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FEATURES AND PERSPECTIVES

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Editor's Note

BY PETER C. BURLEY, CRE

"Neither spring, nor summer beauty hath such grace,
As I have seen in one autumnal face."

—JOHN DONNE

SUMMERTIME, AROUND THESE PARTS, IS A VERY BUSY SEASON, far from the lazy, hazy days in town. Our neighbor, Kenny, who is the grandson of the man who originally laid out his homestead here, continues to tend to his horses and cattle and to mow the fields for hay. His work begins early in April and continues through the waning days of early autumn, until the first snows bring all to a halt. Kenny shows no urgency in his labors; he simply presses on in his slow, methodical pace all summer long until the valley is fully prepared for our long, relentless Colorado winter.

By mid-September, Kenny's cows are fat. The hay is in. And, the valley, having completed its job, lies back, satisfied that the bounteous green months have fully met our needs for the coming several months. The grass turns golden brown, and the cottonwoods and willows along the creek mellow into a mosaic of soft yellows.

Autumn is a time for looking back at what we have accomplished during the warm green months. And, it is a time for looking ahead toward what we would like to accomplish in the months to come.

Looking back, I wanted to paint the house over the summer. I wanted to fix a few things and make ready for the coming winter. Like Kenny, I occasionally went out to mow my fields (though I left the baling to him). And, I sometimes sat to watch the cows get fat across the road.

For the most part, though, my summer was filled with conversation. About the economy. About the industry. About specific businesses and their needs. About, maybe, securing a paying job to meet those business needs. For many of those conversations, I scurried to places like Washington and Austin, and even up to Denver a few times. Plying my trade and selling my wares. Pointing to where we have been and where we might be going, suggesting direction, offering ideas. It's all what a Counselor does, after all, and it has been my appointed task to demonstrate the skills and knowledge that this Counselor has to offer.

Kenny Mows All Summer Long

Alas, the house remains unpainted. And, those few things that need fixing remain unfixed. And, I continue to look for a place to do my best work.

But, the hay is in and the cows are fat. And, winter will come, whether I have a job or not.

The other part of my summer has been devoted to *Real Estate Issues*. The editorial board has been deeply involved in discussions, fleshing out topics and issues, seeking thought leadership, investing huge blocks of time to ensure that this remains one of the industry's premier publications.

This issue is evidence of that effort. The articles herein reveal the breadth and depth of knowledge and expertise represented among the membership of The Counselors of Real Estate.

In his article **"After the Recession: Florida, Nevada, Arizona and the Next 5,000 days,"** Owen Beitsch, CRE, offers an in-depth examination of demographic forces and residential property markets in some of the places most deeply stricken by the recession. As Beitsch points out, "…little has been written about the actual *use* of real estate. The scrutiny of financial metrics has taken primacy over many fundamental social and demographic influences underlying the basic need for or the utility of real estate." In fact, demographic shifts that have occurred in places like Florida, which has experienced a net population loss in recent years, have resulted in changes in the need for, and use of, certain kinds of housing stock. A housing recovery in markets that have always relied on heavy in-migration will likely be slower, Beitsch asserts, as market activity is likely to fall short of the necessary volume to right current oversupply.

David Lynn, CRE, visits the measurement of supply constrained markets, and the implications of investment strategies that focus on them, in his article **"Supply Constrained Markets,"** Lynn presents the definitions and economics of supply constrained markets and provides measures for various property types within them. Lynn compares metropolitan area markets, based on the price elasticity of supply, for office, retail and industrial properties. The measures lead to the conclusion that investment in supply constrained markets should lead to stronger income and capital appreciation.

Massimo Biasin, of the University of Macerata, Italy, and Hal Smith, CRE Emeritus, present a research study/consulting project conducted in 2008–2009 in Italy entitled **"The Valuation of Mortgage Security by Italian Banks."** Prompted by the disastrous results in the mortgage and mortgage derivatives markets in the United States, the project sought to discern whether Italian banks, which hold large portions of assets in residential mortgages, faced similar risk factors. Interestingly, the study concludes that losses in residential mortgages in Italy were relatively minimal, the result of rules limiting exposure to subprime mortgages, among other factors. While there are clearly issues surrounding value estimates made by Italian appraisers, Italian banks have been judicious in their assessment of the property in the context of the immediate neighborhood and the surrounding economy.

We return to sustainability, this time in the corporate real estate arena, with CRE Colette Temmink's **"A Corporate Guide to Implementing a Sustainable Real Estate Program."** Temmink offers seven steps that can be taken by corporate real estate executives to implement a sustainable program in their respective portfolios. Temmink advises that corporate real estate executives are the "stewards their companies' assets and are positioned to provide the leadership needed to preserve and protect the environment, while still meeting the needs of their employees," and she concludes that "whether the driving motivation is cost savings or saving the environment—or both—now is the time to act."

Unlike the commercial sector, residential energy efficiencies are measured in newly completed stock only once. In their article **"Residential Energy Efficiency: A Model Methodology for Determining Performance Outcomes,"** Pierce Jones, Ph.D., of the University of Florida, and Ujjval Vyas, Ph.D., of the Alberti Group, offer an evaluation of ENERGY STAR-rated homes, along with colleagues Nicholas Taylor and M. Jennison Kipp, of the Program for Resource Efficient Communities. Having noted a deterioration in energy performance over time, the authors have set out to determine if ENERGY STAR homes, which have been promoted (and underwritten) as superior to non-ENERGY STAR properties, maintained an advantage in energy use. As the authors point out, "If the performance of ENERGY STAR homes decayed measurably compared with non-ENERGY STAR homes within five years, any attempt to use the certification as the basis of underwriting advantages (would be) in doubt." While the ENERGY STAR homes meet the performance thresholds early on, their performance tends to decline over time, often consuming more energy in subsequent years. From a policy standpoint, the authors find that a lack of any large-scale validation of ENERGY STAR-certified home performance could lead to difficulties in decision-making and market integrity.

Patricia Wall and Lee Sarver, of Middle Tennessee State University, discuss the nature of condominium ownership as securities in **"Are Condos Securities? How to Determine When You Have a Security."** The authors provide background on the nature of securities, suggesting that there is more to what defines a security than merely what we normally understand in the realm of stocks and bonds. In fact, "Not only are stocks and bonds securities, but many other things are as well." The nature of ownership and use of cooperative and condo units could be interpreted as owning something that at least looks more like a security than a home, changing the requirements that units be registered as securities. For the real estate community, the determination of what constitutes a security is "unsettled law."

Many municipalities are keen to issue tax-exempt bonds "to encourage development of blighted areas, increase the tax base and/or promote more affordable housing in high-cost housing areas." In his article **"Valuing Tax-Exempt Real Estate Bonds,"** Devon Olson, CRE, discusses the legislative background and definitions of tax-exempt financing and the issue involved in valuing bond financed properties. "Given tax-exempt bonds' attractive characteristics," Olson points out, "evidence indicates that sophisticated investors are willing to pay a premium for bond-financed apartment properties. Whether for acquisition or ongoing reporting purposes, accurately valuing tax-exempt real estate bonds requires knowledge of how they work."

With his article, "**Reconsidering the Definition of Highest and Best Use: The Case for a Post-Disaster Highest and Best Use,"** Don Epley makes a return visit to *Real Estate Issues* to consider whether, in post-disaster situations, a new definition and procedure for determining Highest and Best Use (HBU) might be applied when conditions are such that traditional methods are inapplicable. "Problems arise immediately," Epley tells us, "that bring into question the valuation process of a normal market. Public records may be partially or totally destroyed, property lines and boundary markers may be gone or hidden, and the infrastructure may be damaged in a manner that makes usability questionable." Epley argues that the normal approach and concepts used, such as market value, may be questionable, since normal market conditions simply may not exist in a post-disaster environment. He offers and discusses in detail alternative approaches "to solve and relieve the deficiencies" he finds in typical methods to estimate value in post-disaster situations.

Recent events in our institutions and society suggest that, at times and in some places, our values and our ethics have been, well, forgotten. Buzz McCoy, CRE, points out, in **"Ethics vs. Compliance"** that "several prominent financial institutions... seem to have forgotten the distinction between being legal and being ethical." There is a very real distinction between walking a legal line and doing business ethically in an environment of trust. Ultimately, business is built on trust, on relationships, on knowing certain limits. McCoy points out that values, when operable in the workplace, will lead to higher performance. "It is important," Buzz tells us, "to be rigorous about certain core values and constraints and to provide freedom for innovation and creativity around those cores." I fully agree.

CRE Maura Cochran summarizes interviews she conducted with several participants of a high-level conference held in Kenya as part of a CRE Foundation student exchange program with the Kenya School of Monetary Studies. In her article, **"CRE Global Outreach: The Kenyan Student Exchange Program,"** Cochran interviews fellow CREs Sam Kuckley, Byron Koste and Tom Justin, who traveled to Kenya, and Kenyan exchange students Nancy Atieno Jamal, Florence Apondi Amuok and Sylvia Wanjiru Kimani, who visited New York as part of the program. The conference in Kenya brought together bankers, regulators, practitioners, researchers, academic and senior policymakers. CREs Howie Gelbtuch and Hugh Kelly helped host the students in New York City. Cochran discusses the program, its origins, its focus, and expected achievements.

As I look ahead to the coming months, I imagine I will be continuing my conversations with potential employers. I don't know where those conversations will lead. But, like the rest of the industry, I remain hopeful.

I do know that the other part of my professional life, this journal, has a great year ahead. We are planning a special issue, devoted to the banking and financial environment, for January. And, we are already reviewing articles for the spring to include even more of the best thinking and insight for which The Counselors are so well respected. Stay tuned. ■

PETER C. BURLEY, CRE
EDITOR IN CHIEF

CRE

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CONTRIBUTORS

OWEN BEITSCH, PH.D., CRE, FAICP, is a principal with Real Estate Research Consultants, Orlando, Florida, a firm offering various economic and planning services to both public and private clients with substantial real property assets or engaged in policy or strategic matters dependent upon the deployment of such assets. He is adjunct faculty at the University of Central Florida and a research associate in the college's department of public affairs.

MASSIMO BIASIN is a professor of Financial Intermediaries at the University of Macerata, Italy, and also serves as principal in the consulting firm of Biasin & Biasin, with offices in Bolzano, Italy, and Munich, Germany, holding the equivalent designation of CPA. He received a doctorate in banking and finance in 1999 from the University of Venice, and served on the faculty of Catholic University of Milan prior to accepting the post at Macerata. Biasin also serves on the investment boards of several Italian REITs.

MAURA COCHRAN, CRE, SIOR, joined Bartram & Cochran in 1987 and has worked in the commercial real estate industry for more than thirty years. She practices both national and local consulting and project implementation, including due diligence analysis, adaptive reuse studies, marketing plans and corporate relocation assignments.

DONALD R. EPLEY, PH.D., CCIM, MAI, is a USA Distinguished Professor of Real Estate and director for the Center for Real Estate Studies, Mitchell College of Business at the University of South Alabama in Mobile. He has authored and co-authored nine textbooks, and has been the editor of two academic journals.

BOHDY HEDGCOCK is a senior associate in the Research & Investment Strategy group at INC Clarion, New York City and currently oversees bottom-up market analysis for private equity acquisitions and portfolio management. Previously he worked as a real estate consultant and urban planner. Hedgcock holds a master's degree in real estate finance from New York University, a master's degree in urban planning from the University of Colorado, and a bachelor's degree from Southwestern University.

PIERCE JONES, PH.D., earned his graduate degree in mechanical engineering from the University of Florida in 1980, and is a professor there in the Agricultural and Biological Engineering Department in the Institute of Food and Agricultural Sciences. He directs the Program for Resource Efficient Communities, an interdisciplinary, self-funded, entrepreneurial group that promotes the adoption of "best design, construction and management practices" in new, master-planned residential developments. Under his direction, the Program for Resource Efficient Communities is directly participating in land development and building projects that adopt and demonstrate "green" practices.

M. JENNISON KIPP is a resource economist and project manager with the Program for Resource Efficient Communities. She conducts applied outreach and research projects on water, energy and land-use efficiency in Florida, with a focus on accounting for the full costs and benefits of different resource management scenarios. Kipp holds master's degrees in applied economics and environmental pollution control from The Pennsylvania State University.

DAVID LYNN, PH.D., CRE is an economist, institutional real estate investor and strategist with extensive experience in national and international markets. He currently serves as managing director of strategy and research and general portfolio manager at ING Clarion Partners in New York. He is an author of three books, a noted speaker and commentator, and writes a regular column called "Capital Trends" for the *National Real Estate Investor.*

BOWEN H. 'BUZZ' MCCOY, CRE, is a retired investment banker. He was responsible for the real estate finance unit at Morgan Stanley for many years. McCoy is a past president of The Counselors of Real Estate and a Life Trustee of the Urban Land lnstitute. His recent two books are: *The Dynamics of Real Estate Capital Markets: A Practitioner's Perspective* (Urban Land Institute, 2006) and *Living Into Leadership: A Journey in Ethics* (Stanford University Press, 2007).

DEVON W. OLSON, CRE, MAI, is the director of the Utah Retirement Systems real estate portfolio, and is responsible for overseeing its acquisition, asset management, disposition, and strategic planning. He has more than thirty years experience in real estate valuation, management, investment and financing. Olson currently serves on the Real Estate Information Standards Board and is an adjunct professor at Brigham Young University in Real Estate Finance.

JEFF ORGANISCIAK is a senior analyst at ING Clarion Partners.

LEE SARVER is an associate professor of finance in the Economics and Finance Department at Middle Tennessee State University. He received his doctorate in economics in 1987 from the University of Tennessee.

HALBERT C. SMITH, CRE EMERITUS, is Professor Emeritus of Real Estate and Finance at the University of Florida. Previously he was a faculty member at Ohio State University, and was director of economic research for the Federal Home Loan Bank Board. Smith is a director of the Homer Hoyt Institute and a Founding Fellow of the Weimer School of Advanced Studies in Land Economics. From 1993–1998, he served as editor in chief of *Real Estate Issues*. He has taught and conducted research in several Italian and U.S. universities.

NICHOLAS TAYLOR has worked as research associate with the Program for Resource Efficient Communities since 2005, focusing on analysis of utility consumption data to identify effective energy efficiency measures. Taylor works with utilities, government entities and UF/IFAS Cooperative Extension Service agents to tie conservation program performance to policy initiatives.

COLETTE M. TEMMINK, CRE, currently leads the corporate real estate interests of Sun Microsystems. Previously Temmink served as vice president and general manager of Johnson Controls, where she was responsible for its real estate transaction and brokerage line of business for the West Coast. Her expertise includes all aspects of facilities, property and asset management, real estate transactions, distressed asset workouts, large-scale complex redevelopments including entitlements, master planning, infrastructure development, public/private partnerships and strategic corporate planning and outsource contracting.

UJJVAL VYAS, PH.D., J.D., is the principal of Alberti Group, a Chicago-based interdisciplinary consultancy specializing in emerging issues in the building industry including sustainability and high-performance buildings, building information modeling, and alternative project delivery systems. He has lectured and published extensively on legal and business risks in the sustainable building marketplace, covering large-scale policy, insurance, legal and technical issues. Vyas holds a Ph.D. from the University of Chicago and a J.D. with honors from Illinois Institute of Technology/Chicago-Kent College of Law.

PATRICIA S. WALL is an attorney and CPA, and presently serves as associate professor of business law at Middle Tennessee State University. She also has taught accounting and business law at the University of Alabama in Huntsville, St. John's University (St. Vincent's College) and Hofstra University. Wall received a juris doctor in 1979 from the University of Tennessee College of Law; a master's in business administration in 1987 from the University of Tennessee (Chattanooga); and a doctorate degree in education from Tennessee State University in 2004.

After the Recession: Florida, Nevada, Arizona, and the Next 5,000 Days

BY OWEN BEITSCH, PH.D., CRE, FAICP

To date, what has been written about the real estate industry and its association with the current recession has centered primarily on the flow of capital and its impact on yields, lending practices and the valuation of real estate.[1,2,3,4,5] Accordingly, on Aug. 3, 2010, Jay Marling, editor in chief of *The Counselor*, solicited opinions of The Counselors of Real Estate (CRE) membership via email regarding current United States fiscal policy, unemployment, the current availability of real estate financing, pricing, and cap rates.

With some obvious exceptions, it is notable how little has been written about the actual *use* of real estate. The industry's scrutiny of financial metrics has taken primacy over many fundamental social and demographic influences underlying the basic need for or the utility of real estate. Because these social and demographic forces have economic consequences, they ultimately affect the need for capital. If these are *structural* in form, they presage our entire decision making and planning processes, not just locally but at a macroeconomic level, much as the change in the 1986 tax code forced passive investors to evaluate all their interests in real estate as an asset class.

With the recession now deemed to have ended in 2009, it will have exceeded, by many months, those that occurred in the 1970s and 1980s, with extraordinary disruptions to the housing market. While the needs of the commercial real estate industry are emerging, residential property is of particular interest because it so badly lags other economic indicators.

Nevada, Arizona and, especially, Florida offer a laboratory for examining some of the social, economic and political conditions that may have relevance to other areas of the country. Like these states, many areas large and small have experienced extraordinary growth and are left to weigh the longer-term implications of a housing market that seems grossly overbuilt and reluctant to respond.

To illustrate the dimensions of the problem, Florida remains one of the country's fastest-growing states and has been on a trajectory to overtake New York, the nation's third-ranked state, no later than 2015. Suddenly that timetable, and its need for housing to accommodate that growth, is askew. In 2008, for the first time since 1940, the number of persons *exiting* Florida was greater than the number of persons *entering* Florida, resulting in decreased population estimates for 2009.[6,7,8] For this and other reasons, the Bureau of Economic and Business Research (BEBR) at the University of Florida has modified its long-term population projections which now show slowing rates of growth through 2035. In fact, future population counts in 39 of the state's 67 counties could fall below those of the 2007 projections.[9] The U.S. Census Bureau (USCB) estimates an inconsequential 0.61 percent increase, rather than a decline, for the

About the Author

Owen Beitsch, Ph.D., CRE, FAICP, *is a principal with Real Estate Research Consultants, Orlando, Florida, a firm offering various economic and planning services to both public and private clients with substantial real property assets or engaged in policy or strategic matters dependent upon the deployment of such assets. He is adjunct faculty at the University of Central Florida and a research associate in the college's department of public affairs.*

2008–2009 time period. Thematically, even if these differences underscore the variability in population, the numbers speak to *major* change.

Should Florida's sudden population contraction be evidence of a structural shift, the industry's expectations about real estate needs over the long term may require adjustment in analysis or scale. Much less threatening, the contraction may represent nothing more than an unpleasant but forgiving and manageable temporary disruption. Because so much of the value implicit in real estate is tied to job or population growth occurring across broad regions, it is worth (re)examining basic socio-economic data suggestive of immediate and future impacts, if any.

Without doubt, the supply of vacant residential product is at a historic high, juiced by builders looking for record profits, buyers looking for quick returns, and financial markets ostensibly looking at very little. The consequences of this housing overhang, however, invite varied perspectives. The extreme view is that the economy has changed and, along with it, the way we deploy and value shelter. Adjustments to policy may fall well behind consumer response.

CURRENT STATE OF THE ECONOMY

There seems to be little question that much of the slowing migration into once rapidly growing Florida, Nevada and Arizona stems largely from economic constraints that together limit individual mobility.[10] Almost overnight, these states show the scars of development dependent upon growth and movement.

Economic conditions in the past made these population centers very attractive in the context of their neighbors. Over a period of thirty years, migrant populations carried housing equity to these areas. Equity dollars seeded resettlement, often without concern for a specific job opportunity. As the data continue to demonstrate, it is difficult to release equity from an existing homestead in another state where home prices have also flattened or declined. Although conditions are better in Arizona, the jobless rate in Nevada and Florida materially exceeds the national level of unemployment for the first time in decades. To establish context, although unemployment is also high in Michigan, Florida shed nearly twice the number of jobs lost in that state.[11]

Because these same three states lead in the rate of foreclosures, prospective newcomers *with* available capital have a motivation to find locations more favorable to their residential purchases as either residents or investors. A recent Case-Shiller Index provides no expectation that low pricing offers immediate rewards in several markets covered by the report, pessimistically forecasting value recovery as late as 2020 in Jacksonville, 2039 in Orlando and 2020 in Tucson.[12] In the case of Las Vegas, values have fallen 56.1 percent from their peak; Miami 47.3 percent; and Phoenix 50.7 percent. A well-timed purchase in Phoenix may bring rewards there since year-to-year (2009–2010) values have increased about 5.4 percent. In both Miami and Las Vegas, values have only fallen further.[13]

Much of the unemployment experienced in these high growth settings is centered on the construction trades, certain segments of the tourism or gambling industries and professions tied to the planning, design or implementation of development. The construction jobs, in particular, are unlikely to be replaced for many years but the troubles are deeper. Even senior and established employees have proven vulnerable. In a less severe downturn, substitute employment may have been available locally for the most capable of these workers. These three troubled states, however, have not shown themselves as a safe haven for the legions of unemployed workers that might have worked to build their futures there. As suggested by the population counts in Florida, a number have instead *returned* to their home states where they have family and social infrastructure, even if they have no jobs.

Despite efforts to diversify, the options for skilled or technical labor in these former boom states remain limited, discouraging talented newcomers and forcing out those that might otherwise stay. Nothing illustrates this prospective economic dislocation better than NASA's termination of the shuttle program in Florida. The end of shuttle operations may release thousands of highly trained technicians and scientists with few industries nearby to absorb them.[14,15]

For the foreseeable future, management will emphasize increased worker productivity, not materially increased employment. Such decisions will only slow recovery in the south where, according to the Bureau of Labor Statistics (BLS), news is grim. The BLS reports that Georgia, Florida and Arizona were among the five biggest losers of jobs from 2007–2009.[16] Altogether, they shed almost 1,300,000 jobs during these years.[17]

To regain anywhere near the levels of employment achieved *pre*recession will necessitate that phenomenal numbers of jobs be created. The scale is difficult to grasp. In Florida alone, some 700,000–800,000 jobs would have to be created to reach full employment. Assuming no change in the current labor force or population, this number is more than twice the number of jobs created in 2005. In retrospect, the number of jobs realized in 2005 seems an anomaly—*exceeding* the previous year by more than 80,000.[18] Even with the recession ending, it is sure to be painful for those needing a job.

Counter arguments offer the prospect that technical talent, such as that separated from NASA, will be redirected into self-employment and research opportunities. This will seed future economic expansion. While job growth in the U.S. will likely remain concentrated among small employers, they have also shed a disproportionate number of workers according to some reports.[19] Any beneficial effects coming from new businesses will require a period of time to extend across the regional economy in a manner that job and population growth are sustained. The credit outlook dims this prospect. Because banks, the primary source of loans to small businesses, and venture funds, an important source of entrepreneurial support, are themselves in retrenchment, the desirable impacts stemming from these potential new operations will take much longer.

EMPLOYMENT DIVERSITY

During prior recessions, economic conditions in Florida and Nevada seemed brighter than they were elsewhere. Jobs requiring marginal education were relatively quick to form and easy to fill. Perceptions about opportunity lured economic migrants so local unemployment rates were low compared to those elsewhere.

Interestingly, Oregon—the Portland area in particular, which is often held up as a model of growth and financial responsibility—is experiencing its own economic meltdown despite its strong employment diversification. In terms of reengineering its economy, Oregon offers employment and wealth opportunities that are the envy of the boom states, but even Oregon has its problems: The unemployment rate (February, preliminary) is 11.4 percent, comparable to Florida's. Although explanations for Oregon's job losses remain conjectural, the state's many economic dimensions appear to offer varied avenues to recovery. Even California, struggling with its budgetary and political problems, has the advantages of a mature economy.

States such as Oregon and California offer the prospect that some sectors will show improving financial condition, though others are slower to respond. These states provide an economic base sufficiently diverse and positioned to diversify further still. Despite their troubles they maintain an attractive advantage. By contrast, the business models of Florida and Nevada, drawing largely on a narrow class of jobs, do not offer comparable promise for the future.

AGING OF THE POPULATION

The population is already rethinking the age of retirement, which may be a forced decision should benefits available through Social Security be altered or postponed to a more advanced age. Commensurate with retirement, substantial segments of the population have traditionally elected to choose states other than their own for their senior years.

As the decision to retire is delayed, so are the large movements that dominated the historical rates of growth in Florida, Nevada and Arizona.[20] Among its southern neighbors, Florida had proved itself especially attractive, but this preference is showing signs of weakness. Currently, Tennessee, Georgia and North Carolina are showing increases because they are aggressively recruiting retired populations as a matter of policy.[21] In the west, Colorado, Idaho and Utah also have experienced very high rates of retirement age migration.

The decision to postpone retirement and move to another location has many influencing factors. It is, at least in part, dependent upon one's ability to convert the homestead into a source of capital for a new residence, often anticipated to be debt-free. Renters are spared the stress of selling a home prior to moving. Homeowners necessarily must partner with other people wishing to acquire their existing homestead.

Generally, the pairing of retirees and buyers has usually been necessitated by demands stemming from upward mobility and increasing family size. In the past, this arrangement worked well, as the aging World War II population (in control of larger homes and seeking release from their mortgage obligations) transacted with the baby boomers (in need of residential units more suited to their family size and incomes). Since this World War II group of homeowners was significantly smaller

than the baby boom cohort, the former found it easy to sell and to move, pushing housing prices upward as demand and supply reached equilibrium.[22]

Those older than 45 comprise the largest segment of the population. In the category of homeowners, this group of persons (64.3 percent), based on 2000 data from the USCB, literally dwarfs the population falling into the 25–44 age group which in the past has been the most active home buying segment.[23] Detailed age segmentation may offer other conclusions but the gross comparisons seem to identify many more potential sellers than buyers.

Not only are the physical numbers of the active buying population seemingly lower, their housing needs are substantively different based on the size of household, which is about half the size of the family started by their parents. While recent trends toward larger single family homes suggest otherwise, the only reasonable short-term justification for larger homes would be continued price reductions to clear inventory. More rationally, over the longer term, a younger, smaller and potentially less affluent population seems likely to avoid a real estate transaction resulting in a larger debt burden than its actual needs require.

Myers and Vidaurri have written thoughtfully on future housing needs based on age segmentation in the population.[24] They argue plausibly that age cohorts, as described here, are much more fluid, that conventional comparisons of age groups may not be a suitable basis for projecting future housing requirements. They reason that cohorts are indicative of a static condition. The problem with this kind of analysis, as they observe, is much more complicated.

The issue however is *not* about measuring housing demand broadly across the population. Rather the challenge is to match a *specific* seller with a *specific* buyer, releasing equity on terms that provide optimal benefit to both, an outcome suspect whatever method is used to analyze the problem. The complexities mount when the cultural differences in age groups, characterized by the likes of urban theorist Richard Florida, are presumed to place less emphasis on the homestead.[25] These differences may be even more pronounced over the next several years since the recession has exposed so many to the penalties, as well as the rewards, that can come with home ownership.

The upshot of these size and population imbalances is that many seniors simply will not be able to sell their homes and relocate to one of the traditional retirement settings when they deem it time to stop working. Where they are successful in selling their homes, the price concession necessary to accomplish the transaction may not confer the intrinsic economic advantage expected with a home sale. For those, retirement may not be so comfortable financially.

LOW TAXES, FAST GROWTH

Only a handful of states have no income tax, with Nevada and Florida being among the least diverse in terms of their financial resources to make government work. That they would also be among the fastest growing and most troubled real estate markets hints at the lurking dangers of sparking economic diversification by touting fiscal conservatism while also ignoring required community investments. For years, Florida has refused to address the imbalances among growth, services and financial resources. It is not surprising that in 2009 the Pew Center on the States found Florida, Arizona and Nevada—along with Illinois, Michigan, New Jersey, Oregon, Rhode Island and Wisconsin—to be at grave budgetary risk.[26]

Over the last several decades, Florida's combination of warmer weather, lower housing prices generally, and a lower tax burden proved very attractive to migrating populations. For the younger populations, home ownership was deemed relatively affordable. For retiring populations, the state offered financial sanctuary by extending the resources of fixed or limited incomes. However, should the theoretical attractiveness of lower-cost living be stripped away, replaced instead by mounting bills for deficient services, Florida offers few advantages to leverage in the short term.

Like Nevada and Arizona, both foils for costly California, Florida is a tax haven for residents in the nation's Northeast and Midwest regions who may be considering migrating to a southern state. Compared with New York, New Jersey, Ohio, and Pennsylvania, which have been principal sources of in-migrants to this state over the last 10–15 years, Florida's tax burden (measured in terms of dollars per capita) has ostensibly proven beneficial to individuals and businesses. Florida's overall tax burden places the state among the lowest relative to income.[27] The most recent report ranks Florida overall at 47th, Nevada 49th and Arizona 41st. For comparison, New Jersey and New York lead at first and second place respectively. In terms of its

business environment, the foundation ranks Florida fifth, Nevada fourth and Arizona a more distant 29th.

Even with its low tax burden, Florida's property taxes have been the subject of recurring news and political attention. The Tax Foundation edges Florida up to 22nd place on this single measure.[28] Because property taxes seem so visible, the very public rancor directed toward this levy may have discouraged future residents from choosing Florida, certainly given other economic considerations of a near-term concern. For those who believe their properties are now badly over-assessed relative to their *real* value, tax relief is relatively slow to come since property assessments often lag real activity in the marketplace.

The focus Florida's legislature has given to capping both taxes and spending continues to draw attention to the state's poor management and fiscal practices.[29] Without addressing the ideological merits of competing views, the consequences of ill-conceived or implemented policies have not proven compatible with increased *job* growth even if they spur some *population* growth. If low taxes are the most potent measure of economic prosperity, Florida would be a growth leader with its job and housing systems quickly recovering. Even the most ardent fiscal conservative can see the reverse is happening.

THE IMPACT OF SEASONAL UNITS

According to the USCB, about 20 percent of the nation's seasonal homes are located in high-growth Nevada, Florida and Arizona.[30] By itself, Florida had more than 16 percent of the nation's seasonal homes, a percentage in excess of the state's proportionate population. If timeshares are added to Florida's count, the disproportion would be higher but their impact is not clear from the available data.

To reinvigorate the moribund economies of Florida and these other boom states, excesses in the seasonal housing must also be cleared. They will be sold to users or investors but many of the same considerations impacting general mobility and housing choice affect the market for the state's inventory of seasonal units as well as its permanent housing stock. As with other forms of housing, patterns of ownership elsewhere, financial resources and relative cost are important determinants of second-home purchases.

In Florida, many buyers will be from South America, taking advantage of strong growth or favorable currency exchange rates as these conditions vary over time. In the context of this article, it is probably not unreasonable to assume these populations will continue to represent a buying segment but the numbers won't themselves be sufficient to offset other lost opportunities. If anti-immigrant fervor builds in Florida, as it has in Arizona, the economic consequences could be large.

For many American baby boomers approaching retirement age, seasonal or second homes in Florida, Arizona and Nevada are viewed as transitional homesteads, intended for eventual permanent residency. Should the boomers be precluded or constrained from making a seasonal purchase, they may never become permanent residents in Florida or other states seen attractive for retiree populations.

How second homes function in these states as transitional units for the future population may be speculative. What seems assured is that the current turbulence in the financial markets will retard favorable mortgages for second and seasonal homes for all but the most qualified buyers. Different banks and investors, of course, have their own criteria within federal guidelines. Among those criteria are their own internal standards for what comprise declining or failing markets. Many lenders—without doubt, the more conservative ones—have labeled Florida, Nevada and Arizona as stressed markets, placing them at the higher end of the risk scale.

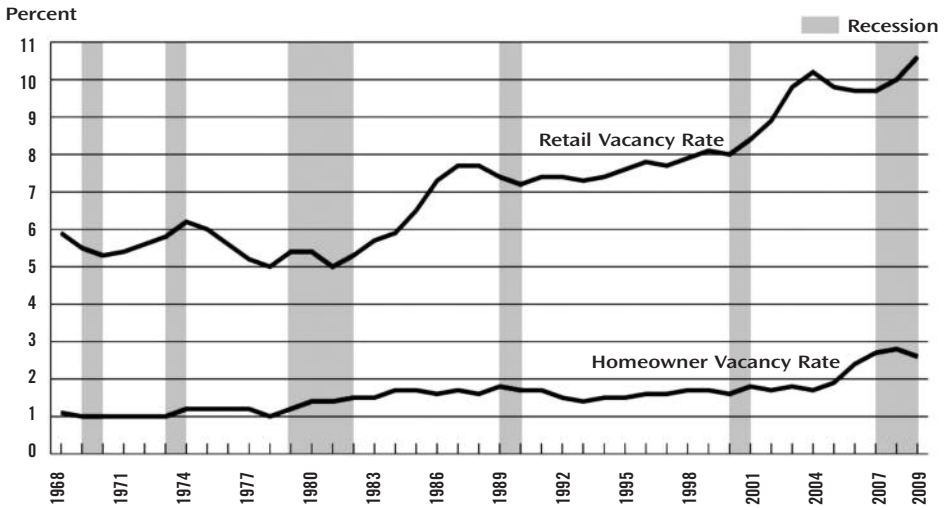
Condominiums, as second or seasonal homes, pose a different set of problems for lenders and buyers. Condominiums have underwriting criteria different from that applied to single-family units, and now typically carry onerous conditions or terms, if prospective buyers qualify at all.[31] While mortgage guidelines speak to the investment *preferences* of individual institutions, these lenders must stay within federal rules and regulations that are already assuming draconian change.[32]

SALES VELOCITY

The data available from the National Association of REALTORS® (NAR) measure the speed and velocity of sales without addressing the matter of occupancy. The latest reports show some slowing in sales activity but there have been sparks of interest, probably stemming from tax credits. From the standpoint of a beleaguered lender or homeowner, a sale reported by NAR is something of a victory. For the moment, set aside the downward pressure on prices that has occurred in the course of this improving sales pace compared *with a*

Figure 1

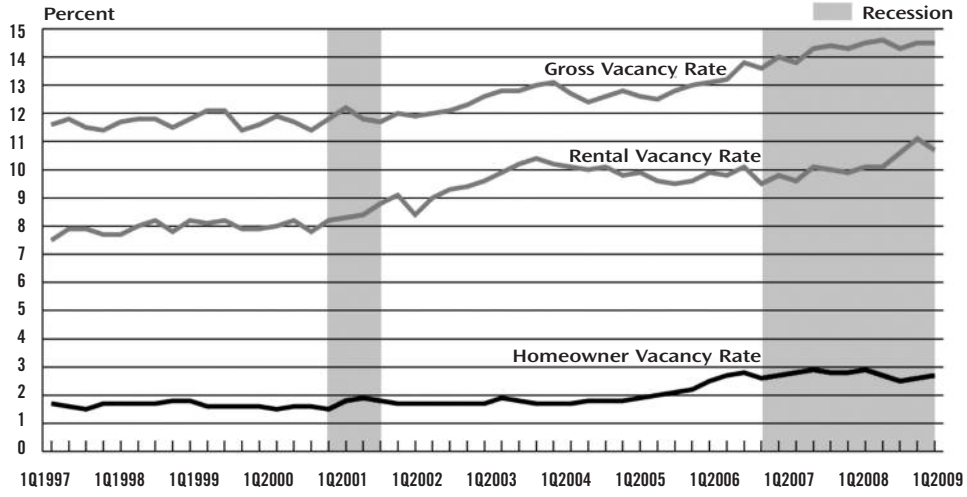
Annual Rental and Homeowner Vacancy Rates for the United States: 1968–2009



Source for Recession Data: National Bureau of Economic Research, Inc., 1050 Massachusetts Ave., Cambridge, MA

Figure 2

Quarterly Rental and Homeowner Vacancy Rates for the United States: 1997–2009



Source for Recession Data: National Bureau of Economic Research, Inc., 1050 Massachusetts Ave., Cambridge, MA

badly depressed past year. It is evident that the volume of transactions is not having the hoped for effect on overall vacancy rates. They remain virtually unchanged for the rental and ownership inventories combined.

The USCB reported that the nation's rental vacancy rate for the 4th quarter of 2009 was higher than the 4th quarter 2008 rate (10.1 percent), but not statistically different from the 3rd quarter (11.1 percent).[33] Among homes intended for owner occupancy, the 2.7 percent vacancy rate achieved in the 4th quarter of 2009 was not statistically different from the 4th quarter 2008 or from the 3rd quarter. Nationwide, there are now almost two million vacant units for sale despite the upturn in activity. As the graphs illustrate, the nation's housing vacancy rates have never been higher during other periods of recession.

These trends and numbers offer perspective on Florida's inventory and vacancies which are well above the average for the remainder of the U.S. In Florida, the 4th quarter vacancy rate for the rental inventory was 15.3 percent. Three other states—Arizona, Kentucky and Alabama—were higher.[34] The 4th quarter rate for the ownership inventory was 4.1 percent in Florida. At the end of December 2009, Nevada was the only other state with a home ownership vacancy rate higher than Florida.

The failure of the sales pace to clear the inventory of vacant units suggests that a transfer of ownership is not systematically matching an actual user with the unit in question. In some cases, bargain units acquired through short sales or foreclosures may themselves subsequently become short sales or foreclosures.

CONDOMINIUMS AND THEIR IMPACT ON VALUES

From 1968–2008, the *detached single-family* vacancy rate had rarely exceeded 1.7 percent, never exceeding 2.0 percent. At the end of the 4th quarter of 2009, the rate had jumped to 2.3 percent, decreasing from 2.5 percent for the same period in 2008. Not surprising, multi-family units in larger, attached structures (those with five units or more) intended for home ownership had higher vacancy rates, 9.2 percent, up from 8.4 percent through the 3rd quarter and up for the same period in 2008.[35] These are not the worst rates historically but they combine with somewhat smaller structures to yield one of the worst overall occupancy rates. Though discrete data are lacking, given their physical configuration, these are likely to be largely condominium properties.

Data from NAR offer a glimpse into this segment of the residential industry which anecdotally, over the past five years, has repositioned many urban projects and settings.[36] The NAR data, as of late 2009, seem to indicate that Florida remains disproportionately represented among those states with the most seriously deteriorating condominium markets.[37] Seven of the reported ten worst declines are in major metropolitan areas within Florida. Orlando is at the top of the list, suffering a 56 percent decline in median sales price since 2008. Not surprising, the three other metro areas in the top ten are located in Arizona and Nevada, with Las Vegas in the second position.

One factor contributing to crashing prices is the obvious difficulty in securing favorable mortgages. Implicitly, the aversion of lenders requires that condominiums be purchased for cash or with substantial down payments. Ironically, the family or individual most suited to these now lower priced units also will be the same family or individual who would most likely not have the cash resources to make the purchase in the first place. Consequently, units available for purchase are left to large investors whose bulk purchases remove inventory but further reduce values and prices. Several examples in Florida offer anecdotal evidence of these effects.[38,39,40]

In any case, the acquired condominium still must be occupied, and the rising vacancy rates indicate occupancies are not improving at the moment. Left unoccupied, and possibly moving into a state of permanent physical decline, these units may become uninhabitable. They already are becoming a management concern as owners and distressed owners clash over financial responsibilities of maintenance and upkeep.[41]

COMPETING STATES

Under now outdated assumptions, Florida was projected to replace New York as the third largest state in just a few years. While it eventually will achieve that position, the population could reflect a different cultural or socioeconomic composition than once expected and, in the short run, slowing growth offers little to abate the state's supply of residential inventory.

For reasons cited, Florida's preference as a haven for retirees and second-homeowners is being challenged by Georgia, North Carolina and Tennessee, among others. Because the economies of neighboring states have not shown a dependency on these population segments, their housing inventories, even if excessive, have not been as badly overbuilt as in Florida. Consequently, their economic recovery is plausibly swifter. In the race for population stability, these other states—while not reaching Florida's numbers—will become more attractive, drawing some population away from Florida.

At the same time, some 19 million total housing units in the nation remain vacant. Expressed in absolute numbers, the sum is a historic high. In this context, Florida does retain certain locational advantages even as the disadvantages must be acknowledged. Still, the housing options across the country reflecting style, price and location are far greater than they have ever been before because the levels of production achieved in the last four years were so extraordinarily high.

VARIATIONS IN POPULATION PROJECTIONS

The BEBR remains the state of Florida's most recognized source of projected population. Arizona and Nevada have similar resources that guide legislative initiatives and function as controls for the distribution of some funds.

In the case of Florida, statutory rules (9J-5) require that the data be used to guide planning for the built environment. The data are treated as immutable, not as a measure of what *could* be. In the current economic environment, the limitations in the data may lead both investors and regulators to flawed decisions about the likely future, especially if plans involve extremely large projects. These have been the foundation of Florida's residential growth.

Several forces are working to intervene in this calculus, which has historically equated population with a prescribed number of housing units but it's too early to determine the true effect. On one hand, the rate of household formations is slowing due to a variety of social and economic causes. These formations are producing smaller households, so a moderately increased number of units are still required, though the units themselves may be smaller in size. On the other hand, among some ethnic groups, the growing number of extended families suggests that the housing inventory will expand at the rate below that of population growth. This latter indicator, with its dampening effects on housing, is itself mitigated by the high birth rate among these same populations. This higher birth rate would normally drive an increased rate of household formations.

Then there are the confounding reports coming from Andrew Hacker, a sociologist at Queens College of the City University of New York, who claims a decline in the birth rate resulting from the recession.[42] In 2007, the number of births in the U.S. exceeded those during the baby boom. But last year there was a decline, according to data from the National Center for Health Statistics. Specific to Arizona and Florida's rapid population trajectories, births declined in the former about 3 percent during 2008, the first decrease since 1991 when there was also an economic slowdown. In the beginning of 2009, there were 7 percent fewer births than the year before. These numbers follow the jobless rate which increased from 5.5–8.7 percent over the same time period.

These are obviously competing forces and trends but the argument for smaller families and fewer households is especially compelling in the wake of the recession. If Hacker's analysis holds, his sharply falling rates would offer the prospect of materially lower populations and fewer household formations, certainly over a lengthy planning horizon.[43]

SETTLEMENT PATTERNS

While intuitively attractive, residents are *not* returning to the nation's central cities on a massive scale. The data do not support these claims. The fact remains that urbanizing trends are at best nascent, and it will require many years before a major shift in residential patterns and work settings occurs. At the most basic level of scrutiny, it is hard to conceive that the nation's existing central cities, without unprecedented intensification, have adequate land to satisfy the need of the nation's expected population.

According to Nathaniel Baum-Snow of Brown University, there are substantive economic forces that tether industry, workers and residents to the suburbs.[44] Because of available infrastructure, productivity has increased while many firms have decentralized. Baum notes in his recent paper that *both* jobs and residents from 1960–2000 continued to elect suburban locations at about the same rate, an option enabled partially by investments in infrastructure, saving time and costs. Despite claims and complaints to the contrary, the time metric is observable in a simple statistic: the mean commute by car is about 25 minutes.[45] The commute by public transportation systems require literally twice that amount of time.

Let's be clear: the argument *isn't* that a trend may not be forming. Nor is it that policies enhancing urbanization or intensification are inappropriate. Rather, conditions still largely favor the suburban form of development because it is has certain efficiencies and scale, is compatible with mainstream lifestyle choices and offers the capacity for growth. From the perspective of the user, it has the advantage of at least appearing to be far cheaper. Because of their cost basis, dense urban dwellings are relatively inelastic in their pricing structure. They seem much less likely to see the absolute declines in price now sweeping the nation's outer rings where housing options abound.

The corollary is that the suburbs, even at their distance and the cost of fuel, may recover more quickly than we imagine. Places like Florida with plentiful land, fully entitled for development, may benefit.

THE PREFERRED PLACES

Is it possible to be more specific about the communities and locations in the U.S. where growth is likely to occur? If the various considerations outlined in this article have

merit, they hint that growth capacity may exist in some locations but fall short in others. Where growth pressures should be most evident are in those jurisdictions that have historically had the greatest growth simply because they can demonstrate stability and have a foundation capable of supporting additional growth. More simply, unless disrupted, growth will follow its current path.

Consider that the 50 largest of the nation's census-designated metropolitan areas were all established many decades ago, and all but four continue to support growth based on 2000 population counts.[46] Viewed as relatively nascent urban communities, the metropolitan areas of southeast Florida (rank: 7), Tampa (rank: 19), Jacksonville (rank: 40) and Orlando (rank: 27) are all on this aging list of significant commercial centers.

CONCLUSION

Fairly and correctly, other industry analysts will offer their opinions concerning overlooked real estate trends or market influences. Some of these will deal with the function of the credit markets. Obviously credit enables real estate opportunities, whatever they are, to be realized. The trends described in this article, however, are substantively more basic than matters associated with credit markets that should themselves be responding to the dictates imposed by users of the nation's real estate assets. The state of the economy evidences the credit markets broadly ignored underlying demand. While locational considerations have been discussed, preferences for particular *forms* of housing have been addressed only minimally. But preferences have proven to be transitory. *Too many* houses or *too many* shopping centers, if nothing else, results in misallocation of resources.

The industry's brokers, developers, builders, and economists will infer different interpretations of the trends that *are* identified. That too is fair, but overall those mentioned have been discussed in terms of their relative advantages and disadvantages to lend competing perspectives.

Accepting the likelihood of oversights or added interpretation, the trends outlined here give fewer reasons to be optimistic than pessimistic and more reasons to be cautious. In the main, they lead to the worth in reexamining conventional thinking. On balance, the evidence reinforces that recovery will be slower rather than faster, and the numbers necessary to right the market are far bigger than many people fully appreciate. In this context, Case-Shiller's outlook and the rate of employment growth are particularly sobering. While it should not be inferred that claims are being made for a sudden, second downturn, such an event is not an impossibility. Indeed, this article is largely silent on the growing storm in the commercial marketplace.

Enough forces are in play to suggest that the nation's suburbs, though they may be objectionable on many counts, will remain an integral part of the built environment. Florida, for better or worse at this stage of its development history, is dominated by this pattern of activity simply because the supply of newer housing necessary to support its large population has been sited there. The *needs* of the future population, when matched to the character of today's housing stock, may be somewhat debatable. Past rates of population growth, however, are subsiding. This decline signals, at the very least, a need to examine older ideas about the linkages between buyers and sellers. Many variables are working together to dampen the rate of job and population expansion, some of which must be assumed as structural. Without regard to their location, we may simply need fewer homes to accommodate the future population.

Absent some cataclysmic event (hurricanes: New Orleans) or industry movement (Disney: Orlando), growth favors settings where it has proven fertile over many years. In the places where population growth is occurring, the suburbs seem better positioned because of cost, precedent, available supply, and simple preference. They have obvious locational advantages that policy cannot simply *undo*. As a result, the excess lot and home inventories may yet find buyers over time. Florida looks very attractive weighed on this scale of variables.

Most of the observations described in this article involve long-term perspectives that the real estate industry is rarely willing or needs to address except for the most costly or unusual projects. Builders and developers rarely have been able to contain themselves as the market shows even the faintest signs of moving forward. The observations summarized are not a substitute for careful and insightful evaluation of local market trends and influences, but these considerations might form the basis of an initial checklist, again for larger projects in particular.

If the conditions described are not structural, they absolutely affect each Florida community in the short term nonetheless, in large measure because the state's revenue structure is closely correlated to growth in the real estate industry. This connection is a policy matter,

not strictly a growth matter.

There is scant evidence that the fiscal and job challenges facing Florida and similarly constructed states will abate in any immediately foreseeable time frame. Consequently, this data might flag caution for other states with dependence on very discrete industry sectors and large numbers of migrating retirees or seasonal residents. Although neither Arizona nor Nevada have Florida's level of growth, investors eager to act there should observe this state's struggles to regain stability. The comments in this article aptly apply to these states but the social cost is significantly lower because their populations are so much smaller. Logically, the ideas outlined should relate to other states identified by Pew as also financially at risk.

While economic conditions in the past made Florida, Nevada and Arizona more attractive in the context of their neighbors, the current circumstances do not favor these states or their leisure industries. California has some of the problems that Florida, Nevada and Arizona also face. Unlike these areas, it has a mature and diversified economy that will cushion its current condition. The same should apply to Oregon.

New construction seems almost out of the question for many years in the boom states, so it is not without irony that lost real estate value, much of it concentrated largely in suburban settings, may be the salvation bringing recovery. As a result of diminished development, well located properties, listed well below replacement, will look like good buys to astute purchasers. These properties should be the first to clear the market. *Very* patient capital in the most troubled settings will experience absolutely no limit to these other opportunities presented. ■

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Supply Constrained Markets

BY DAVID LYNN, PH.D., CRE; BOHDY HEDGCOCK; JEFF ORGANISCIAK

CONSTRAINTS ON NEW SUPPLY in a given market reduce an owner's competition for tenants, which typically leads to higher occupancy, higher rent levels and faster rent growth. Supply constraints can stem from several sources and vary across both markets and time. This article discusses several aspects of supply constraints, including their origin and economics, and introduces a way of measuring this feature across property sectors and metropolitan areas.

DEFINING SUPPLY CONSTRAINTS

Supply constraints are broadly defined as limitations on the ability to deliver new development. These constraints generally fall into three categories, though some overlap among the categories is common.

Legal: Primarily zoning and land use regulations which restrict the location, quantity and/or pace of new development.

Geographic: Physical limitations such as waterways, steep slopes and soil conditions, which limit the location and/or quantity of new development. This category may also include the impact of existing development at a scale and density that limits available sites ripe for redevelopment.

Political: Local opposition to development which is not codified through local regulations but which nonetheless constrains development potential.

In addition to the above types of supply constraints, economic factors may also limit development feasibility. For example, the limited availability or high costs of construction lending are currently serving as a supply constraint, even in markets that are not typically associated with limited development opportunities. These types of constraints are generally temporary and adjust with the larger real estate market, however, and cannot, therefore, be counted on over the mid- to long-term to impact the overall supply dynamics.

ECONOMICS OF SUPPLY CONSTRAINTS

The ability of a market to increase supply in the face of rising demand varies across metro areas. If supply cannot be added to meet additional demand, then prices (rents, and eventually capital values) will rise accordingly. Figure 1

About the Authors

David Lynn, Ph.D., CRE, *is an economist, institutional real estate investor, and strategist with extensive experience in national and international markets. He is managing director of strategy and research and general portfolio manager at ING Clarion Partners in New York. Lynn is responsible for developing investment strategies and recommending strategic and tactical allocations across platforms and funds. He is the author of three books, the most recent are* Emerging Market Real Estate Investment *and* Active Private Equity Real Estate Strategy. *Lynn is a noted speaker and commentator and writes a regular column called "Capital Trends" for the* National Real Estate Investor. *He earned a doctorate degree in financial economics at the London School of Economics, a master's in business administration from the Sloan School at MIT, and a master's degree from Cornell University.*

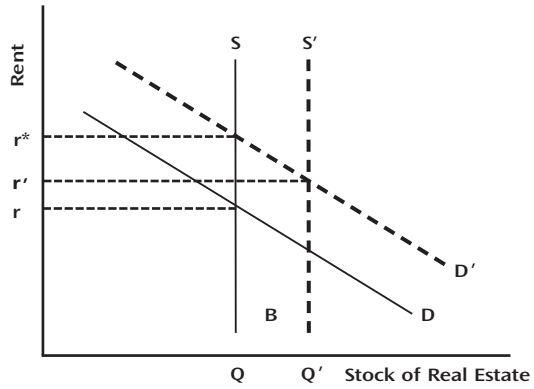
Bohdy Hedgcock *is a senior associate in the Research & Investment Strategy group at ING Clarion Partners, New York City. He joined the firm in 2007 and currently oversees bottom-up market analysis for private equity acquisitions and portfolio management. Prior to joining the firm he worked for more than seven years as a real estate consultant and urban planner. Hedgcock holds a master's degree in Real Estate Finance from New York University, a master's degree in urban planning from the University of Colorado, and a bachelor's degree from Southwestern University.*

Jeff Organisciak *is a senior analyst at ING Clarion Partners in New York City. He joined the firm in 2007, and has worked in the Research and Investment Strategy group, covering both the U.S. and Mexico. Organisciak holds a bachelor's degree in economics and political science from the University of Pennsylvania.*

illustrates the effect that supply constraints can have on market rents. With supply/demand equilibrium at the intersection of the S and D lines, the market clears at a rent, r. In the short term, the supply curve (S) is vertical, as supply is fixed and completely inelastic. If demand for real estate increases, the demand curve shifts from D to D', causing rents to shift from r to r*. On the other hand, if an amount of new supply, B, is added to the market, the supply curve will be pushed from S to S' and the market will clear at new rent level, r'. The amount of new supply that can be added directly impacts the corresponding change in rents. Therefore, markets with constrained supply should have greater rent growth during demand surges and a higher rent level given equal demand relative to markets with excess supply.

Figure 1

Short-Term Supply and Demand



Source: ING Clarion Research & Investment Strategy, based on Ball, Lizieri, MacGregor, The Economics of Commercial Property Markets, *1998*

MEASURING SUPPLY CONSTRAINTS

In economic theory, the *price elasticity of supply* (PES) is a measurement used to calculate a market's supply responsiveness to a change in price. It is defined as the absolute value of the Percentage Change in Quantity divided by the Percentage Change in Price over a given time period:

$$\frac{\%\ \text{Change in Quantity}}{\%\ \text{Change in Price}} = \text{Price Elasticity of Supply}$$

While not perfect, PES is a useful proxy for supply constraints. One can apply this concept to measure the PES for different property sectors and across metro areas. If the ratio is equal to one, there is a balance between supply and price, such that for every percent increase in price there is an equal percentage increase in new space. A ratio greater than one indicates elastic supply, where the quantity supplied increases by more than the percentage change in price. A ratio of less than one indicates a market that is inelastic (a value of zero would indicate a completely inelastic market), where the new quantity supplied does not keep up with percentage changes in price. A lower ratio generally indicates less elasticity, and therefore more supply constrained markets.

COMPARING PROPERTY SECTORS

The price elasticity of supply was calculated across 50 metro areas for three of the four core property types over the five-year period from 2004–2008 (Figure 2). Because real estate development entails time to plan, permit and build, supply is very inelastic in the short term (i.e. the supply lag). As expected, the five-year PES for all property sectors is below one, indicating a degree of inelasticity over this period. Office has the lowest PES while Industrial has the highest. These results are consistent with empirical observation, reflecting the longer construction process for office properties relative to the other property types.[1]

Figure 2

National Property Sector Supply Constraints (2004-2008)

Sector	Supply Increase	Rent Increase	PES
Office	7.4%	16.0%	0.46
Retail	9.1%	14.7%	0.62
Industrial	9.4%	11.3%	0.83

Source: ING Clarion Research & Investment Strategy, CBRE-Econometric Advisors, data represents cumulative change from end 2003Q4 to end 2008Q4

OFFICE

Extending this analysis to metro-level comparisons, Figure 3 shows the top five and bottom five office markets by price elasticity of supply. A complete ranking of the office markets tracked and their PES is included in

Figure 3

Top Five and Bottom Five Supply Constrained Office Markets (2004-2008)

Rank	Metro	Supply Increase	Rent Increase	PES	2008 Vacancy	Supply Constraint Value
1	New York	1.9%	26.9%	0.07	6.8	0.24
2	San Francisco	4.1%	60.7%	0.07	10.6	0.37
3	Long Island	5.5%	20.0%	0.27	9.7	0.40
4	Stamford	4.2%	14.7%	0.28	10.8	0.44
5	Los Angeles	3.3%	34.7%	0.09	12.8	0.45
46	Fort Worth	10.3%	-2.4%	4.28	13.6	1.80
47	Jacksonville	15.7%	4.1%	3.81	18.8	1.82
48	Edison	2.9%	-0.7%	4.36	20.8	2.06
49	Indianapolis	10.0%	1.7%	5.87	15.8	2.37
50	Minneapolis	1.6%	0.1%	12.58	15.4	4.48

Source: ING Clarion Research & Investment Strategy, CBRE-EA

Figure 4

Top Five and Bottom Five Supply Constrained Industrial Markets (2004-2008)

Rank	Metro	Supply Increase	Rent Increase	PES	2008 Vacancy	Supply Constraint Value
1	San Francisco	0.2%	33.3%	0.01	7.4	0.32
2	Orange County	1.9%	33.5%	0.06	7.4	0.35
3	Los Angeles	5.6%	31.6%	0.18	6.6	0.40
4	San Jose	0.7%	33.8%	0.02	9.6	0.42
5	New York	1.2%	19.4%	0.06	9.4	0.44
46	Riverside	39.1%	29.8%	1.31	14.5	1.52
47	Columbus	10.4%	6.6%	1.59	15.9	1.77
48	Atlanta	11.8%	5.0%	2.38	15.6	2.30
49	Chicago	13.4%	5.2%	2.58	14.8	2.40
50	Fort Worth	9.6%	1.1%	8.52	12.1	6.37

Source: ING Clarion Research & Investment Strategy, CBRE-EA

Figure 9. A slightly different methodology was used for metro rankings compared to national property sector rankings that took the 2008 vacancy rate into account. After removing outliers, both the PES value and the 2008 vacancy rate for each metro were scaled to the 50 market average.[2] Then, these two values were averaged to arrive at a value used in the rankings (Supply Constraint Value). The vacancy rate was taken into consideration in order to control for markets with above-average vacancy rates, which generally would not be considered supply constrained. The results for the office sector generally confirm common perceptions about supply constraints, as New York, San Francisco and Los Angeles appear among the most supply constrained in these rankings, while Fort Worth and Jacksonville are found near the bottom.

INDUSTRIAL

The industrial sector is characterized by relatively short construction periods and the ability to adjust supply pipelines quickly in the face of falling or rising demand. In addition, because industrial development is often located in peripheral locations, the concept of supply constraints is often considered less applicable. Nonetheless, an analysis of the PES of industrial markets also returns more or less expected results. The markets near the top of the rankings, including San Francisco, San Jose and Orange County, saw relatively limited amounts of new construction from 2004–2008, despite steep price increases. The markets near the bottom of the rankings, conversely, have seen large amounts of new supply and relatively small increases in rents (Figure 4). The Los Angeles market, which is often

referred to as one of the more supply-constrained of the industrial markets, ranks eighth in PES, but third overall. The full rankings are included in Figure 10.

RETAIL

Using the PES for the retail sector presents some additional challenges. Data providers typically focus upon the neighborhood and community shopping center segment of the retail sector. As such, the supply numbers do not account for the development of regional and super-regional malls. In addition, much of the retail development completed during our study period (2004–2008) was in fast-growing markets, developed to serve new residential communities. More than 45 percent of the new construction over the five-year period was concentrated in just ten metro areas, led by Phoenix, Atlanta, Chicago, Riverside, and Houston. Four of the five markets with the lowest PES had extremely high rent growth—19.1 percent or higher—over the five-year period. Raleigh, for example, tops the PES rankings due to an extremely sharp spike in rents, despite a 9.0 percent increase in new supply over the same period. Long Island, on the other hand, added less than 160,000 square feet of new space so, even with a decline in rents, ended up in the top five ranking. Markets at the top of the combined rankings had both low PES values and low vacancy rates. The top supply constrained markets generally had vacancy rates well below 6 percent in 2008, when the average was 10.4 percent. The least supply constrained retail markets had high vacancy rates that were well above average. The full rankings are included in Figure 11.

BENEFITS OF SUPPLY CONSTRAINTS

We believe that the dynamics of real estate supply greatly influence real estate investment returns. Markets where supply is constrained generally tend to have higher rent levels, greater rent growth and higher capital values. Figures 6–8 shows a comparison of the PES and the capital appreciation for the office, industrial and retail sectors, as measured by the NCREIF Index. The resulting trend line shows an inverse relationship between price elasticity and capital growth in all three sectors. The correlation between both series is negative for all three sectors, with Office having the strongest negative correlation of -0.53, Industrial with -0.29 and Retail with -0.11. In other words, those markets with a higher level of supply constraints have generated stronger capital appreciation over the study period.

In conclusion, as real estate markets begin to recover nationwide, we expect supply constrained markets to be among the first to show rent growth and capital value increases. Perhaps more importantly, these markets should also be better able to maintain capital values over a longer period. Therefore, an investment strategy focusing on supply constrained markets could potentially provide more durable income and stronger capital appreciation. ■

ENDNOTES

1. The apartment sector was not included in the property sector analysis because the impact of the condo conversion boom, which resulted in a declining apartment supply in many markets, skewed the results significantly. The hotel sector was also excluded due to the idiosyncratic nature of hotels as operationally intensive assets.

2. Each metro's PES and Vacancy rate was divided by the average, resulting in scaled values.

Figure 5

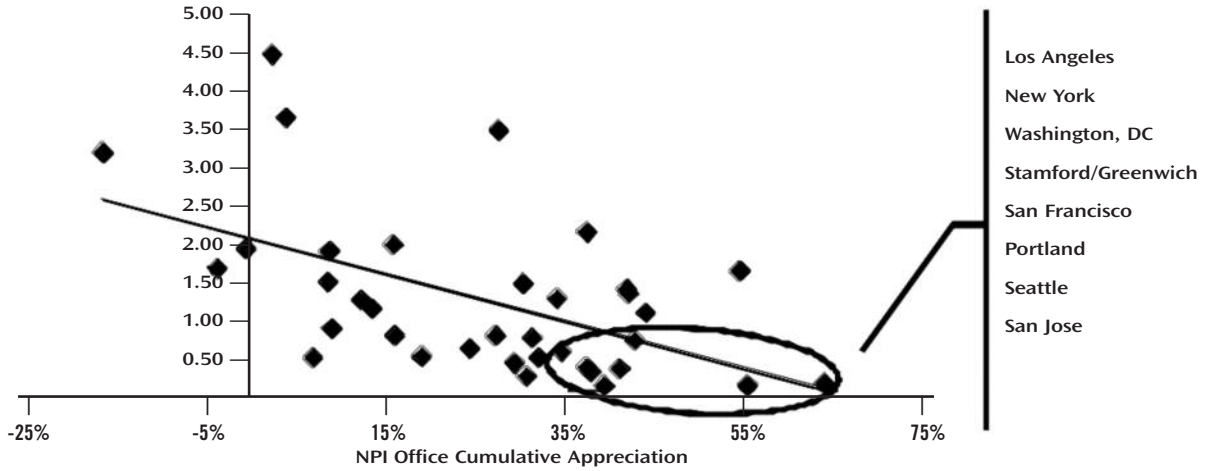
Top Five and Bottom Five Supply Constrained Retail Markets (2004-2008)

Rank	Metro	Supply Increase	Rent Increase	PES	2008 Vacancy	Supply Constraint Value
1	Orange County	3.0%	19.1%	0.16	4.9	0.27
2	San Jose	3.2%	10.9%	0.29	4.5	0.29
3	Long Island	0.6%	-3.6%	0.18	5.5	0.31
4	Los Angeles	5.2%	15.4%	0.34	6.1	0.38
5	San Francisco	2.2%	-2.3%	0.99	3.5	0.41
46	Trenton	6.3%	-11.1%	0.57	17	0.96
47	Detroit	6.1%	13.2%	0.46	17.9	0.97
48	Columbus	11.7%	8.6%	1.37	16.7	1.14
49	Denver	10.3%	-0.2%	41.82	12	1.16
50	Dallas	8.6%	4.0%	2.16	15.5	1.27

Source: ING Clarion Research & Investment Strategy, CBRE-EA

Figure 6

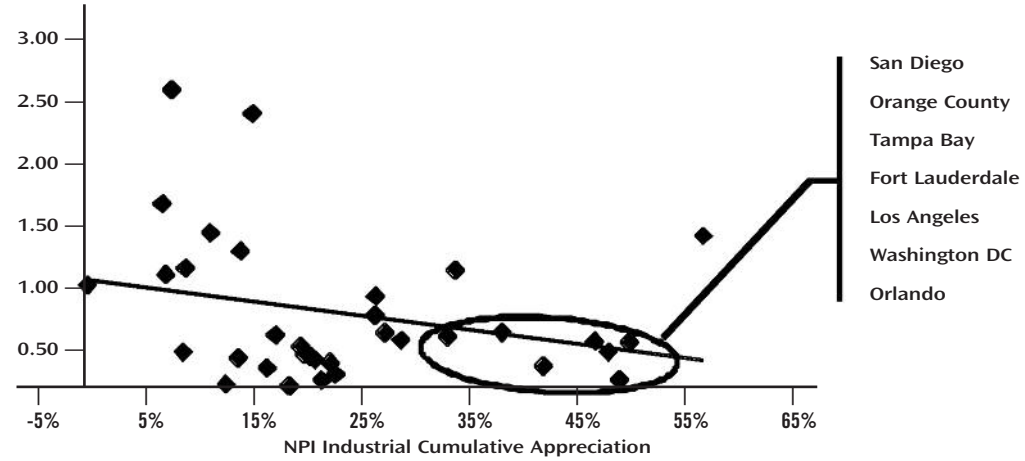
PES and NPI Office Appreciation (2004-2008)



Source: ING Clarion Research & Investment Strategy, CBRE-EA

Figure 7

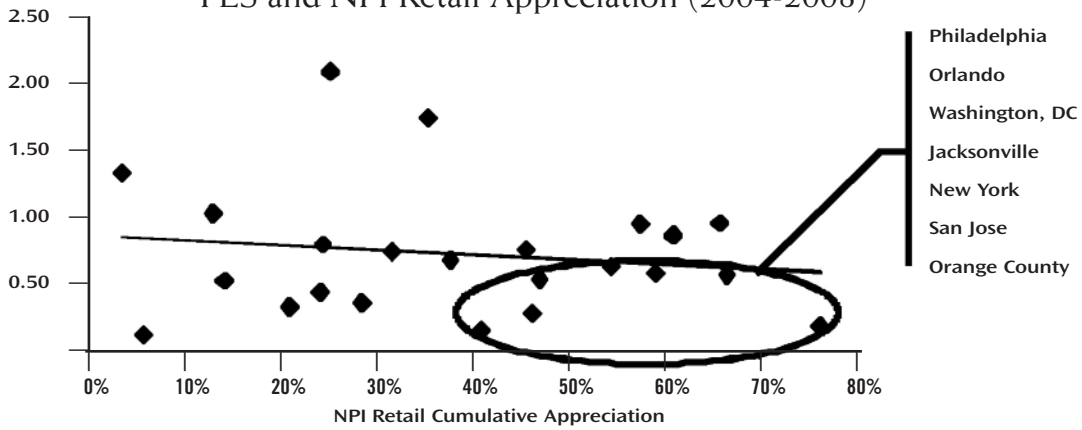
PES and NPI Industrial Appreciation (2004-2008)



Source: ING Clarion Research & Investment Strategy, NCREIF, CBRE-EA

Figure 8

PES and NPI Retail Appreciation (2004-2008)



Source: ING Clarion Research & Investment Strategy, NCREIF, CBRE-EA

Supply Constrained Markets

Figure 9

Office PES Rankings

Rank	Metro	Supply Increase	Rent Increase	PES	2008 Vacancy	Supply Constraint Value
1	New York	1.9%	26.9%	0.07	6.8	0.24
2	San Francisco	4.1%	60.7%	0.07	10.6	0.37
3	Long Island	5.5%	20.0%	0.27	9.7	0.40
4	Stamford	4.2%	14.7%	0.28	10.8	0.44
5	Los Angeles	3.3%	34.7%	0.09	12.8	0.45
6	Seattle	8.4%	27.8%	0.30	11.4	0.47
7	Portland	3.9%	15.9%	0.25	12.1	0.47
8	Denver	5.1%	27.0%	0.19	16.3	0.59
9	Washington, DC	13.6%	20.9%	0.65	12.2	0.60
10	Miami	12.7%	29.8%	0.43	14.4	0.61
11	Newark	2.0%	4.6%	0.43	14.8	0.62
12	Sum of Markets*	8.4%	16.3%	0.52	14	0.62
13	Oakland	3.6%	8.1%	0.44	14.7	0.62
14	Philadelphia	8.5%	12.0%	0.71	12.8	0.64
15	Hartford	0.4%	2.3%	0.18	18.2	0.65
16	Memphis	3.8%	8.8%	0.44	16.2	0.67
17	Orange County	9.1%	25.3%	0.36	17.3	0.68
18	Salt Lake City	18.4%	21.2%	0.86	13.4	0.71
19	San Jose	8.5%	16.7%	0.51	17.7	0.74
20	Chicago	5.6%	6.9%	0.81	15.2	0.75
21	Cleveland	3.3%	-3.6%	0.91	14.8	0.77
22	Houston	7.5%	5.7%	1.32	12.3	0.82
23	Tampa	14.5%	21.2%	0.69	18.8	0.83
24	Boston	5.0%	3.3%	1.55	11	0.85
25	Charlotte	13.2%	9.5%	1.39	12.7	0.85
26	West Palm Beach	20.7%	29.0%	0.72	20	0.88
27	Riverside	35.2%	44.1%	0.80	19.4	0.89
28	Fort Lauderdale	14.9%	11.8%	1.26	15.2	0.89
29	Atlanta	7.8%	7.3%	1.07	17.4	0.91
30	Kansas City	6.8%	4.3%	1.58	14.4	0.97
31	San Diego	20.7%	17.3%	1.19	18.2	0.97
32	Nashville	14.5%	7.7%	1.89	12.4	1.00
33	Raleigh	20.0%	11.1%	1.81	13.6	1.02
34	Sacramento	15.6%	11.0%	1.41	17.6	1.02
35	Cincinnati	10.9%	7.3%	1.48	17	1.02
36	Tucson	13.8%	8.1%	1.70	15.2	1.03
37	Baltimore	22.3%	12.1%	1.84	13.9	1.03
38	Dallas	6.8%	-5.7%	1.18	20.3	1.04
39	Phoenix	31.4%	31.1%	1.01	22.5	1.05
40	Las Vegas	52.4%	33.1%	1.58	17.4	1.07
41	Austin	18.7%	9.1%	2.06	17.5	1.22
42	Detroit	4.8%	-2.4%	1.98	22.1	1.35
43	Columbus	7.5%	2.4%	3.08	16	1.50
44	Orlando	28.8%	8.5%	3.38	15.5	1.57
45	St. Louis	5.9%	1.7%	3.54	14	1.58
46	Fort Worth	10.3%	-2.4%	4.28	13.6	1.80
47	Jacksonville	15.7%	4.1%	3.81	18.8	1.82
48	Edison	2.9%	-0.7%	4.36	20.8	2.06
49	Indianapolis	10.0%	1.7%	5.87	15.8	2.37
50	Minneapolis	1.6%	0.1%	12.58	15.4	4.48

Source: ING Clarion Research & Investment Strategy, CBRE Econometric Advisors, data from 2003Q4 through 2008Q4.
** Sum of Markets represents the sum of all markets in the CBRE Econometric Advisors coverage list, which includes additional metro areas not covered by ING Clarion Research & Investment Strategy.*

Supply Constrained Markets

Figure 10

Industrial PES Rankings

Rank	Metro	Supply Increase	Rent Increase	PES	2008 Vacancy	Supply Constraint Value
1	San Francisco	0.2%	33.3%	0.01	7.4	0.32
2	Orange County	1.9%	33.5%	0.06	7.4	0.35
3	Los Angeles	5.6%	31.6%	0.18	6.6	0.40
4	San Jose	0.7%	33.8%	0.02	9.6	0.42
5	New York	1.2%	19.4%	0.06	9.4	0.44
6	Tucson	14.7%	67.6%	0.22	7.5	0.47
7	Kansas City	4.3%	26.0%	0.16	8.5	0.48
8	Oakland	1.3%	11.1%	0.12	9.4	0.48
9	Long Island	1.3%	7.3%	0.18	9	0.51
10	Miami	5.7%	27.5%	0.21	10	0.57
11	Minneapolis	2.5%	8.0%	0.31	8.8	0.59
12	Salt Lake City	7.6%	16.3%	0.47	6.6	0.60
13	Houston	9.4%	20.8%	0.45	6.9	0.60
14	West Palm Beach	7.3%	36.8%	0.20	11	0.61
15	Newark	1.7%	7.0%	0.24	10.8	0.62
16	Charlotte	4.3%	12.4%	0.35	9	0.62
17	Portland	6.8%	16.9%	0.41	8.1	0.62
18	Tampa	6.3%	20.4%	0.31	10	0.64
19	Hartford	1.3%	5.1%	0.25	11.1	0.65
20	Sacramento	4.8%	30.4%	0.16	12.9	0.66
21	Denver	6.0%	22.7%	0.27	11.2	0.66
22	Fort Lauderdale	9.5%	24.1%	0.39	9.8	0.69
23	Philadelphia	3.3%	13.0%	0.25	12.7	0.71
24	Austin	8.5%	29.8%	0.29	12.3	0.72
25	Orlando	15.2%	34.7%	0.44	10.8	0.76
26	San Diego	11.2%	29.0%	0.39	12	0.78
27	Las Vegas	26.0%	39.9%	0.65	8.1	0.79
28	Seattle	10.5%	17.0%	0.62	9	0.81
29	Jacksonville	12.6%	39.9%	0.32	14.2	0.82
30	Cincinnati	6.7%	13.3%	0.51	11.7	0.85
31	Washington, DC	8.2%	17.3%	0.48	12.7	0.87
32	Stamford	3.1%	16.3%	0.19	18.2	0.90
33	Boston	3.9%	8.9%	0.44	16	0.98
34	Nashville	14.8%	23.6%	0.63	14	1.03
35	Cleveland	4.0%	6.0%	0.66	13.8	1.04
36	Sum of Markets*	8.9%	10.9%	0.81	11.8	1.06
37	Raleigh	5.7%	8.3%	0.69	14.4	1.09
38	Indianapolis	15.2%	15.6%	0.97	10.4	1.11
39	Detroit	3.3%	-9.3%	0.35	22.5	1.20
40	St. Louis	7.4%	7.2%	1.03	11.9	1.21
41	Baltimore	6.8%	8.7%	0.79	16.4	1.24
42	Edison	10.4%	8.8%	1.18	12.4	1.34
43	Phoenix	16.2%	16.0%	1.02	15.9	1.38
44	Memphis	13.9%	15.7%	0.88	18.9	1.41
45	Dallas	11.9%	8.9%	1.33	13.2	1.48
46	Riverside	39.1%	29.8%	1.31	14.5	1.52
47	Columbus	10.4%	6.6%	1.59	15.9	1.77
48	Atlanta	11.8%	5.0%	2.38	15.6	2.30
49	Chicago	13.4%	5.2%	2.58	14.8	2.40
50	Fort Worth	9.6%	1.1%	8.52	12.1	6.37

Source: ING Clarion Research & Investment Strategy, CBRE Econometric Advisors, data from 2003Q4 through 2008Q4.
** Sum of Markets represents the sum of all markets in the CBRE Econometric Advisors coverage list, which includes additional metro areas not covered by ING Clarion Research & Investment Strategy.*

Supply Constrained Markets

Figure 11

Retail Rankings

Rank	Metro	Supply Increase	Rent Increase	PES	2008 Vacancy	Supply Constraint Value
1	Orange County	3.0%	19.1%	0.16	4.9	0.27
2	San Jose	3.2%	10.9%	0.29	4.5	0.29
3	Long Island	0.6%	-3.6%	0.18	5.5	0.31
4	Los Angeles	5.2%	15.4%	0.34	6.1	0.38
5	San Francisco	2.2%	-2.3%	0.99	3.5	0.41
6	Newark	5.4%	12.7%	0.43	7.5	0.47
7	Raleigh	9.0%	72.8%	0.12	9.1	0.47
8	Tampa	6.1%	20.3%	0.30	8.7	0.49
9	Nashville	15.4%	19.5%	0.79	6.8	0.52
10	San Diego	6.4%	10.6%	0.60	7.9	0.53
11	Philadelphia	4.5%	24.0%	0.19	10.2	0.54
12	Seattle	7.4%	16.3%	0.45	9.1	0.55
13	Orlando	10.3%	17.7%	0.58	8.6	0.56
14	Washington, DC	7.5%	8.5%	0.88	7.1	0.56
15	Baltimore	7.3%	9.3%	0.79	7.7	0.56
16	Minneapolis	6.3%	8.8%	0.72	8.1	0.57
17	West Palm Beach	4.6%	11.1%	0.41	9.8	0.57
18	New York	6.5%	11.7%	0.55	9.2	0.58
19	Las Vegas	23.6%	20.2%	1.17	6.1	0.58
20	Fort Lauderdale	10.9%	28.9%	0.38	10.2	0.58
21	Edison	4.7%	-7.3%	0.64	8.9	0.58
22	Riverside	18.3%	39.2%	0.47	10.6	0.62
23	Portland	12.7%	14.3%	0.89	8.9	0.65
24	Sum of Markets*	9.1%	14.7%	0.62	10.4	0.65
25	St. Louis	7.2%	26.3%	0.27	12.8	0.68
26	Charlotte	17.3%	23.8%	0.73	10.7	0.69
27	Salt Lake City	11.8%	-2.6%	4.59	7.2	0.69
28	Jacksonville	10.2%	15.7%	0.65	11.3	0.70
29	Tucson	12.8%	25.8%	0.50	12.3	0.71
30	Miami	8.4%	4.7%	1.80	5.8	0.72
31	Wilmington	10.5%	24.8%	0.42	12.8	0.72
32	Austin	14.5%	13.7%	1.06	10.2	0.75
33	Oakland	8.2%	-0.5%	17.27	7.8	0.75
34	Phoenix	19.3%	23.4%	0.82	11.5	0.76
35	Sacramento	21.9%	28.4%	0.77	11.9	0.76
36	Cleveland	5.5%	25.0%	0.22	14.9	0.77
37	Chicago	8.5%	12.2%	0.70	12.5	0.77
38	Boston	7.5%	1.0%	7.81	8.1	0.78
39	Atlanta	13.3%	24.4%	0.55	13.7	0.79
40	Providence	3.1%	-8.2%	0.38	15.2	0.82
41	Houston	10.4%	10.6%	0.98	13.5	0.89
42	Kansas City	12.7%	13.4%	0.95	13.7	0.89
43	Cincinnati	8.4%	-8.2%	1.03	13.4	0.90
44	Indianapolis	10.4%	11.8%	0.87	15.2	0.95
45	Fort Worth	12.6%	17.3%	0.73	16	0.95
46	Trenton	6.3%	-11.1%	0.57	17	0.96
47	Detroit	6.1%	13.2%	0.46	17.9	0.97
48	Columbus	11.7%	8.6%	1.37	16.7	1.14
49	Denver	10.3%	-0.2%	41.82	12	1.16
50	Dallas	8.6%	4.0%	2.16	15.5	1.27

Source: ING Clarion Research & Investment Strategy, CBRE Econometric Advisors, data from 2003Q4 through 2008Q4.
** Sum of Markets represents the sum of all markets in the CBRE Econometric Advisors coverage list, which includes additional metro areas not covered by ING Clarion Research & Investment Strategy*

The Valuation of Mortgage Security by Italian Banks

BY MASSIMO BIASIN; AND HALBERT C. SMITH, CRE EMERITUS

INTRODUCTION

This article describes a research/consulting project conducted in 2008–09 on the residential mortgage lending process in Italian banks. The focus is on the methods and the procedures implemented by Italian banks in valuing real estate used as collateral for loans both in the loan origination and in the credit monitoring process. The project was carried out under the auspices of the University of Macerata, which has a strong program in banking and real estate finance. Impetus for the study resulted from the disastrous results of the holdings of mortgages and mortgage derivatives in United States banks. The question naturally arose as to whether or not these same risk factors, or others, could be at work in Italian banks, which hold an even greater percentage of their assets in residential mortgage loans—about 24.4 percent in 2008 compared with about 19.1 percent in U.S. banks. Smaller and medium-size Italian banks hold an even greater proportion of their assets (about 30 percent) in these loans.

Sponsors of the study included four banks and four bank foundations (similar to bank holding companies). The four banks have offices in the Marche region of east-central Italy.[1] In return for their cooperation the results of the study, including its recommendations, were made available to the four banks. The authors retained the right to publish articles from the study including processes, findings, and recommendations, without revealing the banks' proprietary information.

BACKGROUND

In order to collect data for the research, the authors developed a detailed questionnaire that was completed by the relevant officers of the banks. Additionally, the authors conducted two sets of interviews with the banks' officers. The questionnaire and interviews concerned the portfolios of mortgage loans of these banks, the procedures used to grant mortgage loans, the methods and techniques used to value the real estate serving as collateral, and the processes used to monitor these loans.

About the Authors

Massimo Biasin *is a professor of Financial Intermediaries at the University of Macerata, Italy. He is also a principal in the consulting firm of Biasin & Partners, with offices in Bolzano, Italy, and Munich, Germany, holding the equivalent designation of CPA. He received a doctorate in banking and finance in 1999 from the University of Venice, and served on the faculty of Catholic University of Milan prior to accepting the post at Macerata. Biasin also serves on the investment boards of several Italian REITs. He has held visiting positions at several universities in Europe and the U.S., and is a Fellow of the Weimer School of the Homer Hoyt Institute.*

Halbert C. Smith, CRE Emeritus, *is Professor Emeritus of Real Estate and Finance at the University of Florida. Prior to Florida, he was a member of the faculty at Ohio State University and was director of Economic Research for the Federal Home Loan Bank Board. He is a director of the Homer Hoyt Institute and is a Founding Fellow of the Weimer School of Advanced Studies in Land Economics. Smith was an active member of The Counselors of Real Estate for many years, serving on its board of directors from 1996–2000, and as editor in chief of* Real Estate Issues *from 1993–1998. In 1999, Smith received the Lum Award. He has taught and conducted research in several Italian and U.S. universities.*

Unlike the U.S. market experience, write-offs of mortgages in Italy have historically been limited and rarely have resulted in the distress of financial institutions, even in the recent financial crisis. The study included analysis of four principal aspects of the lending and valuation process:

1. The prudential regulation of mortgage lending and real estate valuation imposed by the supervisory authority (i.e., the Bank of Italy) in conformance with the recommendations of Basel II.
2. The valuation documents (appraisals) and procedures used by the banks in valuing the real estate that serves as security for mortgage loans.
3. The methods and procedures used by the panel of Italian banks to screen applications for new mortgage loans.
4. The procedures used in monitoring mortgage loans for continuing credit worthiness.

We believe that the insights we were able to gain in this study could be useful not only to the four cooperating banks but also to other banks and financial institutions in Italy and other countries. The recommendations should be helpful in evaluating an institution's own policies and procedures related to mortgage lending and, ultimately, in avoiding disastrous bank failures.

I. Regulatory Requirements for Mortgage Lending

1. FRAMEWORK AND DEFINITIONS

THIS SECTION DESCRIBES the regulatory requirements for mortgage lending promulgated by the Bank of Italy and emanating from Basel II recommendations. The rules for prudential vigilance apply to the screening process for new loans and the procedures for monitoring existing mortgage exposures. In particular, the rules focus on the operational limits (i.e., the loan-to-value ratio) and the acceptance of mortgages as credit risk mitigation instruments.

As in the U.S., the term *real estate mortgage loan* (*credito fondiario*) refers to a written loan agreement securitized by a mortgage on a real property used as collateral for borrowed funds. Such a loan enjoys privileged tax and regulatory treatments due to the social relevance of property investments. The purpose of the borrowed funds is to buy, build or renew a real property [Bregoli (1999)].[2] In order to be classified as a "real estate mortgage," the promissory note must contain the following provisions:

a. **Maturity:** The loan must have a medium- or long-term maturity (i.e., have an average duration of more than 18 months). With residential mortgages, the amortization term is usually between eight and 30 years.

b. **Mortgage:** A so-called "first grade" or senior mortgage is a pledge of property as collateral for the payment of the debt. Subordinated liens may also be accepted, but the loan-to-value ratio stated for regulatory purposes (see below)—which defines the maximum credit amount—must be calculated considering both the amount of the new loan to be granted and the residual amount of any previous mortgage.

c. **Loan-to-Value Ratio:** As described in detail next, the maximum loan amount is set by the Central Bank as a percentage of the current market value of the real estate pledged as collateral for the loan. Additional securities may lever the loan-to-value ratio under specific circumstances. The reason for this prudential rule is, of course, to limit a lender's expected loss on the credit in case of a borrower's default and subsequent foreclosure on the property serving as security for the loan.

If these provisions are fulfilled, the mortgage loan enjoys—as a medium- to long-term loan—a reduced "substitute" tax of 0.25 percent calculated on the borrowed amount; the "substitute" tax is levied in place of the ordinary, higher indirect taxes related to the cadastral (land) register and mortgage taxes. In addition to other favorable legal standards, mortgages pledging property are not subject to bankruptcy claw-back actions if they have been recorded at least 10 days prior to the bankruptcy declaration of the mortgagor.

Also, a mortgage holder cannot terminate the loan agreement and initiate foreclosure unless the borrower fails seven times, at several points in time, to make interest and principal payments when due under the promissory note.[3] Another protection for a mortgage borrower is that whenever he/she pays off at least one-fifth of the original loan amount, he/she is entitled to receive a proportional reduction of the mortgage or, more precisely, of the interest in the property used as security for the debt.

2. OPERATIONAL LIMITS: THE LOAN-TO-VALUE RATIO

As indicated previously, a main characteristic of real estate mortgages—with respect to other types of loans—is the fixed *loan-to-value ratio,* defined at the regulatory level by the banking supervisory authority, the Bank of Italy. At present, the loan-to-value ratio, calculated as the ratio of the original loan amount to the current market value of the property serving as security for the loan, cannot exceed 80 percent. However, if the debtor delivers additional collateral compliant with the legal standards defined by the same supervisory authority, the loan-to-value ratio may reach 100 percent. Examples of supplementary securities that may be admitted are bank guarantees, insurance policies or payment guarantees of other financial intermediaries [Bank of Italy (2008)].

3. RULES FOR PRUDENTIAL VIGILANCE

The rules governing mortgage lending apply at the international level—more specifically, at the European Union level. The Basel II framework specifies how mortgage securities must be evaluated as credit risk mitigation components affecting the capital adequacy of banks. In principle, the total minimum capital requirements for credit (as well as for market and operational) risk are calculated as a percentage of the risk-weighted assets of a bank. The assessment of risk (i.e., the risk-weight) is provided either by a bank's internal risk rating system or by considering a standard set of factors affecting credit risk (counter-party risk, country risk, duration, etc.). The total capital ratio must be no lower than eight percent. In this respect, real estate mortgages are included in the overall category of collateralized loans, even though prudential vigilance is largely achieved by specifying a mandatory loan-to-value ratio.

The prudential framework considers mortgage security as a credit risk mitigation instrument, as it reduces the risk of loss at default. Although mortgages do not reduce the probability of default of the debtor, they do provide a source of value that can be recovered through foreclosure on the mortgaged property. However, as a general principle, mortgages are only accepted as collateral if the property securing the loan is not "self-referring" to the exposure. This means that the prospects for repayment and recovery on the exposure must not depend primarily on the cash flows generated by the asset itself. The primary source of these cash flows is generally lease or rental payments, or the sale of the property [Basel Committee (2006, 2008)]. Despite this requirement, recognition and eligibility of mortgages as collateral vary based upon the type of the underlying property (basically, commercial versus residential real estate).

The credit risk mitigation capability of mortgages depends further on the methodology for calculating the capital requirements for credit risk adopted by the bank, one alternative being the so-called Standardized Approach, where credit risk is measured in a standardized manner, the other alternative being the Internal Ratings-based Approach (IRB)—split into the foundation or advanced method—which allows banks to use their internal rating systems for measuring credit risk.[4]

Most of the small- and medium-size Italian banks follow a standardized approach while only large banks adopt an IRB methodology, either the foundation or advanced IRB. In our specific case, three of the four banks of the sample follow the standardized approach, while one bank (a member of a larger bank group) has implemented the intermediate method (the foundation IRB). In the following section we therefore focus primarily on the recognition of mortgages as credit collateral in the standardized approach.

a. Rules for screening and loan origination

Prudential regulation in the standardized approach classifies mortgage loans as "claims secured by real estate." This approach includes only the part of the mortgage covered by the collateral that does not exceed the regulatory loan-to-value ratio limitation of 80 percent[5] and provides that the single loan arrangement fulfills the following requirements [Bank of Italy (2008)]:

1. The value of the property must **not** be highly correlated to the credit rating of the borrower.
2. The property must be appraised by an independent professional (appraiser). The appraised value cannot exceed the current market value of the asset, defined as the fair value under which the property could be sold under private contract between a willing seller and an arm's-length buyer at the date of valuation. The appraisal must be clearly and comprehensively documented.
3. The term "independent" refers to the requirement that the appraiser cannot participate either directly or indirectly in the loan origination or monitoring process.

4. The collateral must be disposable within a reasonable time frame. The bank must implement a continuous monitoring process of the value of the collateral.

   The bank must clearly document and address the types of real estate accepted as collateral within the overall lending policy.

5. The property must be adequately insured against damage and deterioration.

Residential real estate. Loans secured by mortgages on residential properties are generally risk-weighted at 35.0 percent (i.e., the asset amount on which the capital absorption rate is determined is calculated by multiplying the loan amount by .35). This percentage is used provided the following requirements are met:

1. The properties must be used or leased by the owner;
2. The prospects for repayment of the mortgage must not depend significantly on the cash flows generated by the same real estate used as security;
3. Although the loan amount cannot exceed 80 percent of the property value, a loan-to-value ratio of 100 percent can be achieved under the condition that additional securities such as bank or insurance guarantees are delivered and provided that the overall exposure complies with the following ratio: **Loan / [market value + additional securities] ≤ .80.**

In the case of properties already pledged by previous mortgages, the loan-to-value ratio must be calculated by adding to the new loan amount the residual exposure of the loans already in place. This requirement accounts for lien priority and for the reduced collateral value of the underlying property.

Commercial real estate. Loans secured by mortgages on commercial properties such as factories, stores, offices, etc., are generally risk-weighted at 50.0 percent (0.5) for the loan amount not exceeding 50 percent of the market value of the property. The residual loan exposure is fully risk-weighted at 100.0 percent. The reduced 50 percent risk rating also requires that reimbursement of the loan does not heavily rely on the cash flows generated by the real estate securing the exposure. The net effect of this requirement is that financing for income-producing real estate is not considered as a real estate mortgage *for risk rating purposes*.

b. Rules for monitoring

The rules for prudential vigilance require a continual monitoring of the loan-to-value ratio of the mortgage portfolio. This rule means that the market value of the properties must be reviewed or reaffirmed periodically. To accomplish this, banks must verify the value of the underlying property at least:

- every three years for residential real estate;
- every year for commercial real estate.

Appraisals may be used to carry out this requirement. However, banks may also implement statistical methodologies (e.g., databanks) to identify real estate values that need to be closely monitored. Should the statistical analysis show a significant decrease in the values of similar properties, the bank must commission a new appraisal. A new appraisal is, in any case, required every three years for loan exposures above three million euros or for those exceeding five percent of the bank's regulatory capital. Financial intermediaries also must check the value of the properties securing the mortgages more frequently (than the one- and three-year requirements) if real estate market conditions change significantly.

II. Valuation Procedures and Techniques

1. GENERAL SITUATION

OUR ANALYSIS SHOWED that the four banks do not have significant problems with loans in arrears or foreclosure. However, we believe that valuation procedures and techniques present potential difficulties for these, and undoubtedly many other, banks in Italy. Although most appraisals are undertaken by competent experts trained in fields such as architecture, engineering, geometry,[6] and perhaps accounting, these professionals often have limited education and training in valuation procedures and techniques.

The authors noted that in the appraisals provided to them there was little or no justification of crucial numbers such as selling prices, construction costs, incomes, or expenses of other, similar properties. Furthermore, the appraisals of residential properties contain few or no adjustments to the selling prices of comparable properties that have recently sold. The omission of adjustments for changes in market conditions, financing arrangements, location, and

physical differences (such as size, number of rooms, quality of construction, and equipment) renders such appraisals suspect to inaccurate or incomplete value conclusions. While the final value conclusions may be sufficiently operable for lending purposes in a relatively stable market, a downturn in the market of more than 5–10 percent could result in a difficult or, ultimately, an unacceptable level of nonperforming loans.

The consulting report recommended that the banks seek to provide the necessary education and training for employees to be able to supervise properly the efforts of appraisers, and to require appraisers to demonstrate knowledge of appraisal methods and procedures, as well as the technical knowledge of their primary professions (architecture, engineering, geometry, et al.).[7] We recognize, however, that educational programs in the valuation of real estate are in short supply in Italy. Therefore, it may be in the banks' interest, together with other banks and financial intermediaries, to promote the development of educational programs that would be available to anyone wanting to become a professional appraiser.

2. ORGANIZATIONS PROMOTING APPRAISAL STANDARDS AND EDUCATION

Some attempts already are being made to identify and promote the use of accepted appraisal methods and techniques in Italy. NOMISMA[8] and Tecnoborsa have developed a set of valuation standards for some types of commercial and industrial properties, although these standards are incomplete.

TEGoVA, the European Group of Valuers' Associations, attempts to promote the imposition of standards and the development of educational programs throughout Europe. It has published a book, *European Valuation Standards* (402 pages) that contains nine Valuation Standards, 14 Guidelines and eight Appendices. We believe that the acceptance of these standards and their widespread implementation in Italy would greatly benefit the safe and sound lending practices of banks and other financial intermediaries.

TEGoVA has two members in Italy, IsIVI (Istituto Italiano Valutazione Immobiliare) and GEOVAL (Associazione Geometri Valutatori Esperti). IsIVI has some training programs and materials, although they do not seem to be widely accepted and used. GEOVAL has a one-week program of appraisal education and training aimed primarily at geometers.

III. Screening

AS NOTED PREVIOUSLY, screening is the process of evaluating the application by an owner, or a buyer, for a mortgage loan. In the evaluation process, the bank needs to weigh three fundamental elements: (1) the likelihood of default by the borrower, (2) the amount of credit at risk; and (3) the potential loss in case of default.

1. PROBABILITY OF DEFAULT

When assessing the probability of default in screening a loan request, especially for the purchase of residential properties, a bank should consider the entire financial situation of the borrower, including the income available to the borrower to make the mortgage payments during the life of the loan, other debts that the borrower may have, and the stability of the borrower's income.

2. AMOUNT OF CREDIT AT RISK

The amount of a loan requested must not exceed the loan-to-value ratio requirement, as noted previously. The loan amount for single-family residential properties is usually well within even a small bank's capacity for granting a mortgage loan, but the exposure to all loans of a particular type should be kept in proportion to the bank's total assets and the percentages of other exposures.

3. POTENTIAL LOSS IN CASE OF DEFAULT

The potential loss resulting from default and foreclosure is a function of the probability of selling the property for at least its market value (as estimated by an appraiser) on the open market. The more general the type of property, the higher is this probability, and vice versa: The more specialized the type of property, the less probable is the probability. Single-family residential properties—the main scope of this study—usually carry a relatively high marketability, i.e., the probability of selling the property for at least its market value.

For residential properties, a bank should rely primarily on the income and assets of the borrower for repayment of the loan—not on the sale or rental of the property. The potential sale of the property in case of default and foreclosure is an important—but secondary—consideration in the screening process. In general, if the income and assets of the borrower are likely not to support the loan, the application should be denied. A bank should also consider whether there is a "margin of error" with the applicant's income and assets in terms of the general economy and the real estate market. If an applicant's income and assets barely meet his or her ability to repay

the loan, any downturn in the local market (emanating from either national or local trends) could endanger the loan. The recent market debacle in the U.S. illustrates the risk undertaken by financial institutions when loans are not evaluated carefully: defaults may occur in large numbers, putting financial institutions and even the general economy in peril.

a. The valuation phase by a qualified professional

Regulations require that a qualified and competent appraiser should perform the appraisal. While in the U.S. basic qualification is indicated by state licensure, and additional qualifications may be provided by professional organizations (such as the Appraisal Institute), there is no specific license law for appraisers in Italy and, as noted above, there is little education and training by professional organizations.

Nevertheless, the competence of appraisers of large, income-producing properties is quite high—equal to that of appraisers in the U.S. This situation results from the use of appraisers who are knowledgeable about financial matters, including the use of valuation techniques such as discounted cash flow (DCF) analysis. Ironically, one of the largest firms in Italy that appraises these types of properties is American Appraisal.

The more serious weakness in the Italian system pertains to the appraisal of one- to four-family residential properties. To correct or ameliorate this situation, we recommend that banks seek to promote the imposition of an appraisal license law and to strengthen the role of professional organizations in the education and training of real estate appraisers, especially residential appraisers.[9] While highly competent in their primary fields, many lack knowledge and competence in appraisal theory, methods and techniques.[10]

b. Evaluation of the job assignment

A bank is charged with assuring that the appraiser is indeed independent. After this basic requirement is met, and the appraiser submits an appraisal, a trained bank employee should review the document carefully to insure that correct procedures have been followed and that all appropriate procedures have been performed. He/she also should check to make sure that the appraiser has signed the appraisal and affirmed his/her independence and absence of conflicts of interest.

c. Validation of the estimated value

A bank is obligated to validate the estimated value in terms of three considerations:

1. Verification of the completeness of the appraisal and the appropriateness of the methods and techniques used. All numbers and calculations should be checked for accuracy, including the physical and legal descriptions of the property.
2. Informal validation of the estimated value from the employee-reviewer's own experience and knowledge of the relevant market. In addition, the reviewer could present in an appropriate form the following elements:
   (a) Location and type of neighborhood;
   (b) Market trends (stable, upward or downward) of the neighborhood;
   (c) Type of properties prevalent in the neighborhood;
   (d) Consistency of the estimated value with the range of values in the neighborhood as experienced by other loans granted by the bank.
3. Formal validation of the estimated value through comparison with other value sources. In Italy there are several databanks that can be used for this purpose. For residential properties the real estate databank "Osservatorio Mercato Immobiliare" (OMI) of the Agenzia del Territorio (Government Land Agency) is very useful. For "core institutional" properties and other large commercial real estate such as offices, stores and industrial properties, other databanks such as those of NOMISMA-IPD or SCENARI IMMOBILIARI combine various sources of market transactions and are very useful.

IV. Monitoring

THE BASEL II AGREEMENTS recommend that central banks develop required processes for monitoring banks' credit portfolios, with the goal of estimating the probability of losses that could occur in the event of insolvencies. Thus, monitoring is required both for loans on real estate and the properties that serve as security for the loans.

As noted previously, large banks can use internally generated estimates to determine their profiles of risk. Medium- and smaller-size banks use the "standard"

method, which requires a periodic monitoring of the values of properties that serve as security for loans. Two methods may be used for this purpose: (1) statistical analysis; and, (2) individual review of loans that present relatively high levels of risk.

As discussed in the section on Screening, databanks can be used (where available) for the statistical analysis in order to assess the current ongoing value, usually in terms of a value range, of the properties. Should the comparison between initial and current market value of the property lead to a significant negative difference, the bank should request a new appraisal in order to assess the current effective loan-to-value ratio and to monitor negative trends.

With respect to the second method of examining individual properties, banks may need to hire appraisers to review the original appraisals and determine whether, or to what degree, they are still applicable. This determination should include documentation on at least the following issues:

1. Has the relevant local market undergone significant changes in the last three years? In the case of either a positive or negative response, what are the elements in support of the analyst's contention? Are value changes consistent with changes in the rate of inflation? These conclusions should be documented.
2. Have the construction and physical characteristics of the buildings been modified during the last three years? In case of an affirmative response, in what ways have the buildings changed? Has the condition of the buildings improved or deteriorated? What modifications were made to the buildings?
3. Has the surrounding neighborhood and the urban area in general changed in the last three years? If yes, in what ways?
4. Is the value of the property estimated as at least equal to the value estimated by the first appraisal? The response should be explained and documented.

ADDITIONAL ELEMENTS RELATIVE TO COMMERCIAL PROPERTIES (CAPABLE OF PRODUCING INCOME)

1. Is the property capable of producing net income at least equal to the amount previously estimated? The response should be documented.
2. In the case of rental apartments, what are the occupancy and vacancy rates? Are they above or below the rates at the time the loan was made?
3. Is the property in good condition? Have repairs been made when needed, and is maintenance up to standards?
4. Has there been a turnover in tenants (commercial or residential), and how has turnover affected the property's net income?
5. For manufacturing or storage facilities, have the tenants changed? How and what effect do these changes have on the property's net income?
6. Is the property still well-located and well-designed for the purpose it was intended? Why or why not?

Based on the study of these Italian banks, the recommendations of Basel II, and the rules promulgated by the Bank of Italy, we recommended that each bank develop a schedule of properties in an appropriate spreadsheet or database program, with the appropriate time frames for monitoring. For banks not currently monitoring properties in this way, a major organizational effort will be required, with staff to implement and oversee the process. Specialists in residential, commercial, industrial, and office properties will be required. We also concluded that that the monitoring function of the banks should be completely separate from the lending department and staff.

SUMMARY AND CONCLUSIONS

This sample of banks does not have significant problems with mortgage defaults and foreclosures. Losses from nonperforming and underperforming mortgage loans are minimal, particularly in the residential sector. These banks, and in general Italian banks, did not engage in either the direct lending of subprime loans or the financing of other nonbank intermediaries. Furthermore, the downturn in the Italian economy did not result from a collapse of the residential real estate market, as occurred in the U.S., but rather from the collapse of financial institutions in the U.S. and the subsequent worldwide recession. Home values in Italy, in general, did not decline nearly as much as they did in the U.S.

The relatively small losses on residential mortgage loans probably can be attributed largely to the relative strict regulation of banks and other financial intermediaries and, more specifically, to the imposition of a specific loan-to-value ratio. In this respect, the proper assessment of the value of the securitizing property is a key element that contributes to the mitigation of the potential loss on

the loan that could occur in the case of default. Moreover, lending institutions are required to assess the quantity and quality of a borrower's income. Stability of income is a major factor considered in the lending process, as is the loan-to-value ratio. Banks are careful to evaluate the property, the neighborhood and the general economy of the surrounding area.

Careful analysis of both the probability of default and the value of the underlying securitizing property as a credit risk mitigation instrument has served Italian banks well. However, our analysis shows that, in general, the value estimates made by Italian appraisers are only weakly justified in terms of the:

- methods and techniques used in relation to the type of property appraised (residential, commercial, industrial or in construction);
- data used in terms of comparable properties and adjustments made to the prices paid for such properties.

Although we did not attempt to evaluate the actual values estimated, it stands to reason that the likelihood of value estimates not accurately reflecting the market and market expectations is undoubtedly greater if faulty means are used to obtain them. We believe that implementation of stricter appraisal standards will help improve the safety and the profitability of the sample banks, and that these same observations and recommendations undoubtedly apply to other banks—both domestic and foreign. ■

ENDNOTES

1. The financial institutions are: Bank of the Marche, the People's Bank of Ancona, the Cooperative Bank of Corinaldo, and the Savings Bank of Fabriano and Cupramontana. Bank of the Marche is part of a large bank group, the Saving Bank of Fabriano and Cupramontana and the People's Bank of Ancona are medium-size banks, and the Cooperative Bank of Corinaldo is a small bank.
2. The question of whether or not the loan amount must be dedicated to real estate investments is still controversial both at the theoretical and the jurisprudential levels. Contrary to most of the doctrine, in 2004 the Italian Supreme Court stated that the borrowed funds are not tied to a specific property [Constitutional Court, No. 175/2004].
3. Payments are overdue if made between 30 and 180 days after the contractual term [Bank Law No. 385/1993, Art. 38].
4. For a detailed overview and analysis of the Basel II framework please refer to Basel Committee on Banking Supervision, *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework – Comprehensive Version*, Bank for International Settlements, June 2006, and related amendments.
5. The loan amount exceeding the regulatory loan-to-value ratio cannot be classified as "claims secured by real estate."
6. In Italy geometry is a well-known and highly regarded profession. It is composed of persons who are highly trained in the measuring and cost estimation of buildings.
7. The consulting report submitted to the banks contained a section on appraisal methods and techniques for both one- to four-family residential appraisal and income property appraisal.
8. The letters NOMISMA do not stand for words. Rather, the name of this research organization is taken from the ancient Greek word *nomisma*, which means the real value of things.
9. Licensure is required for real estate agents.
10. An argument sometimes advanced by those opposed to licensure of appraisers is that the U.S., which has relatively strict appraisal licensure requirements, has not avoided severe market downturns. Appraisals without strict lending regulations have been ineffective in preventing market collapses, while in Italy the opposite has been true.

A Corporate Guide to Implementing a Sustainable Real Estate Program

BY COLETTE M. TEMMINK, CRE

INTRODUCTION

Sustainability is no longer thought of as a passing fad but rather a business imperative across the globe. As a result of changing energy prices, anticipated carbon regulation, stricter future building codes, cost containment, limited natural resources, or increasing pressure from stakeholders, the question has clearly changed from whether sustainable design should be considered to why one would choose not to consider it. Today, one must explain why a sustainable design has not been employed.

Even with the economic downturn, corporate real estate executives are continuing to focus on sustainability because it drives real bottom line benefits. Benefits include, but are not limited to, providing a healthier, productive work environment for employees and attracting new employees.

While current studies have shown the cost of implementing sustainability initiatives decreasing, the present economic environment makes it hard to win internal support for initiatives that have short-term payback periods, let alone longer-term returns on investment. In addition, there is a dearth of "sustainable" buildings available for occupancy. Despite these challenges, a company can still make progress on sustainability efforts by focusing on its occupied space and existing real estate practices.

BACKGROUND

As more and more companies focus on sustainability, their corporate real estate and facilities departments will play a crucial role in making it a reality. Given that commercial real estate accounts for 30–40 percent of the atmospheric emissions, up to 40 percent of the nation's energy, 60 percent of all electricity, 25 percent of all water, 25–30 percent of all wood and materials, and is responsible for 35–40 percent of the municipal solid waste stream, it should come as no surprise that corporate sustainability programs are largely focused on reducing this impact.

Corporate real estate organizations are the stewards of their companies' assets and are positioned to provide the leadership needed to preserve and protect the environment while still meeting the needs of employees,

About the Author

Colette M. Temmink, CRE, *leads the Americas corporate real estate interests of Sun Microsystems. Prior to joining Sun, Temmink served as vice president and general manager of Johnson Controls, where she was responsible for its real estate transaction and brokerage line of business for the West Coast. She also had executive responsibility for delivery of global facilities management and real estate solutions to major global corporations. Temmink's background also includes serving as vice president of Boeing Realty Corporation (BRC subsidiary), where she managed the company's strategic planning, acquisitions, dispositions, leasing and development portfolios. Temmink's expertise includes all aspects of facilities, property and asset management, real estate transactions, distressed asset workouts, large-scale complex redevelopments including entitlements, master planning, infrastructure development, public/private partnerships, and strategic corporate planning and outsource contracting.*

shareholders and customers. Sustainability offers corporate real estate executives an opportunity to provide long-term value to their organizations and to establish themselves as strategic business partners. Real estate can also achieve substantial gains cost effectively compared to other industries.

The Energy Independence and Securities Act of 2007 mandates that all new federal leases be in ENERGY STAR buildings and that renewals undergo energy-efficient upgrades beginning in 2010. And, corporate real estate executives and departments are rapidly beginning to follow suit. More than two-thirds (70 percent) of corporate real estate executives recognize sustainability as a critical business issue today, and 99 percent feel it is or will be in the future, according to a new survey of 231 corporate real estate executives in September and October 2009, released by CoreNet Global and Jones Lang LaSalle (full report at *www.joneslanglasalle.com/pages/SustainabilityResearch.aspx*).

Moreover, 89 percent of those polled consider sustainability criteria in making leasing decisions, with 46 percent always consider energy labels (such as ENERGY STAR or HPE), and 41 percent always considering green building certifications (such as LEED®, BREEAM®, IEMA, NABERS Energy, Green Star, GreenMark or CASBEE).

So where should most companies begin? This article provides seven essential steps to developing and implementing an effective real estate sustainability program for a property portfolio. Whether one is with a large or small company, the same seven steps can be applied to ensure that a sustainability program aligns with corporate objectives and delivers cost efficiency, brand enhancement, and ultimately, a competitive property and portfolio advantage.[1]

STEP 1. COMMIT

Identify the company's overall sustainability vision. Define goals in alignment with the stated corporate goals, (e.g., zero emissions) and commit to achieving them.

Regulatory compliance (where appropriate) should be a minimum commitment. Also, consider strategies that set the company apart from its competition and go beyond cost savings to explore future revenue opportunities.

Figure 1

Company Goal or Pledge	Sample Commitment
Carbon Reduction Targets	• Locational strategies • Alternative Workplace Implementation • BOMA's 7-Point Challenge *(www.boma.org/getinvolved/7point challenge/Pages/default.aspx)* • 2030 Challenge *(www.architecture2030.org)*
Sustainable Innovator and Leader	• Construct a high-profile, Platinum LEED®-certified headquarters • ENERGY STAR Challenge *(www.energystar.gov/index.cfm?c=challenge.bus_challenge)*
Cost Reduction and Operational Efficiency	• Utility Reduction Plan
Risk Mitigation	• Regulation Compliance

Source: Temmink, 2010

STEP 2. ORGANIZE FOR SUCCESS

The right organizational structure is crucial to ensuring success. Some suggested methods for organizing for success include:

- Understand organizational challenges and knowledge gaps that might impact effectiveness in this area;
- Focus on proven talent and/or external experts to help develop the company's plan;
- Create a framework for identifying, documenting and monitoring the execution plan;
- Appoint a sustainability manager to develop the plan and recruit site champions and project managers who are accountable for implementing the plan. Identify "champions" among employees with the business knowledge, implementation skills, and above all, the passion for sustainability;
- Consider establishing a corporate-level steering committee to ensure all parts of the organization are working in synch.

STEP 3. ESTABLISH PILLARS

Sustainability is about more than just occupying green certified buildings. Therefore, it is important to take a programmatic, holistic view across certain identified pillars such as, energy, water, waste, business processes, transportation, real estate transactions, employee engagement, etc. Economies of scale should be considered and a real estate sustainability program for an entire portfolio of buildings can be, and probably should be, established. The identified pillars should relate to the program commitment.

Below is an example of outlining Energy as a Pillar and the corresponding areas of focus, approach, sample initiatives and resources (chart):

Figure 2

Pillar	Major Areas of Focus	Approach	Sample Initiatives	Resources
Energy (~30% of Building Operating Costs)	Manage **Supply**: Rates and Renewables Manage **Demand**: lighting, HVAC, plug loads and water heating	Employee Behavior (no cost/low cost)	Educate, post signs, challenge employees to turn off lights and equipment when possible	BOMA and certain facility service providers offers free energy audits and sample energy-performance contract *ENERGY STAR Building Upgrade Manual*, BOMA Energy Efficiency Program *www.boma.org/BEEP*, *Flex Your Power Commercial Best Practice Guide* (*www.fypower.org/com/bpg*) *Source: Temmink, 2010*
		Operations & Maintenance	Eliminate/reduce weekend hours, day cleaning, adjust thermostats, inspect air ducts, lower temperature, insulate pipes, eliminate water heating altogether, weatherize building, adjust startup times to match ambient weather	
		Equipment & Technology	T8 or T5 bulbs, occupancy sensors/timers, LED exit signs, programmable thermostats, water-cooled systems, green roof, solar water heating	

STEP 4. MEASURE, MEASURE, MEASURE

Establish the baseline for each pillar category. Mapping and qualifying such inputs make it easier to effectively develop a strategy and set goals. Furthermore, establishing a baseline helps express the benefits to encourage action and sustain the program.

Because sustainability programs are ongoing, they are best assessed and reviewed through a performance management structure to ensure continual improvement and success. This enables the continual benchmarking of a building's operations against itself to find inconsistencies. Metrics must directly relate to the company's sustainability pillars and should include both indirect and direct green house gas (GHS) emissions, where appropriate. Once metrics are identified, baseline measurements should be collected—preferably two years' worth of data.

Because most corporate portfolios are diverse across multiple geographies, one needs to identify which properties are relevant for the sustainability program. The initial baseline data might be more difficult to obtain if the program includes leased properties.[2]

Information that will help assess a building's areas of environmental impact should be collected and the baseline for each pillar (in addition to costs) established, from which savings are tracked going forward. Further operational factors that might impact the baseline can be determined. Additionally, it is important to evaluate the products the company purchases; many of those products might provide opportunities for "greening"—paper towels, light bulbs, refrigerators, furniture, flooring, paint, to name a few.

Analyze the baseline data using a recognized scoring system to assign ratings. Numerous scoring resources are available to serve as a guide for capturing the appropriate metrics, including ENERGY STAR (under the U.S. Environmental Protection Agency), the United States Green Building Council's (USGBC) LEED® certification program and others.[3]

STEP 5. PRIORITIZE

The next step is to identify and prioritize sustainable opportunities. Start small (e.g., a five percent reduction in energy and/or water use this year) but aim high (e.g, LEED-EB: O&M certification within three years). Develop plans that prioritize payback periods of initial opportunities so as to fund future initiatives (i.e., self-funding program). Often, the initial initiatives are employee- and/or customer-facing, with short payback periods (low cost/no cost). Examples of these would include recycling programs, standardized temperature set points, building energy audits, faucet aerators, daylight de-lamping, etc.

Many low cost/no cost initiatives can improve the performance of older buildings beyond that of a new building that is not properly managed.

Process improvements, technology modifications, property operations, customer experience, and employee suggestions should be included in the list of priorities. One should also consider operational strategies, quick fixes and equipment upgrades across the pillars to capitalize on the synergies among different measures. In new construction, this approach is referred to as integrated design.

When evaluating and prioritizing opportunities, it is helpful to use a standard template that includes the financial analysis (lifecycle cost and savings, government incentives), difficulty and time of implementation, and business and environmental benefits.

Whether a company funds sustainability with a pre-identified pool of funds (compare green initiatives against each other) or as part of the capital budgeting process (comparing against all company opportunities), a standard approach will help. Analyze the risks, benefits and long-term consequences of these initiatives with the same diligence as any other business opportunity.

STEP 6. IMPLEMENT

Successful implementation requires team ownership, best-practice sharing and employee engagement. With the portfolio plan in place, specific property implementation plans (including timelines) should be developed, as well as a training program for site champions and participants. Regular meetings should be held between site champions and the sustainability manager to monitor progress and program risks. As properties improve their measurement scores, the strategies can be evaluated and applied to other properties.[4]

Site champions should oversee daily operations, track and document information. Tracking results helps drive results, establish accountability and sustain the program. Documentation is important and can assist with future communication efforts as well as in future attempts to obtain green building certifications. It is worth noting that sometimes it more difficult to document achievements than to actually achieve them, so reporting paperwork should not prevent making real strides.

Guidelines and training strategies should be developed for each office location (e.g., site playbooks). Each office or group of offices should be assigned environmental or technical managers to help develop the environmental guideline and drive compliance.

Encourage employees to take greater responsibility for the environment by showing them the impact their actions have. For example, knowing that office buildings generate more than 300 pounds of waste per employee per year can be good motivation for throwing a piece of paper into the recycling bin instead of the trash.

There are many tools that can help provide increased employee engagement. For example: company Web sites, *Wiki Tools*, Million Acts of Green and Individual Carbon Footprint Calculators at *www.earthlab.com/*, etc.

STEP 7. REPORT AND COMMUNICATE SUCCESS

It is important to communicate both the intent and results of a sustainability program to internal and external stakeholders. Sustainability is a popular topic offering many opportunities to engage stakeholders. One can take advantage of these opportunities and develop a plan to communicate successes internally to senior leadership, the commercial real estate organization, operations staff, employees, and external constituencies.[5]

To effectively communicate, messages need to be delivered in terms people can understand—money saved, environmental mitigation, etc. Energy and water efficiency in particular, can be easily and immediately expressed in these terms. For example, converting kilowatt hours saved into equivalents such as cars taken off the road or forest acres preserved. Working in collaboration with internal functions like the corporate sustainability function and marketing, or external partners, can be of benefit in leveraging existing communication vehicles to publicize successes.

One challenge to note is that some components of green real estate management do not provide direct cost savings. Therefore, one might consider bundling the less tangible benefits to create a more powerful message about the organization's ability to impact global climate change.

In the past few decades corporate real estate executives have seen many paradigm shifts in the knowledge required to execute their jobs effectively (e.g., transaction managers to business unit relationship managers, managing internal talent to managing outsource contracts). Sustainability is yet another shift where executives are being asked to lead within their respective

organizations. But as the global dialogue around sustainability continues to build momentum, the real estate sector is woefully underrepresented given the industry's ability to impact sustainability performance. Now is the time for real estate executives to lead the change in their organizations. Whether the driving motivation is cost savings or saving the environment—or both—now is the time to act. Hopefully, this guide will help those who are beginning this journey. ■

ENDNOTES:

1. Schinter, John and Diane Vrkic, "Sustainability: A Guide for Corporate Real Estate Executives," Jones Lang LaSalle, 2008.
2. Ibid.
3. Ibid.
4. Ibid.
5. Ibid.

ADDITIONAL RESOURCES:

Energy Policy Act Tax incentives at *www.energy.gov/taxbreaks.htm*.

Database of State Incentives for Renewables and Efficiency at *www.dsireusa.org*.

LEED for Buildings checklist: *www.usgbc.org/ShowFile.aspx?DocumentID=3621*.

Sustainable Business Forum Self-Assessment at *www.resourcesaver.org/file/toolmanager/O16F4770.pdf*.

ENERGY STAR Portfolio Manager for energy and water benchmarking at *www.energystar.gov/benchmark*.

Betterbricks Energy Management Checklist at *www.betterbricks.com/graphics/assets/documents/Energy_Management_Ckecklist_Form.pdf*.

Eco-SAT Green Purchasing Self-Assessment Tool at *www.cec.org/files/PDF/ECONOMY/Eco-SAT-2004_en.pdf*.

Muldavin, Scott R., *Value Beyond Cost Savings: How to Underwrite Sustainable Property*, March 2010.

Residential Energy Efficiency: A Model Methodology for Determining Performance Outcomes

BY PIERCE JONES, PH.D.; UJJVAL K. VYAS, PH.D., J.D.; NICHOLAS TAYLOR, M.S.; AND M. JENNISON KIPP, M.S.

INTRODUCTION

The current climate of opinion in both the residential and commercial sectors for new and existing building stock gives a prominent role to energy efficiency as a policy tool. Executive and legislative branches of government at both the state and federal levels are considering and adopting policy options to valorize energy efficiency in the service of everything from national security to curbing global warming to creating a green economy. While the authors support this activity, it should be noted that actual evidence regarding the benefits or outcomes of most funding initiatives or policy activity in this area remains difficult to assess meaningfully.[1] Furthermore, the authors stress the need for validation of post-occupancy performance and demonstration of persistence of energy efficiency benefits attributable to energy efficiency initiatives and policy activities.

This article addresses a vital piece of the energy efficiency puzzle by providing a simple, yet viable, method for assessing actual performance using one well-known and nationally important green building rating system for homes: ENERGY STAR. Two previous articles, one by Jones and Vyas published in *Real Estate Issues,* addressed some basic program evaluation issues and identified the need for a more robust method for determining how ENERGY STAR-certified homes were actually performing relative to comparable non-ENERGY STAR-certified homes.[2] These earlier studies, though preliminary, pointed to challenges associated with data collection and analysis, both in terms of relative performance in the same geographical location and, more important, over significant time intervals.

To recap the conclusions of the previous articles, the ENERGY STAR homes in the sample (Mentone subdivision, Alachua County, Fla.) performed better than comparable non-ENERGY STAR homes (i.e., they used significantly less energy as measured in equivalent kilowatt hours to account for both electricity and natural gas consumption), but they suffered from a significant deterioration in performance over time. The earliest attempt (Smith and Jones) to quantify performance of a large set of certified homes showed that the sample ENERGY STAR homes were performing approximately fifteen percent better than non-certified homes. This showed the potential significance of ENERGY STAR to lenders and homeowners as a mechanism to decrease homeownership hard costs over the life of the home. This conclusion was of particular import for lower-income households. Therefore, results of the second study (Jones and Vyas) came as a surprise when the study showed that the difference in energy use between the same sets of comparison homes five years after the certification date was statistically insignificant. This cast doubt on the persistence of the earlier positive conclusions. If the performance of ENERGY STAR homes decayed measurably compared with non-ENERGY STAR homes within five years, any attempt to use the certification as the basis of underwriting advantages was in doubt. The future benefits to subsequent purchasers as well as value to a lender would need to be reassessed, internalized and properly discounted into any currently claimed benefits.

A final conclusion was an acknowledgment that even though this vein of research was of value, it could not provide any answers as to what could be causing or directly correlated to the decaying performance rate of the ENERGY STAR homes. Nor did this comparison over time allow for a more generalized method of comparing homes (or a specific subset of homes delineated by location or

Residential Energy Efficiency: A Model Methodology for Determining Performance Outcomes

About the Authors

Pierce Jones, Ph.D., *earned his graduate degree in mechanical engineering from the University of Florida in 1980, and is a professor there in the Agricultural and Biological Engineering Department in the Institute of Food and Agricultural Sciences. He directs the Program for Resource Efficient Communities, an interdisciplinary, self-funded, entrepreneurial group that promotes the adoption of "best design, construction and management practices" in new, master-planned residential developments. Under his direction, the Program for Resource Efficient Communities is directly participating in land development and building projects that adopt and demonstrate "green" practices.*

Ujjval Vyas, Ph.D., J.D., *is the principal of Alberti Group, a Chicago-based interdisciplinary consultancy specializing in emerging issues in the building industry including sustainability and high-performance buildings, building information modeling, and alternative project delivery systems. He has lectured and published extensively on legal and business risks in the sustainable building marketplace, covering large-scale policy, insurance, legal and technical issues. Vyas holds a Ph.D. from the University of Chicago and a J.D. with honors from Illinois Institute of Technology/Chicago-Kent College of Law.*

Nicholas Taylor *has worked as research associate with the Program for Resource Efficient Communities since 2005, focusing on analysis of utility consumption data to identify effective energy efficiency measures. Taylor works with utilities, government entities and UF/IFAS Cooperative Extension Service agents to tie conservation program performance to policy initiatives.*

M. Jennison Kipp *is a resource economist and project manager with the Program for Resource Efficient Communities. She conducts applied outreach and research projects on water, energy and land-use efficiency in Florida, with a focus on accounting for the full costs and benefits of different resource management scenarios. Kipp's recent projects to inform policy decisions in this arena include estimating the carbon costs associated with alternative water supplies in the Tampa Bay region and quantifying water and energy consumption indicators for evaluating performance in the residential housing sector. Kipp holds master's degrees in applied economics and environmental pollution control from The Pennsylvania State University.*

census block) to the larger population of homes in the municipality or region. Further, the acquisition of data for making comparisons over time proved arduous, a process leading to long time lags for adequate analysis and policy application. Recognizing these challenges, the authors set out to craft a methodology that would allow for a more robust use of existing energy consumption data and provide meaningful insights on the relationship between a building's particular energy efficiency attributes and its demonstrated (positive or negative) performance. This evaluation of ENERGY STAR-certified homes over time (ten years) is the first such detailed analysis of performance known to the authors.

Traditionally, information related to the energy performance of residential units was confounding to researchers due to the myriad of variables that could affect the energy use of the residential stock over time. Geography, climate, weather, construction quality, construction practices, local codes, market preferences for size and amenities, and many other attributes made generalizing over time about energy use patterns difficult or impossible. Even more confounding has been the human behavioral element associated with a particular residential unit or cohort. The energy use pattern of a family of five with two teenagers is significantly different from a family of three though their housing attributes may be virtually identical. The only way to normalize for some of the variables of both human behavior and building structure was to develop a methodology that compares the housing under analysis with a sufficiently large number of baseline units, effectively expanding the number of units with which a housing cohort is compared to the maximum extent possible. We believe we have achieved this and that the results have important policy implications. While it does not explain the building science, behavioral and other factors affecting energy performance, this expanded baseline methodology improves the precision and confidence of energy performance comparisons across housing cohorts, and therefore is a useful tool for program evaluation and policy applications.

Previous policy options were often based on biased, inappropriate or anecdotal claims about the benefits associated with residential building energy efficiency improvements. As with many policy choices, the aspirational rhetoric is given more importance than the verification of performance. This is not to say that there has been a lack of attempts to understand the fundamental building science associated with residential energy efficiency.[3] On the

contrary, the authors wish to stress only that the sector is highly disaggregated and full of conflicting incentives that in their judgment do not offset the additional transaction costs or risks of validating performance. Verifying the outcomes should be a prerequisite for meaningful public policy creation and continuing implementation. In the public sector, a lack of useful data regarding outcomes only exacerbates the allocative (through direct and indirect subsidization or grants) and productive (through regulatory or public sector-directed research) inefficiencies. In the worst case scenarios, money is spent on programs that do not provide real benefits, while truly beneficial energy efficiency options are not recognized or promoted. The private sector also needs verifiable outcomes in order to make the proper cost-benefit calculations for deploying energy efficiency expenditures. Here, too, there is real interest in energy efficiency options since decreased hard costs can benefit both developers and consumers.

MODELING ENERGY USE AND PERFORMANCE BASELINES

Measures of housing performance (potential and/or realized energy savings) are used to evaluate energy efficiency programs and financially reward energy utilities and, in turn, their customers. Given this incentive structure, the appropriate context, construction, and application of energy use baselines and specification of models to estimate energy savings are critical.[4] Sophisticated engineering, econometric and mixed-model approaches have been developed to improve evaluation of utility energy efficiency programs. Using these standard methods, energy analysts are deriving performance baselines, analyzing actual consumption data, estimating demand response to specific policies and programs, and calculating associated savings. When funding is sufficient, the analyses attempt to quantify effects considered external to the policies or programs themselves (e.g., free rider, spillover and rebound). However, the relatively high cost of such complex modeling approaches and the variability of estimates across utilities and programs justify continued pursuit of simple, valid, transparent, and replicable methods for evaluating performance. In this study, we use a regression analysis approach that aims to satisfy these key methods criteria—simple, valid, transparent, and replicable—while generating robust estimates for the performance measures of concern.

Engineering models to project or estimate energy savings from energy efficiency interventions (such as the EnergyGauge® software that underpins the nationally utilized Home Energy Rating System [HERS] Index)[5] are typically constructed at a micro-scale and are particularly useful for delineating the upper bounds of energy-efficiency potential based on a building's structural, mechanical and electrical attributes. Output from such models serves as benchmarks for measuring changes in performance after an appliance or equipment upgrade and/or for evaluating a new home's actual performance. They are particularly useful when constructed and applied at a whole-house systems level. Energy performance measures derived from engineering models alone, however, are inherently limited in scope of application as they cannot account for post-occupancy factors independent of the home's engineered design (such as weather, economic conditions, and resident demographics and behavior). Furthermore, they cannot easily be scaled up to provide valid expectations about and estimates of performance at the community or utility level, a very significant problem when attempting to generate policy directives.

Conversely, econometric models are typically constructed at a macro-scale using self-reported electric utility data on energy consumption and savings (e.g., those supplied to the Energy Information Administration [EIA] via Form EIA-861 by the utilities themselves[6]). These models often include data on critical energy demand determinants such as service population characteristics, utility rates and climate data to estimate program impacts within and across samples of utilities. While such econometric approaches are well-established and typically robust, they are designed for use at a macro level and results are dependent on the quality of the aggregate utility data.[7] Given these limitations, they may not generate truly meaningful estimates of energy savings and cost-effectiveness when scaled down to the individual household or program level. Furthermore, methods used by individual utilities to calculate energy savings vary and the original data used to estimate key model parameters often are not readily accessible to the empirical research community. Finally, given uncertainties about the derivation of key independent variables applied in large scale econometric models, it is difficult to know whether changes in energy consumption via programs are being measured using the most appropriate performance baselines.

ANNUAL COMMUNITY BASELINES APPROACH

To improve estimates of energy savings attributable to a particular policy or program, the authors used a micro-scale multivariate regression method based on a census of utility and home property appraisal data. This approach

was applied to: 1) establish new measures of energy performance by constructing annual community energy consumption baselines (ACBs) against which actual (metered) household-level energy consumption is compared for the years 2000–2009; and 2) estimate energy savings attributable to a subdivision of ENERGY STAR-qualified new homes[8] using ACB estimates as the foundation for year-over-year performance comparisons.

The authors' proposed methodology is unique[9] in that it: 1) defines a new household-level energy consumption baseline measure that they believe produces more accurate and appropriate energy performance measures; 2) uses a census of publicly available data for the population of interest, merging metered utility data with property appraiser data; and 3) uses these census data with the new baseline measure to construct a simple model for evaluating household-level energy performance. For this study, these ACB performance measures are used to estimate energy savings attributable to a subdivision of ENERGY STAR-qualified homes.

The critical element that distinguishes these energy performance measures is that they are calculated and interpreted using baselines that effectively normalize for community energy consumption patterns in any given year. Year-over-year household consumption is evaluated relative to the community baseline, so residuals estimated from the ACB regression directly reflect the authors' definition of meaningful and relevant energy performance measures (i.e., energy savings). Furthermore, because the annual performance measures themselves are derived from a regression-adjusted baseline approach, the data are normalized in such a way that year-over-year performance of individual households or select building cohorts can be compared directly. This prevents the performance impacts and other energy conservation programs from being overstated or obscured as a result of non-program effects (such as economic conditions, rebound, free riders and free drivers, spillover, and so on). In light of debate surrounding the need to account for these effects, which are "notoriously difficult to measure," the authors think that this feature of our model is particularly valuable.[10]

To construct and run the authors' model estimating the relative performance of a cohort of ENERGY STAR homes[11], data were requested and obtained from three sources in Florida: the Alachua County Property Appraiser (ACPA); Gainesville Regional Utilities (GRU) and the Clay Electric Cooperative (CEC). ACPA provided data on the physical characteristics, location and sales of all properties in Alachua County (current as of November 2009). GRU and CEC provided monthly, account-level, electric and natural gas consumption data for each residential and commercial customer from 2000–2009 (See Figure 1).

In identifying data to use in the analysis, model variables were selected based on corresponding data availability, accuracy, and their expected relation to residential energy consumption. Monthly, account-level, electric and natural gas data linked to the premise, customer identification number and physical address were selected from the GRU database. Physical address, building type, U.S. Department of Revenue (DOR) tax code, parcel number, number of bedrooms, number of bathrooms, conditioned floor area, year built, and census block code were selected from the ACPA database. Physical address was used to link and merge the two databases to create the final analysis data set.

Figure 1.
Original Databases Used in Final Analysis Data Set

Alachua County Property Appraiser Database	Gainesville Regional Utility Consumption Database	Clay Electric Company Consumption Database
Parcel Number	Premise Number	Premise Number
Physical Address	Customer Number	Customer Number
Building Type	Physical Address	Physical Address
DOR Code	Meter Read Date	Meter Read Date
Number of Bedrooms	Service Type	Service Type
Number of Bathrooms	Billed Consumption	Billed Consumption
Conditioned Area		
Year Built		
Census Block Code		

Source: Alachua County Property Appraiser, Gainesville Regional Utilities and Clay Electric Cooperative

CLEANING AND SCREENING

Single-family detached homes were selected from the ACPA database, representing the population of comparison homes. Monthly electricity and natural gas consumption data were used to create annual subsets for each home in calendar years 2000–2009 (excluding 2007[12]). For each annual subset, data were screened to ensure that homes in the analysis sample had at least 350, and no more than 380, days of electric consumption data on record and that the

necessary property appraisal data were available.[13]

Monthly electric and natural gas consumption were combined and expressed in units of equivalent kilowatt hours (ekWh) to quantify total annual energy use. Annual consumption data were normalized to represent the full calendar year by taking average daily use for the number of days recorded (between 350 and 380 days) and multiplying by 365. Residential units consuming less than 3,000 ekWh per year or more than 65,000 ekWh per year were considered to be either unoccupied or outliers, and were excluded.

ACB MODEL SPECIFICATION

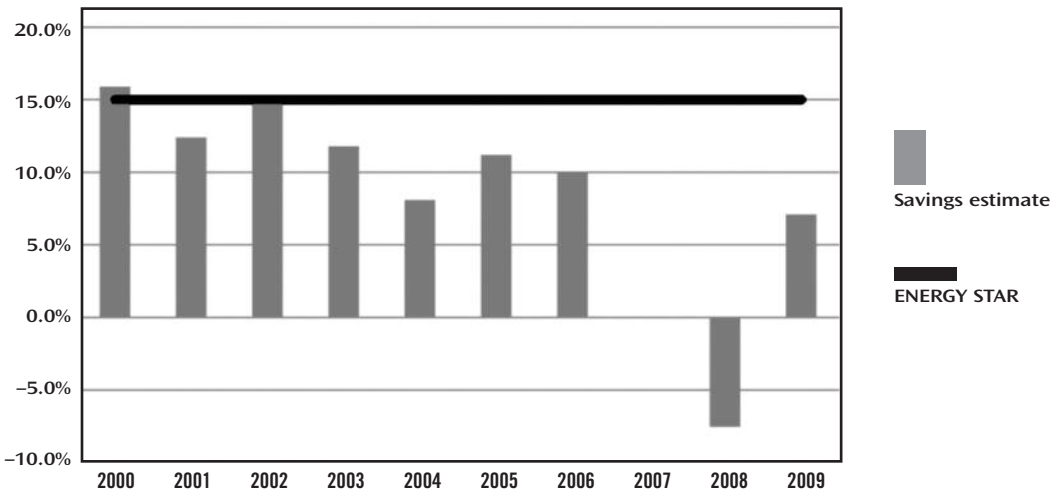
Each calendar year data set was analyzed using the multivariate regression techniques that generate predicted home energy use values for each residential unit in the census. The number of bedrooms and bathrooms, and square footage of conditioned area are important explanatory factors for energy consumption because they are indicators of the number of people living in each home and HVAC demand, respectively. Using a principal components (PC) analysis, we transformed these highly correlated yet distinct measures of home size into a single "size factor" predictor variable. Year built is also an important energy use predictor variable as it captures the building code under which the home was constructed and the common building practice used in that particular time period. To transform it to a more meaningful continuous variable for use in regression, year built was converted to home age by subtracting year built from the analysis year (2010). The U.S. census block code was selected as a geographic indicator for resident behavior and demographics. These variables (size factor, age and census block code) were used to complete a regression analysis (using the equation below), resulting in predicted energy use values for each home in each of the analysis years. These predicted values represent the annual baselines for absolute energy consumption in each year for each residential unit.

$$\textit{Energy Consumption} = \beta_0 + \beta_1(\textit{Size Factor}^{PC}) + \beta_2(\textit{Age}) + \beta_3(\textit{Census Block}) + \epsilon$$ where $\textit{Size Factor}^{PC} = f(\textit{conditioned area, \# of bedrooms, \# of bathrooms})$

Residuals derived from this ACB regression are interpreted as annual energy performance measures for each residential unit in each year; mathematically, they are calculated as actual, minus predicted energy use. A second series of regressions, with residuals as the dependent variable, is used to estimate the magnitude and statistical significance of energy savings of the ENERGY STAR subgroup of homes. This series of regressions for each year essentially tests whether the performance of ENERGY STAR homes (N=84) is significantly different from the performance of the full population of homes in the Gainesville area (N=36,872).

Figure 2

Annual Percent Savings Estimates for Mentone Homes Constructed in 1998–1999



Annual Percent Savings of ENERGY STAR homes estimated using Annual Community Baseline regression methodology. The ENERGY STAR line delineates the 15% greater energy efficiency that approximates the performance required to achieve the ENERGY STAR certification (which applied in the years the homes were built). See www.energystar.gov/index.cfm?c=new_homes.hm_index.

DISCUSSION AND CONCLUSION

Results (summarized in figures 2 and 3) are consistent with the "decay rate" conclusion in the Jones and Vyas study. While the ENERGY STAR homes met the program's performance threshold of 15 percent savings in 2000, this relative performance declined over time and was actually negative (i.e., the homes consumed more energy than predicted by their respective baselines) in 2008. In years when performance was positive, estimates of absolute energy savings range from a high of 3,130 ekWh in 2000 to a low of 1,259 ekWh in 2009. Further data collection and analysis is needed to understand why this degradation is occurring and to explain the relative roles that structural integrity and occupants' behavior play in energy performance. While the study population in the earlier comparison analysis was limited to several hundred, the current analysis accounts for 84 ENERGY STAR-certified homes in the Mentone subdivision *and* the population of 36,872 homes in the region in calculating its performance measures. More important, using this regression methodology to establish the appropriate baseline for a community begins the process of worthwhile analyses that can create, alter, inform and evaluate policy in this energy efficiency arena.

Figure 3

Annual Community Baseline Results for Mentone Homes

	Predicted Energy Use (ekWh)	Actual Energy Use (ekWh)	Absolute Savings (ekWh)	Percentage Savings (%)
2000	19,650	16,520	3,130	15.9***
2001	20,098	17,605	2,493	12.4***
2002	20,469	17,424	3,045	14.9***
2003	20,775	18,326	2,449	11.8***
2004	20,577	18,913	1,664	8.1*
2005	19,806	17,592	2,214	11.2*
2006	18,950	17,062	1,888	10.0*
2007	—	—	—	—
2008	13,645	14,663	–1,018	–7.5
2009	17,720	16,461	1,259	7.1*

Annual Community Baseline output is reflected as average predicted use for the Mentone homes (N=84) relative to population of homes in the region (N=36,872). *** indicates statistical significance at 1% level; ** would indicate statistical significance at 5% level; * indicates statistical significance at 10% level. The predicted use minus actual use gives an absolute savings estimate, which is then converted to a percentage savings estimate. Data for 2007 were rejected due to changes in the data management system at Gainesville Regional Utility and the resulting corruption of utility data.

The ENERGY STAR certification for homes is fundamentally different from the ENERGY STAR commercial certifications. Home certifications are done only once, while commercial certifications generally must be done annually. The performance of an ENERGY STAR home has been assumed to continue indefinitely once certification has been achieved. Our analysis shows that while ENERGY STAR homes did perform better than predicted based on the ACB analysis, this assumption about the persistence of ENERGY STAR benefits is not satisfied in the Gainesville, Florida, region. We expect that any public policy or private sector decision-making that shares this assumption is likely to be inappropriate or misguided.

Attempts at a cost-benefit analysis of the value of ENERGY STAR home certifications cannot be done without the kind of results obtained in this study. Initial expenditure premiums must be contextualized with rigorous performance evaluation to determine if the developer, homeowner or lender is properly placed to gain a net positive value. In our example, Figure 2 shows the average Absolute Savings Estimate for the first five years of the Mentone homes is 12,781 ekWh. The cost of electricity in the Gainesville area is .15 dollars/kWh (natural gas is significantly less expensive and thus is ignored here to obtain the most conservative outcome).[14] Therefore, the cost of energy saved over the first five years would be approximately $1,917 (12,781 ekWh x .15 dollars/kWh for a home using only electricity for all energy consumption). This back-of-the-envelope calculation suggests that if the initial cost of the improvement to obtain ENERGY STAR home certification is greater than $2,000 dollars, the certification may be counter-indicated. If we increase the time element beyond five years, the cost-benefit analysis looks less compelling.

The data also suggest that any subsequent purchaser five years after the ENERGY STAR certification might obtain negligible benefit. In fact, the certification may provide an unrealistic expectation of performance. Any seller or broker who is continuing to tout the ENERGY STAR certification as the source of a greener or energy efficient home may be treading on shaky ground as well. Even developers who are well-meaning and hope to provide real benefits to their home purchasers may inadvertently fail to deliver if they rely on ENERGY STAR certifications to obtain energy efficiency performance.

Some of the one million ENERGY STAR-certified homes are no doubt exemplary in their capacity to deliver energy efficiency over long periods of time. These make sense

both for public policy and as a signal to the marketplace to deliver better performing housing stock. Unfortunately, the lack of any large-scale validation of ENERGY STAR-certified home performance means that we are left with only anecdotal, incomplete or biased information on which to make crucial decisions in confronting the problem of residential energy efficiency and providing appropriate signals to the market for the value of energy efficiency.

The Program for Resource Efficient Communities at the University of Florida is actively looking to contribute content to a national database that could be of use to researchers of all types. The authors already have begun the process of expanding the data sets and methodology beyond Gainesville to other cities in Florida and nationally.[15] Only by extending the scope of the data sets and the robust methodological application can we hope to further the cause of reaping the true benefits of an ever-expanding population of energy efficient housing in this country. ■

ENDNOTES

1. Woods, James E., Richard Sweetser and Davor Novosel, National Center for Energy Management and Building Technologies *Task 6-02: Scientific Outreach Program Pilot*, July 2009. Though this study concentrates on a number of basic problems in the measurement and analysis of commercial building performance, it is a good examination of many similar problems in the residential market. In fact, the problems associated with the residential market are even more severe since the variability of this building stock and the lack of any concerted data acquisition is even more pronounced.

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9. For a detailed explication of the methodology, please see Pierce Jones, Nicholas Taylor, M. Jennison Kipp, and Hal S. Knowles, "Quantifying Household Energy Performance Using Annual Community Baselines," *International Journal of Energy Sector Management*, 2010, Vol. 4, Issue 3, Emerald Group Publishing. Forthcoming, accepted for publication July 13, 2010.

10. Heins, S., "Energy Efficiency and the Specter of Free-Ridership: Is a Kilowatt Saved Really a Kilowatt Saved?" *Sustainable Facility*, 2006, available at: *www.sustainablefacility.com/Articles/Feature_Article/aaf65d08bd629010VgnVCM100000f932a8c0*, last accessed March 25, 2010; and H. Herring, "Confronting Jevons' Paradox: Does Promoting Energy Efficiency Save Energy?" *International Association for Energy Economics Newsletter*, 2006, Vol. 15, 4th Quarter, pp. 14–15.

11. The cohort of homes examined in this study were among the earliest ENERGY STAR homes built in the Gainesville, Florida, area. These homes were constructed in 1998 and 1999 in the Mentone subdivision. Homes in this study were compared only with homes built before Jan. 1, 2000, to reduce the potential complications due to changes in common building practice or building codes related to energy efficiency.

12. Calendar year 2007 is omitted in this study due to data quality concerns. A change in the collection and cataloging process at Gainesville Regional Utilities led to incomplete or unreliable data in the transferred dataset.

13. Utility data used for this study is collected as billing data for each home. Due to logistical limitations, billing data is collected on different days for homes throughout the utility district. These discrepancies in data collection can lead to abnormalities in the final aggregated values for annual energy use. The techniques used to normalize abnormalities in the data provide a simple and effective solution for creating more reliable annual values.

14. For pricing assumptions for natural gas (.05 dollars/ekWh) see *www.gru.com/Pdf/calculating NaturalGas.pdf*. For pricing assumptions for electricity (.13 dollars/kWh) see *www.gru.com/Pdf/calculatingElectric.pdf*. We assume .15 dollars/kWh to remain highly conservative.

15. The authors are willing to share data sets used in this and other related studies with any interested researchers.

Are Condos Securities? How to Determine When You Have a Security

BY PATRICIA S. WALL, J.D., CPA, MBA, ED.D.; AND LEE SARVER, PH.D.

INTRODUCTION

Condominium hotels, converted hotel/apartment condos, resort condos, and even exclusive-occupancy luxury passenger ships are some of the ventures attracting real estate investors today. At the outset, it is necessary to distinguish among other real estate ventures, e.g., cooperatives (co-ops), or tenancy-in-common (TIC) interests. Cooperatives are single, non-profit corporations with the corporation, rather than shareholders, holding title to the property. Shareholders have a proprietary lease to their units, in addition to shares in the corporation. Conversely, condo owners have a fee simple in their interest.[1] With TICs, the title is held by a separate legal entity, e.g., a corporation, partnership or limited liability company (LLC).[2] On Jan. 14, 2009, the Securities and Exchange Commission (SEC) responded to a "no action request," holding TICs to be securities.[3] However, this article will discuss more traditional condo interests in hotels and apartments where relevant law is yet to be settled.

Unfortunately every deal is not as good as it may first appear to be. In a weak economy, real estate purchasers increasingly seek ways to void purchases, as deals become less attractive because of factors such as falling prices or costlier financing. One recent pretext to void such purchases is to claim securities fraud. If the real estate venture in question is a security, a purchaser can claim that the seller should have registered it as such under state or federal securities law, unless an exemption applies. If the seller did not do so, the purchaser may be able to void a now-undesirable deal by claiming securities fraud. Moreover, the person controlling the selling company and those involved in the sale may be personally liable.

It is often more difficult than one might suppose to determine whether something is a security. Not only are stocks and bonds securities, but many other things are as well. For example, a company in Florida once sold parts of orange groves mainly to out-of-state investors. Another company proposed to nurse the trees and sell the fruit for a share of the proceeds. In *Securities and Exchange Commission v. W. J. Howey Co.*,[4] the United States Supreme Court found that the companies had offered and sold securities in the form of an "investment contract."

About the Authors

Patricia S. Wall *is an attorney and CPA. She received a juris doctor in 1979 from the University of Tennessee College of Law, a master's in business administration in 1987 from the University of Tennessee (Chattanooga), and a doctorate degree in education from Tennessee State University in 2004. Wall is presently an associate professor of business law at Middle Tennessee State University, and also has taught accounting and business law at the University of Alabama in Huntsville, St. John's University (St. Vincent's College) and Hofstra University. Licensed to practice law in Tennessee and New York, Wall has worked in private practice as an assistant district attorney and for the Tennessee Departments of Commerce and Insurance, Employment Security, Labor, and Safety.*

Lee Sarver *is an associate professor of finance in the Economics and Finance Department at Middle Tennessee State University. He received his doctorate in economics in 1987 from the University of Tennessee.*

While investment contracts do not exist in the real world, this was the name the court coined for a transaction that it deemed should be considered a security. It also devised a formula for determining when these transactions exist. Since the *Howey* case, courts have found investment contracts involving all kinds of things, including contracts for raising earthworms, cutting demo records and even certain real estate sales involving resort condominiums.[5] This article will addresses the characteristics of a security under the *Howey* test, and analyze how this might apply to various real estate transactions, e.g., those involving condominium hotels.

The *Uniform Securities Act,* which has been adopted by a majority of states, is modeled after Section 2(1) of the *Securities Act of 1933* ("the Act").[6] Thus, state judges following the *Uniform Act* often refer to federal securities cases even when analyzing state cases. Accordingly, several federal securities cases involving real estate transactions will be addressed in this article, as well as *Securities and Exchange Release No. 33-5347,*[7] which concerns criteria for whether the offering of condominiums or similar units will be considered securities. Finally some recent lawsuits will be discussed.

ANALYSIS OF A SECURITY

Is it Called Stock?

It appears that one of the most self-evident cases for coverage by the Act is where the instrument is called a stock. Sections 2(1) of the 1933 Act and 3(a) (10) of the *Securities Exchange Act of 1934* define a "security" to include "stock" and some other instruments.[8] However, the U.S. Supreme Court in *Landreth Timber Company v. Landreth* found the label "stock" insufficient to establish coverage under the Act.[9] Specifically it found that, even if an instrument were labeled as stock, coverage could only be invoked when the instrument also possessed all the usual characteristics of stock (enumerated below), as identified in *United Housing Foundation, Inc. v. Forman*.[10] Then, investors may assume that federal securities laws apply, with all their investor protections.

If the instrument is called stock and also has the characteristics of stock, the *Landreth* Court found that no further analysis was necessary. However, if these criteria are not satisfied, the analysis should continue to consider the "economic realities," which calls for the *Howey* investment contract analysis.

DOES IT POSSESS THE CHARACTERISTICS OF STOCK?

Dividends

Does the instrument have properties to warrant the name "stock?" Is there a right to receive dividends, dependent upon the proportional distribution of profits derived from the efforts of others?

Negotiability

Is the instrument negotiable? Are there limitations on transferability, e.g., qualifications for membership or requirement for the approval of transfers by the Board or general members? Under the *Uniform Securities Act* an instrument is not a security if a transfer is coupled with an assignment of a proprietary lease.

Ability to be Pledged or Hypothecated

Can the instrument be given as security to a creditor without losing title or possession?

Proportionate Voting Rights

Are voting rights awarded in proportion to the number of shares owned? In *Grenader v. Spitz*, voting rights depended upon the number of shares owned. The number of shares (and thus voting rights) that members of a cooperative could purchase depended upon the size and location of their apartments.[11]

Price Appreciation

Can the instrument rise (or fall) in value? In *Grenader*, the court considered the prospect of price appreciation to be inconsequential compared with members' primary motive of acquiring a residence. Moreover, it reasoned that any such appreciation would not be the result of the efforts of others (a là *Howey*).[12]

ECONOMIC REALTIES: THE *HOWEY* INVESTMENT CONTRACT ANALYSIS

If an instrument is called a stock and has the characteristics of stock, no further analysis is necessary, according to *Landreth* (discussed below).[13] There exists a security which must be registered, unless an exemption can be found. If these conditions are not satisfied, it becomes necessary to apply the "economic realties" or *Howey* investment contract analysis.[14] The Supreme Court in *Howey* set forth a four-part test to determine the existence of an investment contract. There must be: (1) an investment of money or value in (2) a common enterprise with (3) the expectation of profit (4) through the entrepreneurial or managerial efforts of others. In the present context (and as discussed in connection with the *Forman* case below), purchases of cooperative real estate interests

are typically motivated more by the need for housing than by the prospect of making a profit.

REVIEW OF FEDERAL CASES

In *United Housing Foundation, Inc. v. Forman,* the United States Supreme Court considered the issue of whether shares in a cooperative apartment corporation were securities.[15] The cooperative had issued shares of stock that entitled the purchaser to an apartment in the complex. The court determined that merely calling an instrument "stock" was insufficient to determine whether it actually was a security under either the *Securities Act of 1933* or the *Securities Exchange Act of 1934.*

The *Forman* Court noted that the label of "stock" is used customarily, and is convenient. However, it found that closer analysis was necessary in order to determine whether these shares were securities. The court applied two tests: (1) the characteristics of stock; and (2) the economic realities of the situation, i.e., the substance of the transaction.

With regard to the first test, the *Forman* Court identified five characteristics associated with stock. These were: (1) the right to receive dividends dependent upon proportional distribution of profits; (2) negotiability; (3) the ability of the stockholder to pledge or hypothecate the stock; (4) the conferral of voting rights in proportion to the number of shares owned; and (5) the capacity of the shares to appreciate in value. It found that the shares in the cooperative were not securities within the Act because they did not possess any of the usual characteristics of stock. It then passed to the second test—the "economic realities" of the situation—laid out in the *Howey* case. This test considered "whether the scheme involved an investment of money in a common enterprise with profits to come solely from the efforts of others."[16]

Considering the economics of the situation, the *Forman* Court decided that the transactions did not involve securities:

> "What distinguishes a security transaction . . . is an investment where one parts with his money in the hope of receiving profits from the efforts of others and not where he purchases a commodity for personal consumption or living quarters for personal use."[17]

In *Grenader v. Spitz*, the Second Circuit considered whether purchasers of stock in a cooperative were issued securities.[18] The purchasers were allowed to lease the apartments, but shares were not transferable except in connection with transfer of the lease itself, which required approval by the cooperative association (the other shareholders). Voting rights depended upon the number of shares owned, which in turn depended upon the size and location of one's apartment. Purchasers could profit by selling their shares and lease.

The *Grenader* Court analyzed the instruments under the *Forman* "economic realities test" to determine that the purchasers' interests were not securities. The court noted that the tenants were motivated primarily by securing residential property for their own use rather than by profit. An examination of the offering plan, the proprietary lease and the subscriptions agreement showed that the stock purchase was connected to the lease and not to making a profit. However the court noted that this case differed from the *Forman* case because the instruments could be sold at a profit. The court reasoned that:

> "[The] transaction here essentially involves the acquisition of a residence. Just as the purchaser of a private and family residence is not unaware that he may eventually sell his property at a profit or loss depending upon the vagaries of the real estate market, so the proprietary lessee of a privately owned corporation cannot be unconscious of the fact that upon its disposal he will gain or lose depending upon the same market factors."[19]

The *Grenader* Court found the shares not to be stock, noting that no dividends were payable to tenants. Although the shares could be transferred with the underlying lease, the purchasers were not free to negotiate them separately. The shares could be pledged or hypothecated only for a loan to purchase an apartment.

Lastly, the Second Circuit discounted the argument that the interests were "investment contracts." It emphasized again that there was nothing in the record to support a finding that the investors were attracted by the prospect of earning a profit. Rather, any profit was incidental to acquiring a residence.

In *Landreth Timber Company v. Landreth*, the Supreme Court considered whether the sale of all the stock in a sawmill company involved the sale of securities.[20] Citing the *Forman* decision, it found that the label "stock" was insufficient to determine coverage under federal securities laws. It found that even if an instrument were labeled as stock, coverage could be invoked only when the

instrument also had all the usual characteristics of stock, as identified in *Forman*.[21] Then, the investor may assume the federal securities laws, with all their investor protections, apply.

In interpreting *Forman*, the *Landreth* Court found that, as long as the instrument is called stock and possess the characteristics of stock, further analysis is unnecessary, but that absent such characteristics, the analysis should extend to the "economic realities" (*Howey*). Thus, the *Landreth* court clarified the *Forman* decision.[22]

SECURITIES AND EXCHANGE RELEASE NO. 33-5347

In Release No. 3-5347, the SEC stated that the offering of condominium units under any one of the following circumstances will cause the offering to be viewed as an offering of securities in the form of investment contracts, and thus require registration and investor protection under the Act.[23]

1. The condominiums, with any rental arrangement or other similar service, are offered and sold with emphasis on the economic benefits to the purchaser to be derived from the managerial efforts of the promoter, or a third party designated or arranged for by the promoter, from rental of the units.
2. The offering of participation in a rental pool arrangement; and,
3. The offering of a rental or similar arrangement whereby the purchaser must hold his unit available for rental for any part of the year, must use an exclusive rental agent or is otherwise materially restricted in his occupancy or rental of his unit.

RECENT LAWSUITS

Forty investors who bought condo hotel units in Las Vegas are suing the developers of Signature, a hotel and condominium complex. The developers are a partnership of MGM Mirage and Turnberry Associates of Aventura, Florida. The hotel units convert to hotel rooms when vacated by the owners to generate revenue, but the owners claim the revenue is not what was promised by the salesmen.[24]

A similar case has been filed in Palm Beach County, Florida, by twelve buyers who bought condo units in The Resort at Singer Island. The developer in this case is WCI Communities of Bonita Springs, Florida. Here too, the rental revenues are not as promised. Investors view the hotel as competing with them for rental income. Obviously, the hotel makes more money renting out its own rooms, rather than the rooms vacated by the condo hotel owners. Thus, there appears to be a conflict of interest for the developers, who should be acting as fiduciaries for the condo hotel owners.[25]

Plaintiffs' attorneys in both of these cases assert that developers violated federal and state securities laws by selling unregistered securities. Further, they are asking that the sales be rescinded and buyers be made whole by a return of their money with damages. Under state "blue sky laws," disclosure is the primary determinant of the investor's being able to make an informed decision concerning risks. Courts might find liability based upon overstatements by the sales agents concerning the anticipated rental revenue. Additionally, they could determine that the whole condo hotel vehicle is a security, since it meets the classic *Howey* test discussed above—an investment of money in a common enterprise engaged in with the expectation of profiting from the managerial efforts of others.

These cases are still pending, and the decision to allow arbitration in the Las Vegas case was affirmed by the Nevada Supreme Court. However, in a second case filed by other Signature condo owners, which was removed by the developer to federal court, the result was different. A federal magistrate declared the arbitration clause unconstitutional, finding it too one-sided in favor of the sellers. Further, arbitration would prevent the award of punitive damages.[26] Thus, it appears that different results are possible from different forums. Attorneys and developers are monitoring these cases closely. A decision against the developers could change the market for condo hotels.[27]

AVOIDING LITIGATION

A number of states including Tennessee have enacted legislative exemptions for cooperative interests that would ordinarily be considered securities and are required to register as such. *T.C.A. 48-2-103 (a) (12)* provides such an exemption for:

> "...securities, stocks, and bonds of corporations organized pursuant to the Cooperative Marketing Law, as compiled in Title 43, Chapter 16, and domiciled within the state of Tennessee..."

Absent legislation, in order to avoid being considered a sale of securities requiring registration, a cooperative interest should be promoted as an interest in real property for residential purposes, with no emphasis

placed on its tax or economic advantages. Further, no time-share, rental pool or management service should be offered in connection with the purchase of cooperative interests. If a condo hotel unit does give the buyer an opportunity to rent the unit when he is not using it, the more restrictions that are placed upon the owner concerning when he can use the property and what possessions he can leave in the unit when he vacates, the more the property looks like a security than a home. (Plaintiff's attorney in the Singer Island case argued this.)

A builder can ask for an interpretive opinion under state as well as federal law. If positive results are obtained, the builder will not be required to register the shares under the state or federal Act or may find an exemption from registration concerning the offer, sale or issuance of the stock in the jurisdiction. These determinations are made upon specific fact situations and do not serve as precedents. Any variation in the facts can result in a different decision. States issuing no-action letters have emphasized that the cooperative interests be issued as a form of residential housing with accessible services, and not marketed as an economic interest to make a profit from the entrepreneurial efforts of others.

Different jurisdictions, of course, may draw different conclusions. This issue is not settled. Real estate professionals should stay tuned. ■

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FEATURE

Valuing Tax-Exempt Real Estate Bonds

BY DEVON W. OLSON, CRE, MAI

INTRODUCTION

In today's constrained lending environment, tax-exempt real estate bonds are an important apartment financing option because of their low "all-in" costs (interest rates), extended maturity terms and potential assumption features. These bonds are generally only assumable on properties originally developed with them in place, but in some cases, are available for existing properties undergoing substantial renovation. This specialized financing cannot be duplicated in the marketplace and provides financial and non-financial benefits to a variety of associated parties. Municipalities are motivated to offer these bonds to encourage the development of blighted areas, increase the tax base and/or promote more affordable housing in high cost housing areas. Thus, investment in bond-financed apartments may be viewed as socially responsible investing. Investors of these properties also benefit from additional cash flow generated by the low-cost debt. Given their specialized nature, estimating the value of these bonds for acquisition, appraisal or accounting purposes requires an in-depth understanding of their characteristics.

TAX-EXEMPT BOND FINANCING HISTORY AND CHARACTERISTICS

In 1954, Congress enacted Section 103 of the Internal Revenue Code which allowed interest payments received on obligations issued by a state or a political subdivision of a state on behalf of a private, for-profit entity to be exempt from federal income tax. The Internal Revenue Service ruled in 1968 that interest received on such bonds would no longer be considered tax exempt, but Congress continued the exemption for industrial parks and "residential real estate for family units" with the Revenue and Expenditure Control Act of 1968 and created subsection (b) to Section 103.

Although many of the multifamily units constructed after 1968 were for low- and moderate-income households, the law did not specify any income levels for the occupants. To alleviate concerns that tax-exempt financing was being used for the wealthy, Congress amended Section 103(b) (4) (a) in 1980, indicating that this type of financing should benefit low- or moderate-income households and encourage mixed-income projects. The definition of low- to moderate-income households was further refined in 1982 with the Tax Equity and Fiscal Responsibility Act (TEFRA). TEFRA states that low- and moderate-income individuals or families are those with incomes of 80 percent or less of the average area median income (AAMI). TEFRA requires that at least 20 percent of a property's units be rented to low- or moderate-income individuals.

About the Author

Devon W. Olson, CRE, MAI, *is the director of the Utah Retirement Systems real estate portfolio and is responsible for overseeing its acquisition, asset management, disposition, and strategic planning. The Utah Retirement Systems, in Salt Lake City, is an $18 billion state pension fund, of which real estate represents $1.8 billion in total equity. Olson has more than thirty years experience in real estate valuation, management, investment and financing. He currently serves on the Real Estate Information Standards Board and is an adjunct professor at Brigham Young University in Real Estate Finance. Olson earned two bachelor's degrees—in finance and management—from the University of Utah, and a master's degree in business administration from Westminster College in Salt Lake City.*

This is known as a "set-aside" requirement. In practice, the 20/80 rule is a restriction on the operations of an apartment property, but generally proves not to be restrictive as renters-by-necessity, service and blue collar workers, as well as young professionals, typically have incomes that are in proximity to 80 percent of an area's median income.

The Tax Reform Act of 1986 (TRA) amended Section 103 of the Internal Revenue Code by further constraining leasing on tax-exempt bond-financed apartment properties. The income set-aside requirements were changed to one of the following:

1. 20 percent of the units must be rented to individuals or families with 50 percent or less of the AAMI;
2. 40 percent of the units must be rented to tenants with 60 percent or less of the AAMI, or;
3. 15 percent of the units are rented to tenants with 40 percent or less of the AAMI.

These new tenant income requirements made tax-exempt bonds less attractive to developers and buyers looking to utilize this debt. Another aspect of TRA that made these bonds less attractive is that income from these bonds is now considered when calculating liability for the Alternative Minimum Tax (AMT). Bonds issued before TRA are not included for AMT calculations.

Compliance with the set-aside requirements is critical in order to retain tax-exempt financing. Leasing records documenting compliance with set-aside requirements must be kept. Depending on the demographics, median gross income of the area and rental levels, set-aside rents may need to be decreased to attract low to moderate renters. Failure to make timely reports will not affect the tax-exempt status of the bonds, but may subject the operator to fines. Note that some bonding authorities may impose restrictions greater than the federal requirements. Although laws regarding tax-exempt bond financing have changed, the original financing and requirements under which the bonds were first issued are typically retained. As a result, properties completed as late as the early 1990s may still be subject to the 20/80 rule since the bonds were originally issued prior to the implementation of the TRA.

KEY PARTIES TO THE ISSUANCE AND MAINTENANCE OF TAX-EXEMPT BONDS

Tax-exempt bond financing is a leverage strategy that allows an investor to access multifamily opportunities with low-cost financing. Given their attractive performance characteristics, one would expect significant competition in acquiring these investments. Issues associated with the bonds, legal structure of the investment and management of the underlying properties, however, deter some investors. These obstacles create a less efficient market where the winning bidder is often not the highest bidder, but one with a demonstrated performance record in managing these properties and qualifying for the available financing. Interestingly, the market has appeared to consolidate in recent years, with fewer competitors willing to expend the resources necessary to move up the learning curve and gain the expertise in these investments.

Bond transactions involve many parties and are complex, specialized transactions that are time-consuming and relatively expensive. Each of the parties involved in the transaction often requires a payment for their services. The key players and their fees are highlighted below.

Issuer: The local government agency or bonding authority that issues the bonds and lends the proceeds to the developer. Bond assumptions and extensions require approval from the local authority. A fee of zero to 25 basis points is often added to the base interest rate to compensate the local government. One-time front-end charges such as attorney fees, third-party financial advisor fees and incidental costs are also typical;

Trustee: The entity hired by the issuer to monitor the transaction and insure compliance with the documents. A trustee fee is often charged.

Developer: The entity that builds the housing at a cost that would not be feasible without the benefit of the low interest rate on the bonds.

Borrower: The entity that buys the property at a price that would not be feasible without the benefit of the low interest rate on the bonds.

Remarketing Agent: An entity responsible for periodic remarketing and re-pricing of the interest rate over the life of the bonds; also assists in reviewing the bond documents. A typical expense for the remarketing agent would be an initial fee of 25 basis points and an annual fee of 7.5 to 12.5 basis points.

Credit Enhancer/Liquidity Agent: The credit enhancer issues a letter of credit or guarantee in favor of the bond holders in return for an annual fee. The credit rating of the bonds reflects the credit rating of the credit enhancer. Generally, the fee varies according

to the risk profile of the underlying property. The fee can range from 50 basis points for preferred customers up to 350 basis points, but typically is 150–250 basis points. This fee, however, can vary significantly depending on conditions in the credit markets. The liquidity agent is typically the credit enhancer and provides a source of funds to pay off investors who have exercised their right to sell the bonds when a new buyer has not yet been found by the remarketing agent. Demand for these bonds, however, is typically strong.

Rating Agency: The entity that assigns a credit rating to the credit enhancer and consequently to the bonds. An initial fee to rate the credit enhancer and an annual fee to update their credit rating are typically passed on to the borrower. An annual fee of $2,000 is common for this service.

Investors: The bond and note purchasers that benefit from the federal, state and, sometimes, local tax exemption.

Underwriter: The investment banker that prices, structures and sells the bonds. The underwiter guarantees the sale of the bonds and therefore assumes the risk that the bonds will not sell. This fee is typically paid at the outset and is not a recurring expense.

Servicer: The entity responsible for invoicing and servicing the loan on behalf of the credit enhancer or lender. A servicing fee is typical.

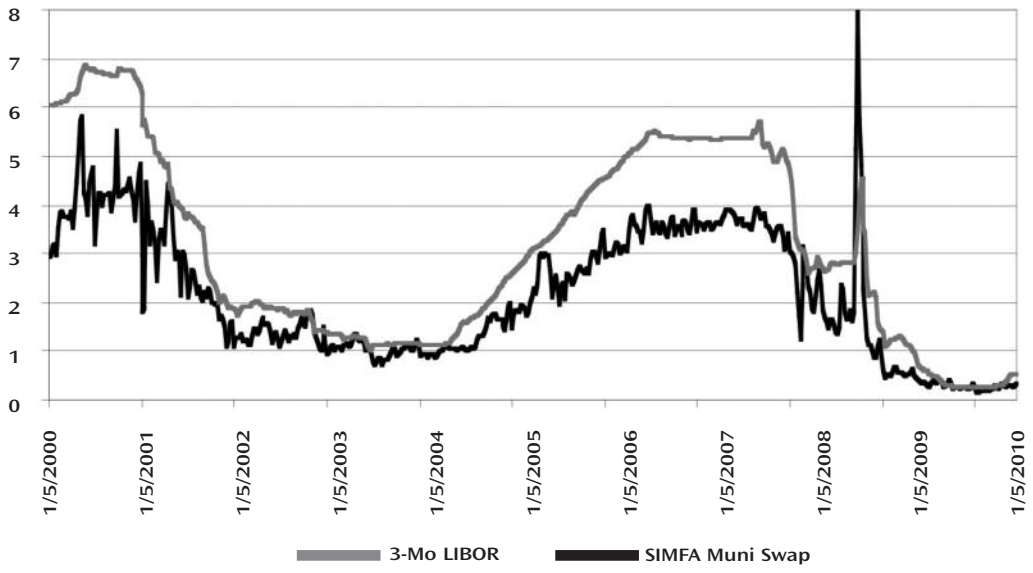
TAX-EXEMPT AND TAXABLE FINANCING COMPARISONS

Tax-exempt bonds are unique forms of real estate financing. The impact and value of this financing can be better estimated by comparing it with the most similar market financing available. Since these bonds are typically variable rate, comparing them with market variable rate loans enables us to quantify their differences. A good proxy for the historical base interest rate on tax-exempt variable rate bonds is the Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index, found at www.sifma.org. Receiving data from 80 remarketing agents, the index consists of high-grade variable rate municipal bonds. It was created in 1991 and covers the time period from July 1989 to the present. A good proxy for the base interest rate on taxable floating rate financing is three-month LIBOR (London Interbank Offered Rate).

Figure 1 highlights the relationship between the SIFMA Muni Swap Index and three-month LIBOR. The data indicates weekly rates for both indices from 7/5/89 to 6/16/10. Average three-month LIBOR during this period was 4.37 percent. By comparison, the average SIFMA tax-

Figure 1

Tax-Exempt and Taxable Base Interest Rates (percent)



Sources: Securities Industry and Financial Markets Association (SIFMA); Moody's Economy.com, *as of 6/16/10*

exempt interest rate was 2.94 percent. The average interest rate difference between the two indices was 1.42 percent. As a rule of thumb, the ratio of the SIFMA rate to three-month LIBOR is 2:3. In other words, the SIFMA rate is typically 67 percent of three-month LIBOR.

TAX-EXEMPT BOND RATE STACK

Although the SIFMA Muni Swap Index and three-month LIBOR are good proxies for tax-exempt and taxable financing, respectively, the fees ("rate stack") associated with the key parties to the bond transaction must be added to the SIFMA rate for a total cost of bond financing, and a lender spread must be added to three-month LIBOR to achieve an all-in cost for taxable financing. The required rate stack for bond financing has historically been significantly less than the required spread for taxable financing. Today, the rate stack for bond financing typically ranges from 150–250 basis points; it is generally 300–400 basis points for conventional variable rate financing today. Recent experience indicates that the all-in costs for apartment bond financing and conventional variable rate financing are below three and five percent, respectively.

In addition to the recurring fees associated with some of the parties to the bonds, an adjustment to bond quality also may be necessary. The SIFMA index is based on higher quality bonds than are typical for tax-exempt real estate bonds. As a result, an adjustment, typically 5–10 basis points, should be made to reflect the lower credit of these bonds relative to the SIFMA index. Figure 2 details a rate stack that is representative of bond-related costs from recent transactions.

Figure 2
Tax-Exempt Bond Rate Stack Fee Schedule

Enhancement/Liquidity	1.10%
Servicing	0.15%
Remarketing	0.07%
Issuer	0.10%
Trustee	0.03%
Bond Quality	0.08%
Other Adjustment	0.00%
Total	1.53%
Total (Rounded)	1.50%

Source: Author's Calculation

TAX-EXEMPT BOND VALUATION

Tax-exempt bond-encumbered apartment properties tend to sell at a premium over conventionally financed multifamily assets because of the lower interest rate on the bonds compared with conventional apartment financing. For bond-financed assets, the real estate is generally valued separately from the bonds. Qualitative and quantitative factors are used in the bond valuation process. Factors that influence the valuation of the tax-exempt financing include the following:

1. **Market Conditions** – For example, in 2009, the credit crisis placed additional risk on real estate lending. While assumable tax-exempt financing remained extremely attractive, long-term enhancement was more risky because of the shrinking supply of bond enhancement from the recognized market providers.

2. **Bond Enhancement Market Provider Analysis** – For example, Merrill Lynch uses a 15 percent discount to market cap rates to account for the value associated with the tax-exempt bonds. This analysis should be a consideration in an investor's bond valuation process.

3. **Remaining Term of Debt** – One of the appeals of buying a property with bond debt is its considerably longer term compared with conventional debt. The term for conventional debt is typically 5–7 years versus 20–30 years for bond debt. In addition, there typically is an ability to extend the maturity date of tax-exempt debt with issuer approval. Issuers are also generally motivated to extend the term of the bonds in an effort to continue to provide moderate income housing.

4. **SIFMA/LIBOR** – In general, the spread between rates associated with conventional variable rate debt (LIBOR) and variable rate bond financing (SIFMA) is expected to widen as rates increase. As LIBOR currently remains at historically low levels, lenders have implemented floors on their base conventional lending rates so that current spreads to tax-exempt financing remain wide. Variable rate tax-exempt bond financing is expected to continue to provide the lowest cost means of financing apartment investment opportunities.

5. **State and Double Taxation** – Standard bond valuation assumes federal income tax avoidance only. For

states with a state income tax, especially higher income tax states like California, New York and Connecticut, the value of tax-exempt income can be higher if the bonds are sold exclusively to residents of the state of issue. As a result, the state of issuance can influence the interest rate on tax-exempt real estate bonds.

6. **Discounted Cash Flow (DCF)** – A 10-year DCF analysis can be used to quantify the benefits of tax-exempt over conventional financing. Potential additional risks/benefits identified by the qualitative factors listed in 1–5 above may warrant an adjustment to the discount rate used in the analysis.

7. **Transaction Comparison (Bond Pipeline Analysis)** An analysis of underwritten bond deals provides insight into the value that investors (or potential buyers) place on bond financing. Generally, this transaction information has provided evidence that buyers are willing to pay more than the fee simple value of the real estate in order to acquire these properties.

The market values bonds in various ways. Using the same general assumptions (Figure 3), two different techniques are used in this article to estimate the value of tax-exempt real estate bonds (Figures 4 and 5). The examples assume that the average tax-exempt and conventional variable interest rates are equal to the average weekly SIFMA rate and three-month LIBOR from 7/5/89 to 6/16/10, respectively. The SIFMA average was 2.94 percent; it was 4.37 percent for three-month LIBOR. When valuing a particular tax exempt bond, currently available financing terms should be used. Although the required bond-financing rate stack historically has been significantly less than the required lender spread for taxable financing, both variables are assumed to equal 1.50 percent for simplicity. Figure 4 uses a capitalization rate and assumes that the bonds are extendable into perpetuity. Figure 5 uses a discounted cash flow analysis that is akin to the acquisition of real estate with expected cash flows and a reversion. It assumes that tax-exempt bond benefits are available through the property holding period, accounting for debt service savings, as well as the reversion value of the bonds.

Figure 3
Assumptions for Examples

Tax-Exempt Bond Terms:	
Principal	$ 10,000,000
Average Tax-Exempt Variable Interest Rate	2.94%
Tax-Exempt Bond Rate Stack	1.50%
Effective Tax-Exempt Variable Interest Rate	4.44%
Average Taxable LIBOR Variable Interest Rate (ATLVIR)	4.37%
Taxable Required Lender Spread over LIBOR	1.50%
Effective Taxable Conventional Variable Interest Rate	5.87%
Bond Term	25 years
Average Annual Interest-Only Bond Debt Service	$ 444,000
ATLVIR Interest-Only Conventional Debt Service	$ 587,000
Savings by Using Tax-Exempt Bond Financing	$ 143,000
Less Recurring Annual Fees:	
Rating Agency	$ 2,000
Other Municipality Fees	$ 5,000
Net Savings by Using Bond Financing	$ 136,000

Source: Author's Calculation

While the selection of appropriate capitalization and discount rates is often difficult, typical property market discount and capitalization rates are generally used in the bond valuation process. Tax-exempt bonds are long-term and extendable. Although their term may run out, municipalities are motivated to extend the life of these bonds. In extending the bonds, municipalities continue to provide housing for low- and moderate-income households, but may extract concessions and fees from the borrower at the time of extension. Due to the bonds' long life and extension features, capitalization rates from market real estate transactions are arguably appropriate for valuing the debt service benefits into perpetuity. Discount rates from acquisitions of similar unleveraged properties would also be a good proxy for valuing the income stream.

Figure 4

Computing the Market Value of Tax-Exempt Bonds by Capitalization Rate

Net Savings by Using Bond Financing	$ 136,000
Capitalization Rate	7%
Estimated Bond Value	$ 1,942,857

Source: Author's Calculation

In Figure 4, the bond premium is calculated using a capitalization rate and estimated to be almost 20 percent of the outstanding bond principal balance. Given the assumption of the debt service benefits going into perpetuity, this analysis can be viewed as identifying an estimated high water mark for the value of the bonds.

Figure 5

Net Savings by Using Tax-Exempt Financing

Net Savings by Using Tax-Exempt Financing	$136,000
Discount Rate	9%
Holding Period	10 years
Estimated Debt Service Benefits	$872,801
Reversion Capitalization Rate	8%
Reversion Value ($136,000/.08)	$1,700,000
Less: Bond Extension Cost	$200,000
Estimated Bond Reversion Present Value	$633,616
Estimated Bond Value	$1,506,417

Source: Author's Calculation

In Figure 5, the cost of extending or assuming the bonds at the time of reversion is incorporated into the discounted cash flow analysis by subtracting it from the capitalized bond reversion value at the end of the holding period. In this instance, the bond premium is estimated to be slightly more than 15 percent of the outstanding bond principal balance. This estimate is consistent with experience in recent years. As a percentage of the outstanding principal balance, bond premiums have tended to be in the mid-teens.

CONCLUSION

Tax-exempt bonds offer an opportunity to improve apartment investment returns through the use of low-cost financing. Given tax-exempt bonds' attractive characteristics, evidence indicates that sophisticated investors are willing to pay a premium for bond-financed apartment properties. Whether for acquisition or ongoing reporting purposes, accurately valuing tax-exempt real estate bonds requires knowledge of how they work. Although the methods of estimating the benefit of this financing and its value are demonstrated herein, these estimates of value should be rigorously tested against market evidence to verify that the conclusions are supported by the market. ■

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Reconsidering the Definition of Highest and Best Use: The Case for a Post-Disaster Highest and Best Use

BY DONALD R. EPLEY, PH.D. CCIM, MAI

INTRODUCTION

A natural disaster can create a terrible toll of human misery from the loss of possessions, records and traces of identity, employment and, worse, human life. The job of picking up the pieces in the aftermath to create a habitable environment can be daunting when the necessities of life are badly damaged or even destroyed.

Real property damage can range from little to total, depending on many factors including location. Flooding often is accompanied by destruction of infrastructure involving utilities and sewage disposal. Underground lines may be unserviceable. Much of the destruction and its extent are not readily viewable. A large water surge with a storm such as Katrina brings environmental contamination, churned from the sediment. In addition, oil residue may be left on buildings when the water subsides.

Earthquakes, tsunamis, flooding, fires, strong winds, and volcanic eruptions create a special class of assignments and challenges for the appraiser whose task is to estimate value as part of the eventual cleanup and resettlement efforts. Problems arise immediately that will bring into question the valuation process of a normal market. Public records may be partially or totally destroyed, property lines and boundary markers may be gone or hidden, and the infrastructure may be damaged in a manner that makes usability questionable. Further, the likely suspension of a transaction market eliminates comparable sales, price trends and other market data needed for the valuation process.

The purpose of this article is to examine the typical procedure that a professional analyst uses to estimate highest and best use (HBU) and value for a property that has been recently impacted by a natural disaster. It concentrates on the techniques used to determine the HBU of a site as though vacant (hereafter HBU-S), which could be argued to be the most important part of the estimate of value and property liability. One goal is to determine if the common procedures learned in education classes and supported by the U.S. Uniform Standards of Professional Appraisal Practice (USPAP) are applicable in this special type of situation.

The challenge faced by the analyst is not simply that of how to employ the concepts of evaluation. The typical concepts used, such as market value, may be legitimately questioned as the market conditions within the definitions may not exist. Extreme market phenomena with very special characteristics such as those resulting from disaster occur with sufficient frequency to suggest

About the Author

Donald R. Epley, Ph.D., CCIM, MAI, *is a USA Distinguished Professor of Real Estate and director for the Center for Real Estate Studies, Mitchell College of Business at the University of South Alabama in Mobile. He holds a doctorate degree in regional and urban economics from the University of Missouri, and was awarded a MAI designation from the Appraisal Institute and a CCIM designation from the Commercial and Investment Institute. Epley served as president of the American Real Estate Society and on its board of directors for fifteen years. He was elected as a trustee of the Appraisal Foundation (Washington, D.C.) and served a term on its executive committee. Epley has authored and co-authored nine textbooks, and has been the editor of two academic journals. He frequently is quoted in the media on his analysis of the local economy and real estate markets.*

strongly that a new HBU definition and procedure be created and used. This article recommends that such a concept and procedure be developed and proposed as opposed to revising the traditional HBU methods to fit each discrete disaster instance.

Three questions will be answered here:

1. Is the typical HBU-S valuation process applicable in the market after a disaster?
2. What are the steps to follow in the estimation of HBU-S following a disaster?
3. Has a new paradigm emerged for this situation?

The current need for a post-disaster property value procedure is worldwide. Interestingly, the professional literature is almost void of any research on this topic. Brody, et.al[1], calculated property damages from 423 flood events in Texas using a dollar loss in the Consumer Price Index—a technique not recognized by the U.S. appraisal profession. Montz and Tobin[2] used multi-list listing and sold prices from before and after the flood to show a change in the market. Listing data is not allowed in common U.S. appraisal procedure. The sold prices may be used in a professional estimation of value only after each individual price has been scrutinized and adjusted through a formal valuation process. Montz and Tobin correctly conclude with a call for policies and programs to address spatial and temporal differences in property values caused by unusual events.

PROBLEMS IN CURRENT DEFINITIONS AND THE VALUATION PROCESS

Several problems exist with respect to current definitions of market value, the valuation approaches, HBU, and their application in a market after a disaster.

Contentious Discussion. An examination of the literature and interaction with specialists in this area generate the conclusion that opinions regarding changes are supported by strong emotions. One group argues that the current valuation process has produced accurate results in unique economic situations, and should not be altered without a considerable amount of further discussion and examination. Another group is quick to point out that the popular definition of market value and the procedures used to produce it are broken and need to be revised quickly. Until a trade group or government institution takes the initiative to resolve the issue, articles and journals, such as this one, will remain the necessary outlet for an open discussion. Recommendations here are offered to further a discussion that will improve the analysis of real estate data:

- **Does Market Value Work?** A popular definition of the commonly used term "market value" is:

  "The most probable price, as of a specific date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with buyer and seller each acting prudently, knowledgeably and for self-interest, and assuming that neither is under undue duress."[3]

- **Proposed New Definition of HBU-S.** A newer discussion of value would need an updated definition of highest and best use found later in this article that is the following:

  "A disaster highest and best use for the site (DHBU-S) is an immediate use that is both just and fair to the owner or potential owner which results in the highest present value. Any reasonable and logical approach in estimating value may be to derive value directly from informed opinions. The three criteria of physically possible, legally permissible, and adequate effective demand should be used when possible."

The popular market value presumptions are not satisfied after a disaster. For example, "reasonable exposure" is the time immediately following the disaster as the owner is in need of immediate cash, has significant damage if not total loss of the property, and may have relevant insurance coverage issues that will require negotiation. A "competitive market" may not exist as the damage may be localized to the extent that comparable neighborhoods and locations may also have been seriously impacted. Further, the impacted owner may be exhibiting symptoms of stress that inhibit the individual's ability to make rational decisions. In sum, not every presumption underlying the existing definition is satisfied.

Special attention should be given to the exact date of the HBU conclusion. Timing of the use and its relationship to the most likely user was recently identified as the main reasons necessary for a new HBU definition. The final recommended HBU is derived after the probable user has sufficient time to develop the intended use.[4] This article argues that a disaster may change the market conditions

so dramatically that long-run decisions are made in a shorter period of time than the time needed to implement short-run decisions.

The timing question is very similar to long-run versus short-run decisions taught commonly in a beginning economics course to illustrate profit-maximizing behavior in the analysis of variable and fixed costs. For example, in the short run of a firm, some factors of production that are variable in supply are added to other factors of fixed availability. The decision is to combine both in a manner that allows for profit maximization to occur. Time in a short-run decision is measured in production units as opposed to calendar time.

In the long run, all factors of production are either truly variable or presumed to be variable. For example, a firm may decide to abandon the business and exit the market, and both the production time and calendar time necessary to make this decision is much shorter than the timing of the short-run decision.

The same decision can be made for a disaster-impacted site. The owner or potential owner may decide to abandon the property and exit the location, which is a long-run decision as opposed to maintaining the past HBU and restoring the structure. The potential HBU will be altered dramatically should the owner make the important decision to abandon the site.

Further, the above market value concept presumes that an underlying competitive market exists from which comparable sales can be extracted, costs of building a replica are available or future income can be generated. After a disaster, none of these may be available. Decisions must be made in the current time frame as a long-term decision in calendar time does not exist for the current owner.

- **Vacant Site Valuation Process.** The valuation process emphasized in USPAP Standard Rules 1 presents an orderly procedure for the appraiser to estimate value. It begins with a Statement of the Problem and ends with the Reconciliation of the approaches to value and final Report. The content of the Report can be found in USPAP Standard Rules 2. This logical and orderly approach provides an outline, blueprint and common denominator for all estimates of value including all property types

The very first step contains a description of any extraordinary assumptions, hypothetical conditions or general limiting conditions that may identify a situation that prevents the appraiser from estimating a value without qualifications. A site impacted by a disaster could conceivably require so many extraordinary assumptions that the appraiser may not be able to progress beyond the first step.

A good illustration is the impact of Katrina on the property in south Mississippi. A flood washes out and destroys infrastructure such as electricity, gas, water, and sewage. Damage is difficult to assess as it cannot be seen without extracting the utility in question and performing standard tests. What is the appropriate assumption or condition to be used without any knowledge of the infrastructure condition?

Also, environmental engineers state that the water surge deposited buried carcinogens on the rooftops and made the buildings and sites unsafe for human beings. Subsequent growth of mold also was rendered to be unsafe for human well-being.

In the aftermath of a disaster, the best solution could be to dig out the infrastructure to a depth of *x* feet, and haul away to an acceptable landfill all soil, pipes, wires, and structural items. The resulting holes would be filled with fresh and acceptable soil before the evaluation of a property's HBU.

- **Vacant Site Valuation Approaches.** There are six approaches that can be used to estimate the value of a vacant site.[5] These approaches include: sales comparison, allocation, extraction, subdivision development, land residual, and ground rent capitalization. None of these is readily usable for the following reasons:

- **Sales comparison.** Sales of comparable properties must exist. The relevant market may be gone in its entirety. Further, a valid argument can be made that pre-disaster sales cannot be used to value post-value property. The reason is that the HBU has changed. The post-disaster damage may be so significant that the final valuation decision could be between a green space in the disaster area and a long-run HBU.

- **Allocation.** The ratio of the land price to the total price is useful only when sales have occurred. None exists after a disaster.

- **Extraction.** Land value can be extracted from the sale price of improved property using cost data only when sale prices are available.

- **Subdivision development.** A sales comparison grid may be used to assemble a competitive price of lots only when comparable sales exist.
- **Land residual.** The building value and stabilized income are used to value the building, and the residual is attributed to the land only when the first two are available.
- **Ground rent capitalization.** Leased fee rent can be capitalized into an estimate of value when the market exists to produce market rent and a market-derived capitalization rate.

All commonly known and used techniques to estimate land value suffer from the same deficiency in the destruction of a marketplace and comparables.

- **Exposure of the Property.** The definition of market value above includes the phrase "…after reasonable exposure in a competitive market…" Exposure may be harmful to the owner as it allows speculators to enter. A more just and equitable response might be to estimate value at the time of the disaster, or a very short time thereafter.
- **Effective date of value.** The day of inspection and the subsequent date on the inspection report, should be dated: (a) post-disaster; and, (b) should follow one another in a timely fashion. Presuming that the "market" in the above market value definition refers to what the appraiser sees on the day of inspection, little justification exists to date the inspection before the disaster.

One exception can exist: in a court proceeding in which the judge wants to "make the owner whole" through a just compensation claim. The appraiser may need to estimate a loss in value which necessitates calculating the difference between a value pre-disaster and one post-disaster.

- **Maximum Potential Use and Timing.** HBU-S estimates the maximum potential use of the property and, further, the owner must prove that this use is very likely to occur. Developing this conclusion will create an immediate need to evaluate the basic demand assumptions that underlie the HBU.

NEED FOR DEMAND AND EFFECTIVE DEMAND

An underemphasized presumption that underlies an HBU-S conclusion is the demand for the product and resulting income stream produced by the site. A demand schedule relies on assumptions including consumer tastes, preferences, expectations of price changes, population and population changes, and level of income. All of these are held constant for the actual relationship between quantity and price to be measured. Thus, a specific quantity is demanded at a specific market price, given these consumer characteristics are held constant. All consumers have unlimited tastes and preferences, and typically exhibit unlimited levels of desires and wants. All of these are reflected in the measurement of the demand schedule and curve.

Effective demand occurs when the consumer has a sufficient level of disposable income to actually purchase the product demanded. In addition, a strong likelihood exists that the potential use will actually occur. The ideal demand schedule for the economist to estimate is the goods and services that consumers are able to afford relative to their income bracket.

The appraisal HBU concept used today presumes that the use has effective demand. Physical, legal and financial criteria for an existing structure assume that the building, or some form of it, is standing. The question is whether the existing use will be maintained because effective demand exists for the same or a similar structure. If the effective demand is higher for another structure, the maximally productive criterion will cause the new structure to outbid the existing use and result in a HBU decision to recommend another building. This criterion must be the winner in the marketplace as a result of the excess surplus productivity that it generates. The new or potential owner will find the resources to bring the property onto the market because of its potential income.[6]

Apply this premise to the flooded and destroyed real estate market of New Orleans after Katrina. The impacted residential properties have a demand by the current owners to be restored, but many owners do not possess the necessary income to translate their tastes and preferences into effective demand. Thus, the property remains in its current condition. Potential new owners will not spend the necessary capital to restore these sites to their old HBU of single-family residences because they do not see the surplus productivity in restoring the current use or developing it into a new use. Thus, a property sits in an abandoned condition, which means that potential owners have made a long-run decision.

HBU-S applies the same procedure except that an existing structure no longer exists, and the use may be changed to

something new if the maximally productive criteria generates a surplus value immediately. Unfortunately, it has not.

Another example is an earthquake in downtown Los Angeles, which causes substantial property damage to income-producing property but is followed by timely construction that replaces the destroyed property. The property owners or potential owners have sufficient income to develop the area given the desirable location and inevitable potential income it will produce. The HBU-S conclusion is to replace the previous use with similar use including a restored existing structure or construction of a new one.

HBU-S relies on the presumption of effective demand by the owner or potential owner. The maximum use will only happen if the owner or potential owner has the income to become a catalyst for property replacement and demonstrates a strong motivation to make it happen.

- **Application of four HBU criteria.** The typical criteria of physically possible, legally permissible, economically feasible, and maximally productive may not be applicable in part or in whole. For example, an earthquake damages the infrastructure and casts significant doubt on the reliability of the utilities. Drinking water may be produced from a faucet, but needs to be tested. Sewage disposable may be destroyed. Underground utility lines may be unreliable. The starting point of physically possible and legally permissible may not be applicable at all.

What happens to need for demand and effective demand in a disaster situation? Comparable sales do not exist, a functioning market is gone, timing must be short to avoid speculation, effective demand by the owner(s) or potential owner(s) may not exist, and the typically used criteria for evaluating the HBU-S are not in force. If these four criteria are not applicable, the six typical procedures for estimating land value are unavailable as an estimating tool. The conclusion is that a new concept of use is needed with new estimating tools.

DETRIMENTAL CONDITIONS AND STIGMATIZED PROPERTIES

The professional literature contains a number of references that discuss proper appraisal procedures to estimate value when a property has been subject to detrimental conditions, stigma, environmental contamination, and monumental damage. All will be considered here as attempts to label and describe accurately similar situations where property has been subject to a negative market condition.

USPAP Guidance. The guidance provided by Advisory Opinion A0-9 gives emphasis to extraordinary assumptions and hypothetical conditions.[7] The former occurs when the appraiser uses a report by another, such as an engineer, to assess the quantity and quality of the damage. The extent and use of this information must be described in the final report.

The second is used when the estimate of value is completed assuming that a negatively impacted property has not been damaged. This estimate is used as a baseline to determine damages. Typically, two estimates of value are produced including an impacted and non-impacted estimate, and this hypothetical condition is used for the impacted estimate.

Interestingly, AO-9 states that the estimate of value usually involves the two estimates mentioned above. However, it says further that "…the appraiser must recognize that the value of an interest in impacted …real estate may not be measurable simply by deducting the remediation of compliance cost estimate from the opinion of value as if affected…"

Detrimental Conditions. Detrimental conditions range from temporary conditions, market perceptions, construction defects, environmental contamination, and geotechnical issues.[8] One approach is to classify the property damage into one of ten categories where each has distinct attributes ranging from no detrimental condition to insurable condition. Each class has a recommended analytical procedure. Essentially, the analysis is an estimate of the damages caused by the negative condition.

Stigma. A stigma is a remaining negative impact on value that is real or perceived after cleanup costs.[9] A classification system can be used with three basic categories: high risk and high stigma; low risk and low stigma; and changing risk and changing stigma. One approach to value is to estimate damages and subtract this estimate from the non-impacted value.

Further, a stigmatized property may have a loss in value because of public perception without a change to the physical structure.[10] The estimation of value represents the difference between the non-impacted and the impacted values.

An underlying presumption in both is that the property still exists in some form, and effective demand probably exists to remodel, repair or rebuild. In contrast, disaster-impacted property may be gone or so damaged that the debris needs to be removed, leaving little or no improvements. In addition, the appraiser is not sure if effective demand exists at a sufficient level to cause reconstruction and development to be feasible. The same observation can be made in that a loss in value presumes that the property still exists, has value and exhibits effective demand.

The non-impacted value minus loss from damages, and the before-value minus the after-value approaches both presume that a non-impacted value is relevant in comparison to an impacted market that may have a completely different HBU. Also, the first method estimates damages, probably as a percentage, which are extremely difficult to estimate in a disaster situation.

This article recommends a new HBU valuation definition and estimating procedure that attempts to overcome these deficiencies. The technique attempts to estimate value directly, using informed opinions.

A NEW CONCEPT: DISASTER HIGHEST AND BEST USE

A new concept is needed for properties affected by disaster for reasons outlined above. Current comparable sales data may not exist due to the destruction of the current market. Second is the lack of a knowledgeable seller who is duress free and able to expose the property to the market for a reasonable time. Third, partial or complete elimination of infrastructure will open the door to a complete change in the potential HBU. Four, the valuation task is not a reduction in value by subtracting the value post-disaster from the value pre-disaster. Five, time is critical to avoid speculation that could take advantage of traumatized owners. This point alone means that the typical definition of market value is not applicable.

One reason that a new definition of HBU must be offered[11] is that the currently used concept implies that the use must occur at the current time. The use could be now or at a probable future, and the intended user(s) must be adequately supported. The new definition includes the timing in the application of the typical four criteria that could recommend a use at a future date as opposed to the current time.

This article suggests that the welfare of the owner and the community is best served when the use recommendation occurs within a short time of the disaster. Typical procedures will not work. Most probable use will be extremely difficult to evaluate. Data is nonexistent. Speculation will occur as time elapses and cash-rich investors begin to contact cash-poor owners.

New Concept. A Disaster Highest and Best Use for a vacant site (DHBU-S) is proposed here to solve and relieve the deficiencies described above with the typical HBU-S concept. Further, a procedure is offered to estimate the value of a site post-disaster.

The beginning point is to start with a type of use and resulting value that is needed and build a workable concept and definition. Thus,

> PROPOSED DEFINITION: DHBU-S is an immediate use that is both just and fair to the owner or potential owner, which results in the highest present value. Any reasonable and logical approach to estimate value may be used that estimates value directly from informed opinions. The three criteria of physically possible, legally permissible and adequate effective demand should be used when possible.

This concept includes: (a) fair and just compensation; (b) timing of use; and (c) selection of a logical valuation approach that includes the direct examination of value opinions and motivations of the current owner and potential owners. Similar to the new definition offered recently,[12] it emphasizes timing as a critical factor, although it is different in that the new definition strongly suggests that the relevant period is the time immediately following the disaster.

Valuation Approach: Contingent Value (CV). The special situation with a special definition of highest and best use calls for a new valuation approach. The recommendation here is a combination of the survey technique used in determining the impact from the perceived adverse perception of a stigma, and the technique used to estimate contingent valuation.

Surveys in the current literature are among informed parties to extract a loss in value. The procedure recommended here is to use the survey to solicit opinions, and, even offers, of current value. The questionnaire relies on the basic presumption in a real estate transaction that the negotiation between the seller and potential buyers is a modified auction process. The seller announces a selling price, the buyer counters with an

offer price, and the discussion continues until a final closed-sale price is reached.

The content and structure of a survey must be constructed carefully to show the casual connection between the source of stigmatization and the responses of buyers.[11] The survey in this article goes further in that it attempts to estimate dollar value. It asks direct questions aimed at uncovering current value as opposed to losses.

Contingent Valuation. Contingent Valuation (CV) has been used to ask direct questions of a respondent on the dollar amount placed on non-market goods and services. CV has been used extensively to value damages from environmental contamination. Essentially a survey technique, it has been supported as an additional value tool[12] and criticized as inaccurate.[15] CV is a closely related approach that has been used for the same purpose with a questionnaire that asks the respondent to evaluate trade-offs so that a pattern may be determined and used to evaluate the loss in value.[16]

This article relies on the recommendation in an earlier study[17] that survey techniques are a valuable contribution to the valuation process. Further, it uses CV techniques by asking the respondent to provide a direct opinion on the value of the site as is.

Preliminary Condition. In the aftermath of a natural disaster, the appraiser will follow the following process:

1. Determine that the underlying conditions for the traditional use of MV and HBU are not met and the new D-HBU is applicable. The three criteria to be used are the following:

   Existing market: The existing transaction market has been significantly destroyed, if not eliminated. Sales comparisons are not available.

   Timing: The relevant timing of the estimate of HBU and value is the present time, or a very short period following the disaster.

   Effective Demand: Effective demand is present. This is a stronger concept than simple demand, which means that the owner or potential owners must possess the necessary income and motivation to implement the current or different HBU.

If these criteria are satisfied, the appraiser may adopt the new definition of D-HBU and apply the valuation approach.

2. **Implement the CV Approach.** The CV approach is a different version of a conjoint estimation that asks for a direct estimation of value. It is similar in that it is based on willingness-to-pay and involves a panel of experts. It is a survey of knowledgeable and interested parties questioned to uncover the opinion of each on value. The resulting estimate of value is generated from the results. The market is knowledgeable local individuals as opposed to closed sales.

Criticisms and Limitations. A list of survey shortcomings in studies attempting to measure the impact of contamination includes the following:[18]

- Lack of information available to survey respondents;
- Use of uninformed intermediaries to offer advice prior to completion;
- Inadequate consideration of factors supporting a respondent's response;
- Consideration of only the buying side;
- Dynamic nature of markets can be ignored.

Further, special criteria that should be satisfied in the construction of the questionnaire include the following:[17]

- Scope of study needs to be focused on the specific property;
- Willingness-to-pay should be the emphasis;
- Two independent groups should be used with a variable such as distance to differentiate the groups;
- Responses should be monotonic, transitive and stable;
- Respondents should not be biased;
- Questions should not be leading;
- Pretesting of questions is needed;
- A control group should be part of the statistical analysis;
- Sample size should be sufficient for adequate statistical analysis.

The appraiser must be able to justify the use of the D-HBU method. Data must be presented to illustrate that the traditional market value, and HBU criteria are not applicable.

3. **Develop the Questionnaire.** Once the justification exists to adopt the D-HBU definition, the CV questionnaire must be developed. The suggested essential questions are shown in Figure 1. Other questions can be added as needed to assure that the survey instrument obtains the best estimates possible.

Figure 1

Post-Disaster Value: Vacant Site

You have been selected to participate in a very needed and critical survey to offer an **opinion of value on a vacant site impacted by a disaster!**

This property is not subject to common and typical procedures to estimate value. We need your opinion.

The property is commonly known as

_____

OPINIONS

In your opinion as of (date) _____

What is the *fair and equitable selling price of this site vacant* **as is? $**_____

If known, what was the *likely value of this site vacant PRIOR to the disaster?* **$** _____

What is the *potential and most likely use of the vacant site* **in six months?** _____**use**

How *far from this property* **do you reside?**_____**miles**

Comments?_____

Have you *inspected* **this site? __Yes __No**

What qualifies you to offer an opinion? _____

_____**qualifications**

Additional comments?

Survey Characteristics. The survey and questionnaire should contain a number of the recommended qualities:[20]

- Willingness-to-pay is the basis of the questions, and they are asked directly;
- Reliability is supported by the selection of the respondents. The appraiser is free to select knowledgeable participants, and must be prepared to justify the qualifications of those asked. Should the appraisal reside in a disaster-prone area and assignments are likely, or should the appraiser specialize in this area, a list of potential respondents can be assembled in advance. Further, the CV questionnaire(s) could be developed in advance in preparation for eventual use;
- Bias is minimized in the selection of the respondents;
- Leading questions are minimized as the instrument is kept short and the questions direct;
- Owners of disaster properties are part of the respondent list that receives a number of opinions from the buying and selling side;
- Use of a control group is achieved by selecting respondents who live in an area that is not impacted;
- Pretesting of the questions is accomplished by the appraisal staff. Those offices located in a disaster zone can arrange a panel and pretest questions in advance.

Competency is satisfied as the questions provide for a direct dollar response. The qualifications to analyze the values are not prohibitive. The time-consuming task is to prepare the questionnaires and arrange the panel of respondents.

1. **Estimate the Value.** It is recommended that a minimum of 10 direct estimates from the survey be used. This means that it may need to be mailed to thirty potential respondents. Using the minimum number, a second recommended procedure here is to re-verify the value. This involves contacting each of the 10 respondents by phone, and relaying the central tendency values with a question such as the following:

"The CV survey produced an estimate equal to $x on ___ date. Do you agree?"

A final estimate is derived from the responses.

RECENT APPLICATIONS OF SURVEY TECHNIQUES TO ESTIMATE VALUE

Two recent studies on the usefulness and accuracy of survey techniques to estimate values conclude that the results are inaccurate.[21] The first reports used CV in four locations to estimate adverse impacts from environmental contamination. The conclusion was that this technique produces estimates of actual prices and values that are unreliable predictors. The most significant reasons were the following:

- Survey forms do not supply a sufficient range of information;
- Market participants rely on other professionals for opinions during the negotiations, which are not available.
- Survey forms do not address all of the neighborhoods that participants trade off to make decisions;
- Participants may represent one side of transaction only;
- Survey results do not include the dynamics of the negotiation process.

The second study involved the construction of a survey to uncover potential damages from a perceived stigma attached to a landfill. The survey results did not attempt to estimate the actual loss in value, which was demonstrated by other appraisal techniques such as paired sales. The study concluded that a link existed between the negative impact on the landfill and the decline of desirability of housing and property in the area.

Although both studies are important to the construction and use of an accurate CV survey, both have differences when compared to the disaster assignment. First, they are primarily attempting to estimate a loss in value to existing property. In a disaster, the impacted value may have a complete loss in the use of any structure. Also, the marketplace may have been destroyed so that comparable sales have been eliminated.

These studies represent an important component in the development of a better CV survey instrument. They do not negate the reasons for using this survey approach in a special disaster situation.

POTENTIAL CRITICISMS OF THE USE OF D-HBU

Possible criticisms to the new D-HBU and the CV survey approach to value could be the following:

- **The current definition of market value has served us well.** If it ain't broke, don't fix it.
- **Typical appraiser is not qualified.** Competency can be acquired under USPAP. Appraisers who want to take disaster assignments can satisfy this requirement;
- **Current HBU definition is adequate as a natural disaster is only a special case.** This article suggests that too many presumptions inherent to market value and HBU are violated. A new definition and valuation approach that constitute a new paradigm are needed to make the valuation process clearer and straightforward;
- **The immediate HBU estimate is too quick and minimizes the importance of a longer time period.** The nature of the situation is different and warrants a shorter time period. Further, speculators will enter this market, which will distort the potential value estimate;
- **Pre-disaster comparables should be used**. The pre-impact market value exists in a different market than the current disaster value. Comparison of the two HBU values is not an acceptable comparison;
- **Post-disaster sites can be compared to sites in other comparable areas that have not been impacted**. One of the first rules in selecting properties for the sales grid that are not located in similar areas is to prove that the two locations are impacted by the same market forces of supply and demand. That comparison is impossible to justify;
- **Loss in value in the form of damages should still be used**. This procedure fails in the second step when the appraiser must estimate the "unimpaired (after) value;"
- **This new D-HBU and CV approach should not be used without further discussion to insure understanding.** This statement is definitely true. Additional discussion and revision of the wording is needed prior to the adoption of a new concept.

ADDITIONAL PROFESSIONAL OPINIONS

To assure that a new HBU definition and valuation approach would be justified, a non-random, non-scientific survey was conducted among a select group of appraisers. The group included both practitioners and academics. Each held a professional appraisal designation, and was selected on the basis of background, expertise and experience. It is worthwhile to ponder their responses.[22]

Each was asked one question:

What is the HBU of a vacant site that has been impacted by a natural disaster?

Selected excerpts follow:

Response 1: "This relates to the issues I dealt with on properties around the World Trade Center in New York City. It was catastrophic, although not natural. The issue is the effect to which the site's potential for use is elimi-

nated or deferred. Both situations measure the difference between the best green space and the probable use as the measure of loss.

"The HBU model is reversed. Instead of using the physical, legal and other attributes to identify profitable use, the elements are used as constraints to eliminate uses that are not probable. A major issue can be the infrastructure constraints for current uses such as utilities that restrict use based on capacity and needs.

"Consideration of uses is highly dependent on situs or level of related land use in the impacted area. What uses are interdependent? Does this vary from prior relationships? What are the opportunity costs related to changes?"

Response 2: "Much of the analysis would depend on the type of disaster and whether damage can be mitigated through the construction process. Stigma would be an important consideration."

Response 3: "The HBU is so likely to change that the appraiser needs to be open to a wide range of changes. The valuation may increase if the surrounding area was destroyed, making assemblage feasible. Of course, it could be lowered if the whole area were to be abandoned.

"The appraiser must speculate that new zoning or restrictions on development would be put in place to prevent future disaster problems. In that case, the long-term use would be consistent with the most probable of the legally permissible uses while the short-term use may be a currently permissible use."

Response 4: "We find that a contaminated event impacts the physical uses in a number of ways…. Of those uses which may be physically possible, some are restricted because of complex legal considerations. Of the uses that are both physically and legally possible, some are not feasible financially because of differential costs of remediation.

"Part of the maximally productive criteria is to examine the marginal cost of remediation versus the marginal benefits for different property types. For example, the marginal cost for residential remediation, over and above industrial, makes the residential use non-feasible, but the industrial is still possible. Both uses are feasible, and the marginal cost compared to marginal benefit changes can reorder the final choices."

Response 5: "My only direct experience was with the 1989 San Francisco earthquake. It did not change the HBU of any sites. The appraiser would need to consider the local zoning codes as they would not be suspended in a disaster.

"In land situations when there is no indicated economically feasible use, I could see rewriting the zoning and planning codes as an opportunity to achieve the best use since there would be no vested interests to fight for the status quo.

"My opinion in answer to the question is that an altered HBU definition may be the best solution, not only in natural disasters, but in other cases where there is no viable market.This project will lead to a better understanding of the sales approach and the appropriate methodology to use in the absence of relevant sales data."

Response 6: "Any influence on HBU would depend on the nature of the disaster. It (HBU) includes not just the use, but the user and the timing of the use. An event such as Katrina would change the supply and demand relationships that would influence the financial feasibility. The appropriate use might be to hold until the market recovers."

OTHER TYPES OF VALUE: MOST FITTING USE AND MOST PROBABLE USE

Highest and best use includes the maximizing goals of the community and the wealth-maximizing goals of the individual.[23] The analysis selects one point that is the single highest value derived from the intersection between the community needs and the financial and economic possibilities over a long-term period.

A practical, more operational, concept called "most fitting use" (MFU) was offered by Graaskamp to guide longer-use analysis:

> MFU is the use that is the optimal reconciliation of effective consumer demand, costs of production, and the fiscal and environmental impact on third parties within physical capacities of the land. Reconciliation involves financial impact analysis on "who pays" and "who benefits."[24]

MFU is more than simple semantics. It relies on different criteria, uses satisfaction as opposed to maximization and permits the appraiser to consider a range of uses as opposed to only one point.[25]

> Another concept, "most probable use" (MPU), presented by Kinnard, is a shorter-period HBU definition to better explain land use decisions made by individuals:

Most probable use is something less than the most fitting use, depending on the topical constraints imposed by current political factors, state of real estate technology, and short-term solvency pressures on consumer, producer, or public agency.[26]

Graaskamp's MFU is viewed as a feasibility fit that found the best choice after all alternative uses were evaluated.

> MPU lies within the longer-period analysis of MFU, and represents the most likely uses of the property by remaining within the constraints that are specific to the property. It relates the characteristics of the property to specific appraisal methods, such as the four typical criteria used to reach a HBU decision.

Different Criteria. Nine criteria can be used to delineate the differences among HBU, MFU, and MPU.[27]

Decision Criteria	maximizing vs. sacrificing
State	static or dynamic
Risk	certainty vs. uncertainty
Time	long -term vs. short- term
Perspective	macro vs. micro
Orientation	policy vs. market
Nature	normative vs. pragmatic
Application	portfolio vs. individual
Logic	deductive vs. inductive

New D-HBU. Using this set of criteria to evaluate the new D-HBU, characteristics of both MFU and MPU are included. For example, the application is most likely individual, but can certainly become a portfolio decision depending on the extent of the impact. The nature probably is pragmatic, but could have elements of normative relative to the situation. The timing of the decision has been stated earlier to be mainly short-run to avoid speculation but, again, could become longer relative to the circumstances. This analysis illustrates that a new paradigm is needed with a new definition as elements of HBU, MFU and MPU are all involved.

OPINIONS FROM THE U.S. APPRAISAL FOUNDATION

The U.S. Appraisal Foundation recently issued Proposed Guide Note 10 to give appraisers guidance in developing an opinion of market value in the aftermath of a disaster. Several selected points from this Guide Note are considered here:[28]

Any appraisal problem must be approached using recognized appraisal methodology…regardless of whether market conditions are their most chaotic. This article is recommending that a new concept of HBU and a new appraisal technique—contingent valuation to estimate value directly—be created. These are needed because the typical appraisal methodology is not applicable due to an absence of market data.

Effective purchasing power might be impacted by changes in lending policies and practices in the area in response to the disaster.

Effective purchasing power of the current and potential owner will have a major impact on the eventual user of the property.

The appraiser must be especially mindful of issues relating to the date of value. Timing of the HBU decision is a major consideration. The new HBU definition recommended here gives emphasis to a shorter-period concept to mitigate speculation.

The difficulty in these retrospective valuations (prior to the disaster) is that the appraiser cannot obtain firsthand information about the characteristics of the property that are relevant to the assignment as of the date of value.

The new D-HBU uses the same rationale to recommend that a new valuation technique is needed that relies on post-impact information only.

Is "market value" the right question?

No, it is not the right question, as many of the criteria upon which market value is based are not satisfied. The new D-HBU recommends a "fair and just" value.

Is the appraiser competent with respect to: (1) property type; (2) market; (3) geographical area; and, (4) analytical method?

All of these points are relevant. One purpose of this article is to provide better tools for the appraiser to use in this special assignment.

As has been illustrated, the Guide Note includes relevant and important points. It does not, however, address the "how to" procedure that is needed in the current marketplace.

SUMMARY AND RECOMMENDATION

A void exists in the professional literature for the estimation of post-disaster real property value. Orderly

economic development uses an insurance value for determining insurance liability claims, transaction prices for sellers and buyers, and financing. This follows the USPAP process that is formalized in the U.S. as a common denominator, and recommends several new concepts and procedures to be used in a global post-disaster market. The result should contribute significantly to orderly real estate development.

Three questions have been answered. First, the typical criteria that drive the market value definition, HBU decision and vacant site valuation approaches are not satisfied in a situation where a disaster has impacted the marketplace. A new definition of HBU suggested here, labeled a "disaster HBU," is warranted and merits further discussion.

Second, the appraiser can adopt the new definition and approach to value under conditions in which the marketplace has been essentially destroyed. The burden of proof lies with the analyst.

The new valuation tool recommended is a version of contingent valuation that directly asks the respondent to value the property as opposed to a tool that is used to assess damages. Although the recent literature has contained several studies that have criticized its accuracy, a well-crafted survey document may not yet be within the appraiser's toolkit.

Third, the weight of the discussion above and the selected opinions of informed individuals lean in the direction of a new paradigm. This very special market situation occurs with sufficient frequency to call for attention.

An important recommendation is that the new D-HBU be subject to further discussion, scrutiny and word-smithing in an appropriate and public context to produce the ideal semantics and procedure.

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Ethics Versus Compliance

BY BOWEN H. 'BUZZ' McCOY, CRE

Recent articles in *The Wall Street Journal* reported a renewed emphasis on ethics on the part of the newly appointed dean at Harvard Business School. The finance-caused current recession has raised issues of fraud and corruption in several sectors of society. As a result, in part from well-intentioned advice from legal and public relations counsel, it appears several prominent financial institutions seem to have forgotten the distinction between being legal and being ethical.

Several hundred years ago the Renaissance poet Dante Alighieri explained the difference in a famous letter to his sponsor and protector, Con Grande. In it, he described how he thought his great poem "The Divine Comedy" should be read. Dante felt the poem should be read on four levels simultaneously. First there is the **literal** level, the surface story. Apparently it became the practice for some financial institutions to place their own interests ahead of their clients and in so doing, traded against them. Then there is the **allegorical** level, the myths and heroes we use to drive our firms' culture. In the words of "Liars' Poker," it is the guy with the "big swinging _____" who did the biggest trades and made the most money. Then there is a deeper **moral** level of what society expects of us through custom and the law. We ignore the public concept of good and bad behavior at our own peril. Living right up to the line of acceptable and legal behavior is highly dangerous, and none of us is clever enough to NOT slip over the line on occasion. Society is surprisingly adept at detecting the cynicism of utilizing the law for one's own benefit.

Finally, Dante would say, there is the deepest level of **ethics**, nourished by humanism, nature, religious practice, and the like. The best firms live beyond the law, in the sense that they are attuned to the deeper values of society. These values are imbedded into their culture. A cynic might say that "you get your loving at home," but the highest levels of performance and the fewest problems occur when employees feel they can live out their deep values in the work place.

In an ethical work environment, employees know what the limits are and they are less likely to play it close to the line. Who we are today defines who we will be tomorrow. As we have seen, without a strong values-based culture and some fixed points, individuals are more likely to fall down the slippery slope of sloppy behavior, leading to embedded bad practices, creating in turn, civil crime and, ultimately, criminal behavior.

The British writer of Christian literature, C. S. Lewis, demonstrated this theory in an address to students at the University of London in 1944:

About the Author

Bowen H. 'Buzz' McCoy, CRE, *is a retired investment banker. He was responsible for the real estate finance unit at Morgan Stanley for many years. McCoy is a past president of The Counselors of Real Estate and a Life Trustee of the Urban Land Institute. His recent two books are:* The Dynamics of Real Estate Capital Markets: A Practitioner's Perspective *(Urban Land Institute, 2006) and* Living Into Leadership: A Journey in Ethics *(Stanford University Press, 2007).*

Ethics Versus Compliance

"And the prophecy I make is this. To nine out of ten of you the choice which could lead to scoundrelism will come, when it does come, in no very dramatic colors. Obviously bad men, obviously threatening or bribing, will almost certainly **not** appear. Over a drink or a cup of coffee, disguised as a triviality and sandwiched between two jokes, from the lips of a man, or woman, whom you have recently been getting to know rather better and whom you hope to know better still—just at the moment when you are most anxious not to appear crude, or naïf [naïve], or a prig—the hint will come. It will be the hint of something which is not quite in accordance with the technical rules of fair play: something which the public, the ignorant, romantic public, would never understand; something which even the outsiders in your own profession are apt to make a fuss about; but something, says your new friend, which "we"—and at the word "we" you try not to blush for mere pleasure—something "we always do." And you will be drawn in, if you are drawn in, not by desire for gain or ease, but simply because at that moment, when the cup was so near your lips, you cannot bear to be thrust back again into the cold outer world. It would be so terrible to see the other man's face—that genial, confidential, delightfully sophisticated face—turn suddenly cold and contemptuous, to know that you had been tried for the Inner Ring and rejected. And then, if you are drawn in, next week it will be something a little further from the rules, and next year something further still, but all in the jolliest, friendliest spirit. It may end in a crash, a scandal and penal servitude: it may end in millions, a peerage and giving the prizes at your old school. But you will be a scoundrel."

In order to be termed a profession, a business activity must have an underlying ethic which is broadly understood and goes beyond just making as much money as you can. A profession serves client needs and is based upon layers of trust relationships. There is a stakeholder theory of ethics which states that the more broadly, creatively and imaginatively a firm defines its stakeholders—the parties affected by its actions—the greater chance it will serve society ethically. By narrowly defining the affected parties, one is driven to hubris and self-aggrandizement, and ultimately to failure.

Compensation systems should be designed to support character and culture, not "winner take all." Compensation pools should be based on productivity, but in the determination of individual bonuses, account must be taken of training, recruiting, compliance, character, trust, sustaining the corporate culture, and the like. On the margin, a bad actor who claims he can get a higher payout across the street should be encouraged to "take a hike," thus reinforcing the message across the board. On a trading floor, turret leaders of groups of three to four should be coaches and transmitters of the values and culture.

"In order to be termed a profession, a business activity must have an underlying ethic which is broadly understood and goes beyond just making as much money as you can."

Regulation, while it can be mind-numbing and bureaucratic, can also be freeing. It is helpful to know what the limits are. Investment banking and public accounting are two professions where certain firms caused the standards to be lowered for all the firms in the business. It was a case of Gresham's Law: bad currency driving out the good. Drexel and Enron drove down business standards while cynically "reinventing" the business. The Peters and Waterman "tight/loose" theory is applicable. It is important to be rigorous about certain core values and constraints and to provide freedom for innovation and creativity around those cores.

Above all, a professional business is about building trust relationships with clients, fellow employees, the government, shareholders, and the general public, one by one, and sustaining them by your performance over many years. ■

CRE Global Outreach: The Kenyan Student Exchange Program

BY MAURA COCHRAN, CRE, SIOR

INTRODUCTION

The Counselors of Real Estate (CRE) has established a small-scale student exchange program in one of the last emerging global markets: Africa.

Funded by The CRE Foundation (formerly known as the James E. Gibbons Educational Development Trust Fund), the program brought three Kenyan students from the Kenya School of Monetary Studies (KSMS) to New York City in May 2010. In June 2010, three CREs went to Kenya to speak at a high-level conference concerning real estate finance and to interact with educators and students at KSMS. The workshop brought together bankers, regulators, practitioners, researchers, academic and senior policymakers. This essay summarizes the interviews that the author had with those participants: Howie Gelbtuch, CRE; Sam Kuckley, CRE; Byron Koste, CRE; Tom Justin, CRE; and Kenyan students Nancy Atieno Jamal, Florence Apondi Amuok and Sylvia Wanjiru Kimani. CRE Hugh Kelly, along with Gelbtuch. Kuckley, Justin and Koste, helped host the exchange students while they visited in New York City.

BACKGROUND

KSMS, the government's finance business trading school, was established in 1997 to provide training for existing and prospective members of the financial sector and to future bankers of East Africa (Kenya, Tanzania and Uganda). The school is backed by two important Kenyan government agencies: the Central Bank of Kenya (CBK), the equivalent of the U.S. Federal Reserve, and the Kenya Ministry of Finance (MOF). School enrollment has averaged about 1,700 students over the past three years.

The idea for the exchange program began in the summer of 2009 via a request from the International Real Property Foundation to Howie Gelbtuch to travel to Nairobi to work with KSMS to provide assistance in evaluating and negotiating bids to expand and rehabilitate the school.

While there, Gelbtuch worked closely with the school's executive director, Professor Kinandu Muragu, who spent his childhood in a village not far from the current campus. Upon Gelbtuch's return home, and aware of the CRE desire to fund projects though The CRE Foundation that make a difference, he submitted an application for the first phase of the project—the exchange of Kenyan students with CRE educators.

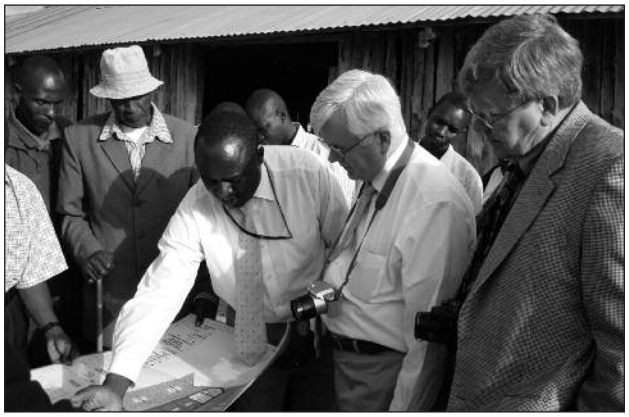
The Foundation looked closely at the ability of this program to make an impact. It was impressed with the school's leadership, and noted that many of the staff have advanced degrees from schools in the U.S. or the United Kingdom, which would aid in facilitating this joint effort. KSMS' 50-acre campus is located in Nairobi. It provided the physical platform in terms of classrooms, security and accommodations for the exchange program.

About the Author

Maura Cochran, CRE, SIOR, *joined Bartram & Cochran in 1987 and has worked in the commercial real estate industry for more than thirty years. She practices both national and local consulting and project implementation, including due diligence analysis, adaptive reuse studies, marketing plans, and corporate relocation assignments. Her active involvement with The Counselors of Real Estate (CRE) and the Society of Industrial and Office Realtors (SIOR) gives her excellent access to market information nationwide.*

THE ISSUE IS HOUSING

The CREs who traveled to Kenya (Justin, Kuckley and Koste) focused on one main issue—housing. As with many developing nations, there is, in Kenya, a major migration from rural to urban areas, which is leading to housing shortages. As is now typical around the world, financing is tight. Governments and banks in Kenya are looking for financing solutions that will *not* lead to a housing bubble or other issues. They are looking at changing the laws to enable pension funds to buy bonds to be used to provide mortgage money. The local press reports that "the government plans to change the building code to allow a wider range of acceptable construction materials apart from brick and mortar to accelerate provision of cheaper and decent houses in urban areas."



Center to right: Mohammed Munyanya, architect, Adventis Inhouse Africa Ltd.; Tom Justin, CRE; and Byron Koste, CRE. The three are reviewing are project plans in Nairobi.

THE ISSUE IS UNDERWRITING

At the conference, Koste pointed to current global trends: "To achieve market demand sustainability there should be smart growth—putting people where jobs are to reduce traffic, and green buildings that are energy efficient and allow for natural light and free flow of clean air." He said that housing development should be planned based on "the current, most likely scenarios."

Justin brought lessons learned from the 2006–2007 real estate bubble. He told the group that "…there was a massive lending at low interest rates. The exuberance characterized by herding behavior and greed are other factors that fueled the crisis." As reported in a local paper, *Smart Money*, the panelists said that "fear gripped the market, credit dried up, transactions dwindled, property performance levels plummeted as demand decreased and prices plunged further. In Kenya, the prohibitive cost of land and lack of essential infrastructure have stifled the growth in construction."

The panelists reported that the combination of the lack of data on all property types and the obsolescence of existing data impacts the creation of accurate appraisals. It is the Kenyan custom to commission two appraisals and average the values. Also, there is no reliable system of title insurance. Request for Proposals (RFPs) for professional services are the reverse of the U.S. method of stating a scope of work and requesting a fee. In Kenya, the RFP states the fee up front and the respondents propose what the developer will get for that amount of money. However, fees for construction management do vary. But the main difference is that corruption is a way of life there. They reported some progress on that front as some universities' developers have posted "corruption-free zone" signs at their campuses' construction sites.

THE TAKE-HOME VALUE

The real value of the program is described by one of the exchange students, Florence Amuok:

"The U.S. real estate industry is far much advanced in comparison to Kenya. I was impressed with the fact that developers are keen in finding out what the market desires and construct units according to the demand side of the market. The LEED certification is a noble idea in the real estate industry considering the global concern of global warming; this is a big plus in the industry. This is one idea I would love to see getting implemented in Kenya, which will not only save cost, but will make the environment a better place to live in. In Kenya the scenario is totally different.

"Here, the focus is not really from the demand side but the supply side. Developers come up with units with their own designs then market what they have, which in most cases tend to be fully sold out (in relation to condominiums or residential units) or having at least 95 percent occupancy (in terms of apartments or commercial units), upon completion of the project because every Kenyan is eager to own property. This has been so for the past three years with the influx of 'piracy money', which is causing a major debate where different stakeholders are arguing whether or not the steady skyrocketing prices of houses is as a result of this money or not.

"The most valuable lessons learnt from the U.S. experience is that financial institutions are the backbone of any

Left to right in New York City: **Byron Koste**, CRE, executive director emeritus, University of Colorado Leeds School of Business, Boulder, Colo.; **Howard Gelbtuch**, CRE, principal, Greenwich Realty Advisors, Incorporated, New York City; **Jamie Gelbtuch**, principal, Cultural Mixology; **Nancy Atieno Jamal**, Kenya student; **Florence Apondi Amuok**, Kenya student; **Sylvia Wanjiru Kimani**, Kenya student; **Samuel Kuckley**, CRE, director, TIAA, New York City; and **Thomas Justin**, CRE, principal, The Weitzman Group, Inc., New York City.

economy. One thing which Kenyan banks are keen on is the risk a borrower poses to the institution. When a mortgage application is made, ALL financial institutions conduct a thorough scrutiny of the borrower, the most important determinant of whether the facility will be granted or not depends on the creditworthiness of the borrower. There has to be some evidence showing that a borrower has a stable source of income and the disposable income at any one given time. If you ask me if Kenya is safe from the U.S. experience of overzealous lending, I would say yes. But this does not mean that we are totally safe.

"Currently, the real estate sector is contributing a significant amount to the GDP. While everyone is worried about the steady increase of housing units and the rate at which banks are competing with each other to the extent of almost hawking their financial products to the suitable market, (which sounds very familiar in the U.S. prior to the credit crunch), the real danger lies in the extent to which our GDP depends on the thriving of the real estate industry. Hugh Kelly made me reason from this perspective. Kenya may not necessarily experience the exact happenings as those in the U.S., but caution has to be taken to ensure that a failure in the real estate industry does not cripple the economy due to the contributions to the GDP.

"We have a long way to go as a country but we are slowly getting there. With the improvement of infrastructure, such as having a mass transportation system (which is unavailable currently—we depend 100 percent on buses and private vehicles which cause a lot of congestion in the city and towns), we can steadily reach to the desired level of development. I would like to see developers in Kenya consider having a fraction of affordable units in their projects. There is no such consideration at the moment but I think with government promising tax concessions to such developers, things will happen. It [is] rare in Kenya to have condos or even apartments within the city centre, which I think should change so as to salvage the hours wasted in traffic jams.

"My U.S. experience was totally amazing and I would forever cherish the memories of the well designed architectural buildings of the city of New York, the ever busy streets and most importantly, the friendly, humble and down-to-earth people."

THE FUTURE OF THE PROGRAM

Participants in the Kenyan project are hopeful of expanding the program. Kelly, clinical professor of real estate at New York University's Schack Institute of Real Estate, is exploring ways that the school can conduct a joint program. Gelbtuch is also exploring various avenues of continuing and expanding these types of international programs. ■

REFERENCES

Student exchange program participants
Kenyan newspaper *Smart Money*
Kenyan newspaper *Business Daily*

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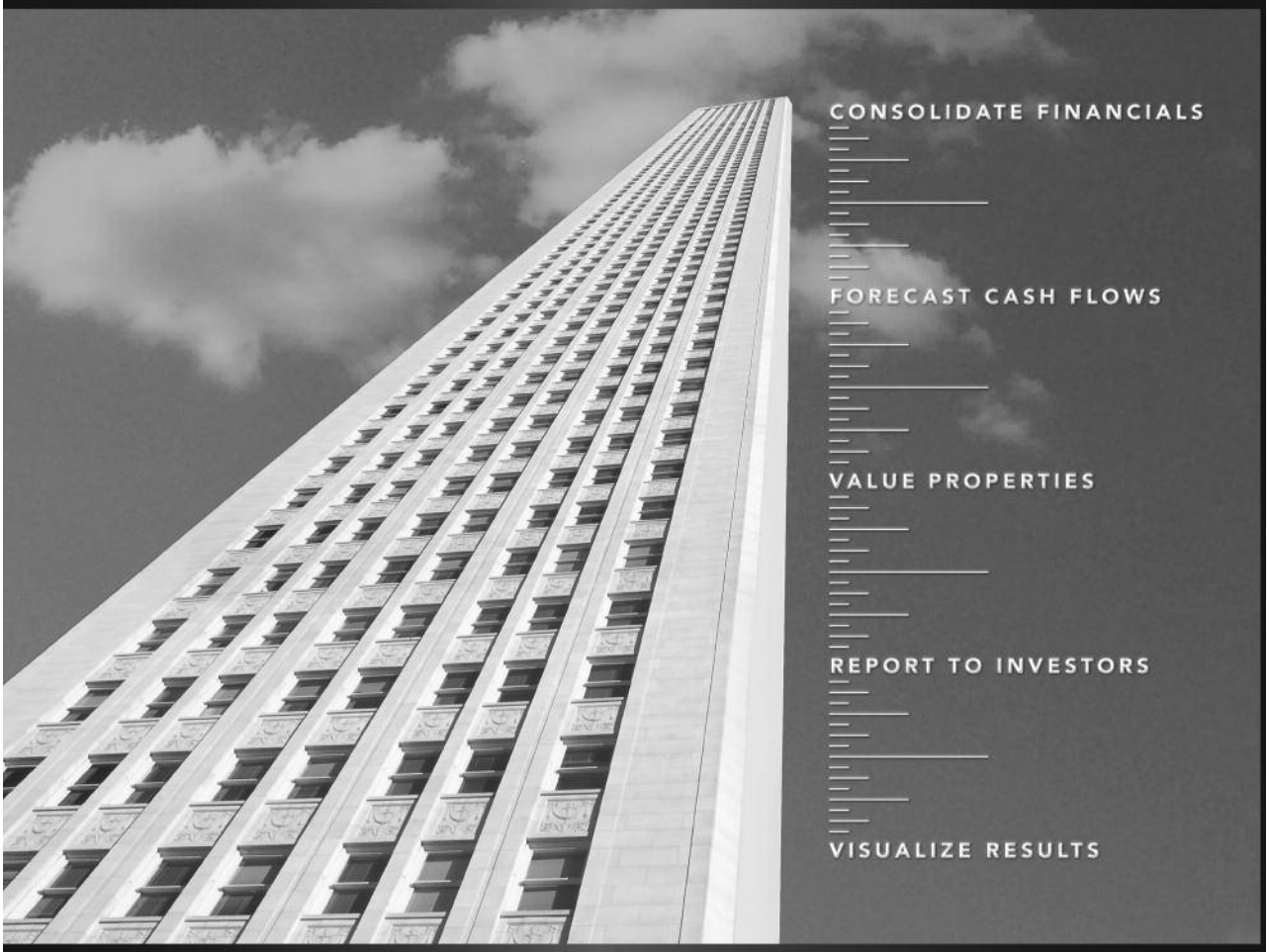

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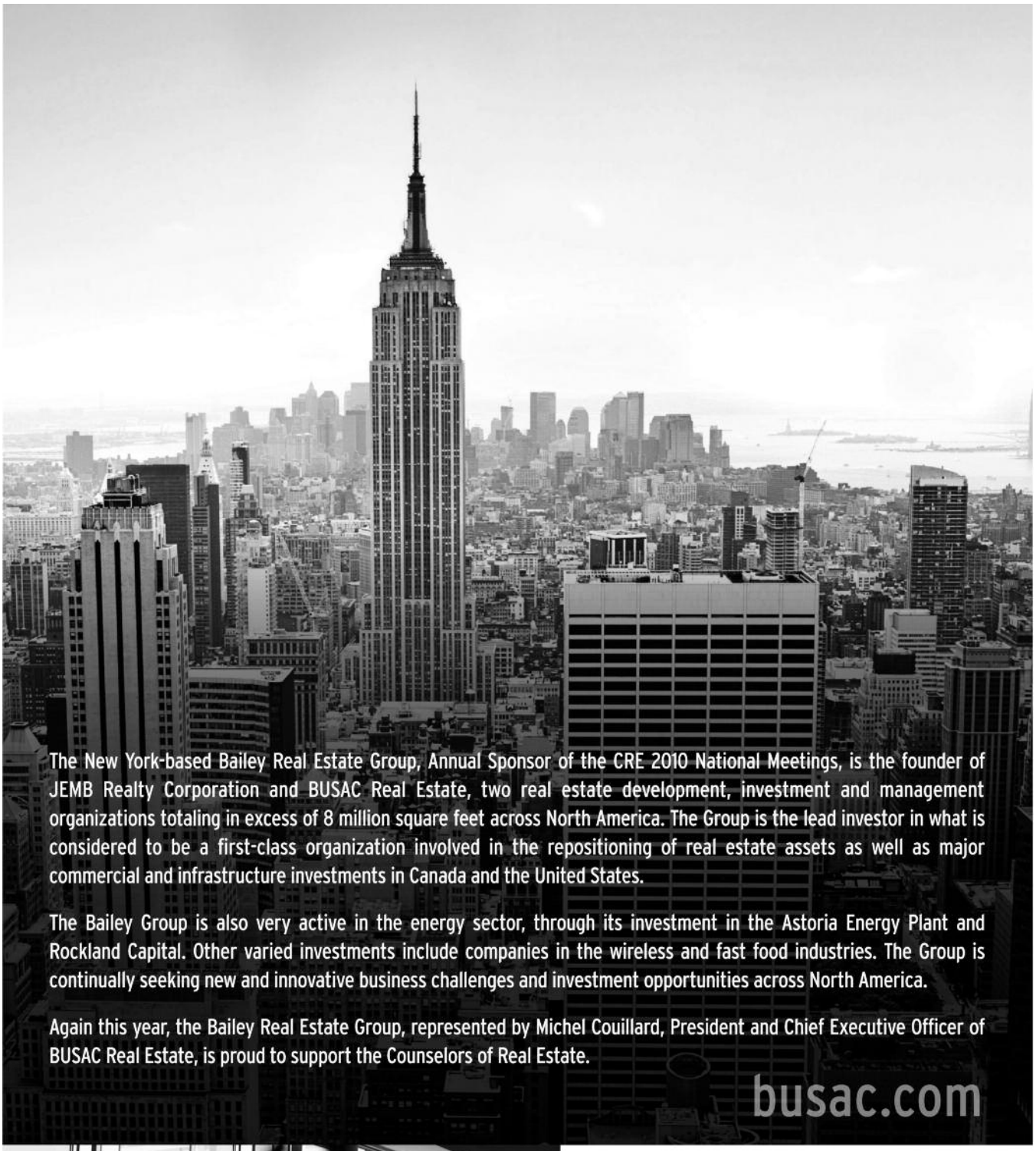

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