homes with low cost financing. Homeowners and investors combined the low cost of financing with double-digit home price increases to use highly leveraged financing strategies to purchase bigger homes. With employment fears abated, loan affordability made it possible to finance a home.

As financing requirements tighten, and home values soften or even decline, many of those homeowners are now financially challenged. Exotic mortgages widely used in a flush and expanding real estate market are resetting at rates higher than many homeowners can reasonably afford (Figure 6).

Figure 5

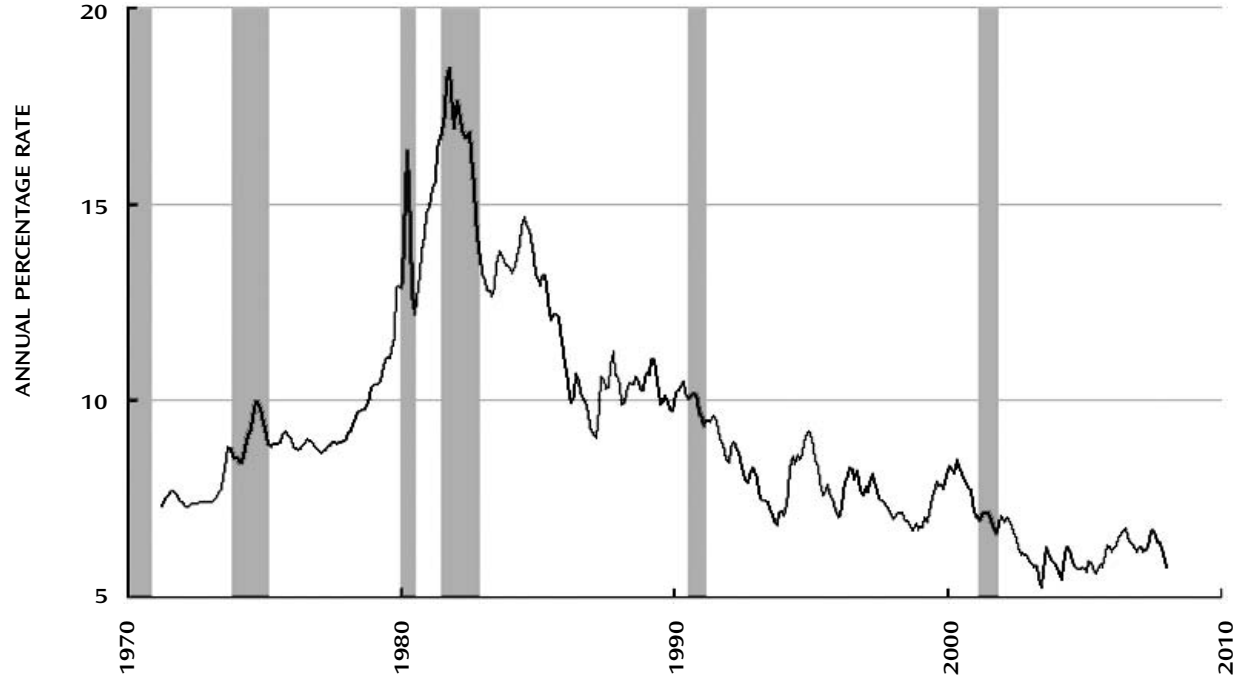
U.S. Employment



Source: U.S. Department of Labor

Figure 6

30-Year Conventional Mortgage



Source: Board of Governors, U.S. Federal Reserve, Feb. 29, 2008

MIGRATION TO OR RISE IN URBAN LIVING IN AMERICA

In the larger picture, we should be confident in the return of the U.S. housing markets and the increasing advantage of urban housing demand, a market sector that has experienced the least decline. But our real estate markets in the States are not immune to events occurring across the country or around the globe.

The past four decades saw a migration from America's urban centers to outlying suburbs (Figure 7). Challenging the economic and social fabric of many of America's largest cities, most urban centers suffered population declines, failing to capitalize on the growth in population. But in the 1990s, the quality of life and community in urban centers became highly desirable, reversing the trend in urban centers. Many cities saw a reversal of migration *out* of the cities, and began to capture a greater percentage of growth, primarily in dense, high-rise buildings.

Today, with rising energy costs, home buyers have more incentive to choose urban living. No longer will Americans simply consider how much home can they afford. Now they will be more thoughtful in choosing the *location* of their home, based on the cost of commuting to work.

It is in this environment that we see urban housing and greater density in tall buildings as choices for a better investment arena. This investment, though, must be made with the understanding that there is a greater concern about the availability of energy and food supplies in the face of exploding world populations.

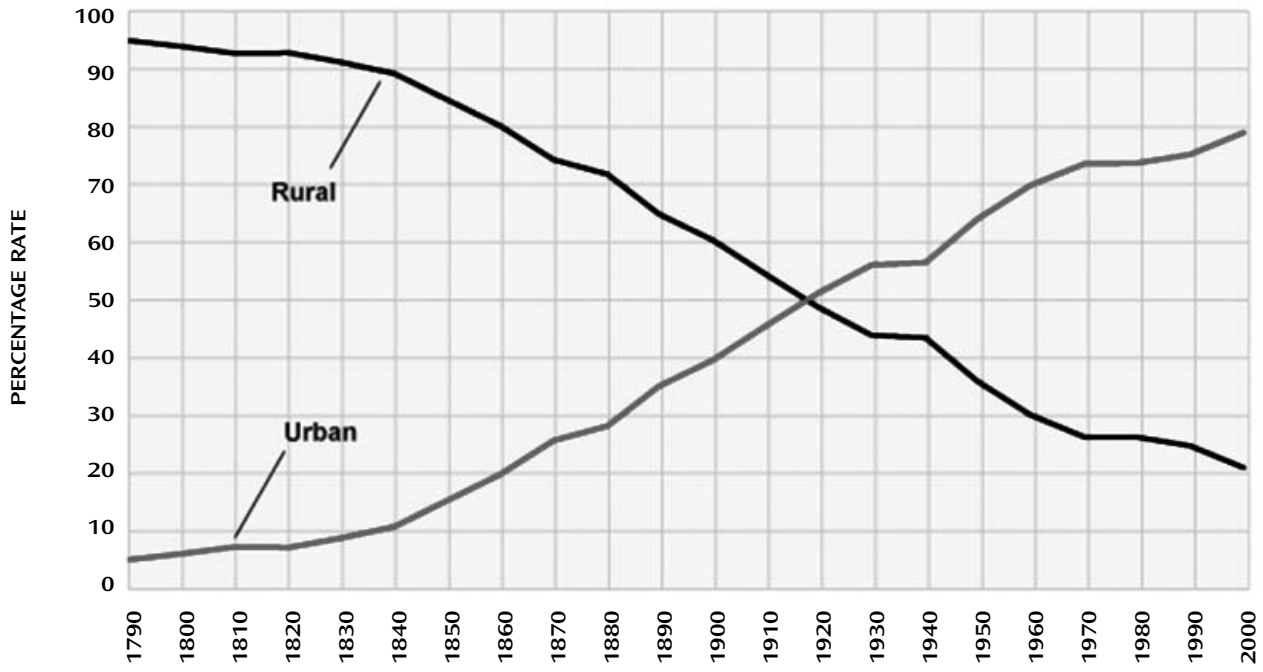
RESPONDING TO THE GLOBAL ENVIRONMENT AND ENERGY COSTS

Our world does not have unlimited energy supplies.

Even before the U.S. housing crisis and steep rise in energy costs occurred, U.S. cities and governments began implementing policy decisions and initiatives to conserve energy, reduce greenhouse gases and improve commercial and residential building practices in an

Figure 7

Change in Rural vs. Urban Living in America



Source: U.S. Census

effort to reduce the impact of development on our global environment.

The impact of global population growth combined with an almost unfettered thirst for a dwindling energy supply makes the uncontrolled development of raw lands unlikely. Neither communities nor developers/investors can afford the infrastructure investment in roads, utilities and schools—assets that already exist in our cities. Finally, the commute work is, on average, more than an hour, and consumes more energy than the buildings that commuters work in.

As our population, employment and housing grows, we foresee that growth and opportunity may be limited not by financial or housing market demand, but by the availability of energy sources. The U.S. marketplace witnesses similar limits to development in our western states like California and Arizona because of a shortage of water sources.

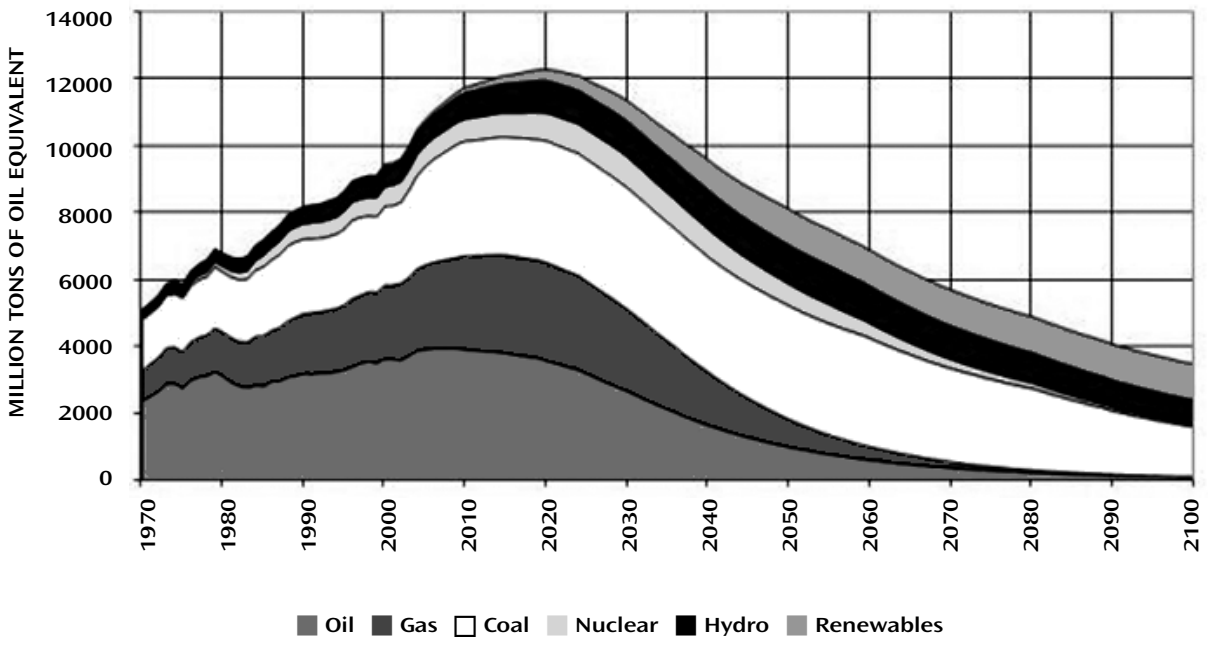
Lack of energy resources, it is clear, is a global crisis (Figure 8). The U.S. has long passed the point where it is able to meet its own energy demands. Despite the efforts of the last century we must wean ourselves of our national addiction to oil, find new sources/technologies, and implement radical energy savings and performance requirements for our built environment and transportation sector.

In the 70s, we experienced an oil embargo that spurred us into action and encouraged conservation efforts. Today you see similar initiatives with the growth of the GREEN BUILDING movement, and the creation of industry standards, new laws and new construction methods and materials—all focused on building and making it green.

As an industry, the real estate community has adopted the initiatives and requirements to be more ecologically sensitive and energy-efficient. We all must work to make it better and to conserve energy. Our challenge is *how*. *How* to define it? *How* to pay for it?

Figure 8

World Energy Supply 1970-2010



Source: U.S. Department of Energy

In the States, the overwhelming vehicle for addressing the impact of building on the environment, and energy use, has been the concept of "green" building. This has led to the establishment, growth and adoption of the standards of the U.S. Green Building Council's Leadership in Energy & Environmental Design, or LEED. This system for designing, constructing, operating and certifying the world's greenest buildings has become the standard for how our industry measures our progress and success in energy savings and reducing our impact on the environment.

LEED is a rating system to plan, construct, operate and recognize:

"...design and construction practices that significantly reduce, or eliminate the negative impact of buildings on the environment and its occupants with regard to site planning; safeguarding water use and water use efficiency; promoting energy efficiency and renewable energy; conserving materials and resources; and promoting indoor environmental quality."

LEED is one among many initiatives springing up across the U.S. and around the world as consensus builds that the environmental impact of human activity has altered natural systems to the point where the future ecological stability of the planet is at stake. Cities, counties, and states have made certification under the LEED system a requirement for new publicly owned, or publicly funded buildings (Figure 9). In some jurisdictions, certifiability is being used as a condition for zoning approval of larger projects. The rush to these standards has seen 20 states and more than 160 other jurisdictions implement LEED as a standard, but in different ways, making it difficult for a national developer or architect to always navigate different markets, however the goals are accepted and the results needed.

The U.S. industry has fully embraced LEED, and its benefits are being seen in all sectors of real estate, including housing. But using LEED as a tool to improve our environment may not be enough.

Figure 9

U.S. Implementation of LEED Requirements

State of Arizona	Public Buildings Silver LEED
State of Arkansas	Public Buildings LEED
Arlington County, VA	Incentive for LEEDs Silver-greater density
Ashville, NC	Public Buildings Gold LEED
Baltimore, MD	Public Buildings LEED
Chicago	Public Buildings LEED
Cincinnati, OH	Property Tax Exemptions for LEED buildings
State of Colorado	Public Buildings LEED
State of Connecticut	State Funded Silver LEED
Denver, CO	Public Buildings Silver LEED
State of Florida	Public Buildings LEED - Platinum
State of Hawaii	Public Buildings Silver LEED
State of Illinois	All Schools LEED
Los Angeles, CA	Public Buildings LEED
Los Angeles, CA	Expedite Private Buildings LEED Siliver Permits
State of Maine	Public Buildings LEED
State of Maryland	Public Buildings LEED
State of Massachusetts	Public Buildings LEED
Miami, FL	Public Buildings Silver LEED
State of Michigan	Public Buildings LEED
State of Minnesota	Goal of 100 LEED Building by 2010
Nashville, TN	Density bonus for LEED Buildings
State of Nevada	Tax Exemption for LEED Buildings up to 35%
State of New Jersey	Public Buildings Silver LEED
State of New Mexico	Public Buildings Silver LEED
State of New Mexico	Tax Exemption for LEED Buildings Silver and above
State of New York	Encourage LEED for Public Buildings
State of New York	Up to $1.5 million for Private LEED Buildings
New York, NY	Public Buildings LEED
State of Ohio	Public Buildings LEED, Schools Silver LEED
State of Oregon	Businees Tax Credit for LEEDs (Various Levels)
State of Pennsylvania	Encourage LEED for Public Buildings
State of Pennsylvania	$20 million grant funds for projects
Philadelphia, PA	Public Buildings Silver LEED
Portland, OR	Public Buildings Gold LEED
State of Rhode Island	Public Buildings Silver LEED
San Diego, CA	Expedite Private Buildings LEED Siliver Permits
San Francisco, CA	Expedite Private Buildings LEED Gold Permits
San Francisco, CA	Public Buildings Silver LEED
Seattle, WA	Density bonus for LEED Silver Buildings
State of South Carolina	Public Buildings Silver LEED
Tamp, FL	Density bonus for LEED Buildings
Washington, DC	ALL Buildings and Improved Space Silver LEED with Bond

Source: U.S. Green Building Council

For example, most developers are implementing LEED standards on new office buildings that are designed to new modern codes such as ASHRAE90.1-2004, which achieve almost a 35 percent improvement in energy performance. But, this savings fails to address the fact that most office workers who work in the new LEED-certified building consume nearly 30 percent more energy in their daily commute than the new building itself consumes. This suggests that although LEED benefits in individual buildings are being achieved, the larger issue of the environmental impact of automobile emissions and energy use by commuters is not being addressed (Figure 10). This demands a broader view with increased public/development policy on development patterns, public transit and regional air quality—all which may, in the future, impact development rights, decisions and investment.

FUTURE FRAMEWORK FOR HOUSING INVESTMENT IN THE U.S.: NEED FOR A GLOBAL PERSPECTIVE

Traditionally, our industry has taken a very narrow perspective as it looked at investment in housing. Market factors such as job growth, housing absorption and housing demand valuation have defined the pricing of housing and investment/lending decisions.

Today the environment is much more complex. Global investment in U.S. housing markets, changing housing

Figure 10

Comparison: Transportation vs. Energy Use for an Office Building

	U.S. Units	Metric Units
Average U.S. commute distance – one way (1)	12.2 mi	19.6 km
U.S. average vehicle fuel economy – 2006 (2)	21.0 mi/gal	8.9 km/liter
Work days	235 days/yr	
Annual fuel consumption	273 gal/year	1033 liters/year
Annual fuel consumption per automobile commuter (3)	33,900 kBtu/yr	9,890 kWh/yr
Transportation energy use per employee (4)	27,700 kBtu/yr	8,100 kWh/yr
Average office building occupancy (5)	230 ft^2/person	21.3 m2/person
Transportation energy use for average office building	121 kBtu/ft^2	381.2 kWh/m^2
Operating energy use for average office building (6)	92.9 kBtu/ft^2-yr	292.7 kWh/m^2-yr
Operating energy use for code-compliant office building (6, 7)	51.0 kBtu/ft^2-yr	160.7 kWh/m^2-yr
Percent transportation energy use exceeds operation energy use for an average office building	30.2%	
Percent transportation energy use exceeds operation energy use for an office building built to ASHRAE 90.1-2004 code	137%	

Sources:

1. U.S. Department of Transportation, Transportation Energy Data Book 26th Edition, 2007, Table 8.6.

2. U.S. EPA Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2006 .

3. Assumes 124,000 Btu/gallon of gasoline, DOE Energy Information Administration data .

4. Assumes 76.3% commute in single-occupancy vehicle, 11.2% carpool (2 per car) and no other energy use (commuting transportation modes from U.S. DOT Transportation Energy Data Book 26th Edition, 2007, Table 8.14.

5. U.S. General Services Administration.

6.This includes site energy only, not source energy. U.S. DOE Energy Information Administration Commercial Building Energy Consumption Survey (CBECS) data for 2003, published June 2006.

7. Bruce Hunn, ASHRAE, personal communication. Source: Environmental Building News, September 2007.

demographics that favor dense urban living, rising energy costs and declining supplies, even the cost and availability of food, are all issues now at the forefront of housing investment decisions. Global, national and local governments are setting new requirements and policies that will affect the location and financing vehicles/requirements for housing. As developers and investors, we must actively participate with governments and policymakers to support the "smart development" that increasingly reflect:

- growth in populations will continue to create significant demand for all forms of real estate, especially in housing;
- significant and real energy savings must be achieved if this growth can be sustained;
- radical and major energy changes and a reduction of population growth rates must achieved if we want to achieve sustainability;
- urban living choices are one of the few development options that can achieve major energy reduction. ■

ENDNOTES

1. Lang, Robert E. and Dhavale, Dawn. "Beyond Megalopolis: Exploring America's New 'Megapolitan' Geography." Metropolitan Institute Census Report Series. Census Report July 2005.