

# REAL ESTATE ISSUES®

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## SPECIAL DOUBLE ISSUE

### FEATURES AND PERSPECTIVES

Federal Forfeiture of Real Estate in Practice: A New Form of Eminent Domain?

Selection of the Winning Office Investment Market: Case of Tokyo

Best Practices in High-Performance Office Development: The Duke Energy Center in Charlotte, North Carolina

Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market

Retail Space in the Future: How Technology has Changed the Way We Shop

Mortgage Fraud: Current Trends and Issues

The Case for the Return of CMBS

The Failed Experiment of Vancouver's 2010 Olympic Village

### CASE STUDY

Determining Real Estate Damages from Natural Disasters:

Real Estate Counseling in Class Action Litigation—Lessons from Hurricane Katrina

### RESOURCE REVIEWS

*Privatizing Military Family Housing: A History of the U.S. Army's Residential Communities Initiative, 1995–2010*



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### Federal Forfeiture of Real Estate in Practice: A New Form of Eminent Domain?

*Patricia S. Wall, J.D., CPA M.B.A, Ed.D.; and Lee Sarver, Ph.D.*

The owners of the Motel Caswell in Massachusetts currently are contesting the federal forfeiture of this motel in federal court. The United States Department of Justice asserts that the property should be forfeited under federal law on the ground that it had been used in connection with recent drug activities—eight convictions of hotel patrons for drug-related crimes between 2001 and 2008. The owner has not been convicted of any crime. Is this another area in which the federal government is unlawfully overruling state power? Will this case spawn revisions to forfeiture laws similar to the revisions of state eminent domain statutes that followed *Kelo v. City of New London*? In this article, the authors examine the issues.

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### Selection of the Winning Office Investment Market: Case of Tokyo

*Chihito Shimizu Ph.D., CRE*

Following the collapse of Japan's economic bubble in 1991, the country's economic growth slowed. Since then, the office market has suffered high vacancy rates, and there have been many cases where office buildings have had to be rebuilt. This trend is expected to increase in the midst of a precipitous decline in the size of the working-age population. When undertaking an office investment under such circumstances, it will be essential to select an investment property and the area in which such property is located with great care. In this article, the author identifies the signals used to determine market selection with respect to an office investment, and distinguishes areas that will continue to maintain strong fundamentals and potential value in the office investment market going forward. While there are limitations to applying these analyses to other cities with strict land use regulations, this analysis of the Tokyo office market, where population decline and aging are progressing at the fastest rate, can serve as an important guide.

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### Best Practices in High-Performance Office Development: The Duke Energy Center in Charlotte, North Carolina

*Thomas A. Dorsey, MAI, SRA, and Dustin C. Read, Ph.D., J.D.*

This article explores the financial benefits of LEED-certified office development by reviewing the existing academic research and analyzing the results within the context of the Duke Energy Center in Charlotte, North Carolina. Compelling evidence is presented to support claims that high-performance assets of this type are capable of achieving rent premiums, higher occupancy levels and operating efficiencies in the areas of water and energy consumption. The analysis also suggests that these financial benefits are often sufficient in size to offset any construction cost premiums required to bring high-performance office buildings to market. Best practices used throughout the development of the Duke Energy Center may therefore serve as an example for similar projects in the future.

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### Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market

*Charles A. Smith, Ph.D.; Rahul Verma, Ph.D.; and Justo Manrique, Ph.D.*

In this article, the authors present a straightforward useable technique that practitioners in the field can use to help forecast absorption of apartment units. The data indicates in the sample market area, Houston, Texas, that for the previous ten years, for each eight-plus (8.79) jobs created; one additional apartment unit became occupied. This information is especially useful when appraisers, land planners, consultants or others are attempting to estimate how long it will take for a single new apartment complex to reach stabilized occupancy, or how long it might take for an entire overbuilt market to reach equilibrium in terms of balance in demand and supply.

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### Retail Space in the Future: How Technology has Changed the Way We Shop

*Christine Carlyle, AIA, AICP*

The digital world is invading all facets of life, with lasting impacts on how we live now and in the future. Internet shopping is pervasive and incredibly convenient, posing a significant threat to the bricks and mortar stores. With retail vacancies causing concerns in many communities, the future of the retail district is being called into question. Will the virtual shopper still go to real stores or will the retail website replace the goods and services offered in the physical store? This debate is taking place everywhere and with every purchase. In this article, the author discusses why the physical shopping experience may need to change and offer more of an authentic human experience to compete with virtual sales.

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### Mortgage Fraud: Current Trends and Issues

Nicole Forbes Stowell, J.D., Katherine Barker-Cagwin, Ph.D.,  
and James Fellows, Ph.D.

The Great Recession of the past few years and its parallel “meltdown” of the real estate market have had a sinister “underbelly” to it. The perpetration of fraudulent real estate transactions was, and still is, widespread, especially in the mortgage industry. This article surveys the more common types of mortgage fraud, to include such criminal methods as short sale schemes, foreclosure rescue schemes, builder bailout schemes, straw buyer schemes, and mortgage loan origination schemes. The article also describes some of the actual cases that depict these fraudulent transactions, and reviews some of the techniques that real estate professionals can use to protect their clients, and themselves, from becoming victims of these frauds.

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### The Case for the Return of CMBS

Thomas A. Fink, CRE

Commercial mortgage-backed securities (CMBS) was a significant source of long-term capital for commercial real estate from the mid-1990s until the time of the financial crisis in 2007–2008. CMBS issuance went to near zero at that point, and has been on the road to recovery since 2009. In this article, the author presents a case for the return of the CMBS market as a viable source of capital in the future. The case is based on strengthening real estate fundamentals, renewed interest in CMBS by investors and the competitive environment among commercial real estate capital sources.

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### The Failed Experiment of Vancouver's 2010 Olympic Village

William P.J. McCarthy, CRE

This article is a cautionary tale for cities that dream of hosting the Olympics, and explores the fallout, financial and otherwise, for the City of Vancouver. In 2003, the city won the international bid to host the 2010 Winter Olympics. Included in the bid was a commitment to expend \$30 million on athlete accommodations, known as Vancouver's Olympic Village, for the two-week event. The author, himself a resident of Vancouver, describes the continuing financial risk the city faces as the result of the decisions made in building this development.

## CASE STUDY

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### Determining Real Estate Damages from Natural Disasters: Real Estate Counseling in Class Action Litigation—Lessons from Hurricane Katrina

Richard J. Roddewig, CRE, MAI, FRICS, Charles T. Bridgen, CRE, ASA, FRICS, and Gary R. Papke, CRE, MAI, FRICS, AICP

In the wake of Hurricane Katrina, hundreds of lawsuits, including two major class actions in Federal District Court, were filed against the U.S. Army Corps of Engineers, local levee districts and others alleging negligence in the design and construction of the dike system protecting New Orleans. This case study discusses the role that real estate counselors working for the defendants played in addressing how the variations in property types, physical construction characteristics, uses, neighborhoods, flooding levels, and other factors caused property-by-property analysis (rather than class certification) to be a more fair and accurate way to determine damages.

## RESOURCE REVIEW

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### Privatizing Military Family Housing: A History of the U.S. Army's Residential Communities Initiative, 1995–2010

Reviewed by Peter L. Holland, CRE

As reviewer **Peter Holland**, CRE, notes, this book “is an advocacy piece” as well as a history of U.S. Army military housing, but it might not have been written at all if not for the innovative thinking and efforts of **CRE Mahlon “Sandy” Apgar, IV**. In his role as Assistant Secretary of the Army for Installations and Environment beginning in 1998, Apgar envisioned the public-private partnership endeavor called the Residential Communities Initiative that exists today as the most successful solution to modernizing Army military housing, and personally guided it from concept to fruition. Today this initiative continues as a model for providing troops with modern housing.

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# Editor's Note

BY PETER C. BURLEY, CRE



*"We are made wise not by the recollection of our past, but by the responsibility for our future."*

—GEORGE BERNARD SHAW

PERHAPS IT IS THE ELECTION SEASON THAT HAS GOT ME thinking about it, I can't say for sure. But I was, and I remain, a fan of the television series "The West Wing." And, one of my favorite scenes in that drama is of an exchange between the Leo McGarry (White House Chief of Staff) character and the Josh Lyman (Deputy Chief of Staff) character in which Leo tells Josh the following story:

"This guy's walking down the street when he falls in a hole. The walls are so steep he can't get out.

"A doctor passes by and the guy shouts up, 'Hey you. Can you help me out?' The doctor writes a prescription, throws it down in the hole and moves on.

"Then a priest comes along and the guy shouts up, 'Father, I'm down in this hole can you help me out?' The priest writes out a prayer, throws it down in the hole and moves on.

"Then a friend walks by, 'Hey, Joe, it's me can you help me out?' And the friend jumps in the hole. Our guy says, 'Are you stupid? Now we're both down here.' The friend says, 'Yeah, but I've been down here before and I know the way out.'"

—West Wing, Episode #32, "Noel," written by Aaron Sorkin (teleplay) and Peter Parnell (story)

As of this writing I have no idea how the election turned out. I'm not really sure it matters as much as the campaigns or the media would have us think. We will continue to make progress, and our industry will continue to improve regardless of the rhetoric (think prescriptions and prayers being tossed down into the hole). And, once ad buys turn from the election season to the holiday season, I have a feeling things might *feel* better anyway.

We will continue to climb out of the hole we fell into back in 2008. There are plenty of signs, in a number of quarters, that we have just about reached the edge already. The fundamentals in commercial real estate are close to some kind of normality, and any kind of acceleration in the global and U.S. economies could put us over the top sooner than we might otherwise expect.

Sure, there's plenty of uncertainty out there. And, there are plenty of reasons to be cautious. But, I am a pretty optimistic person; I know some of the best of the best in the industry, assembled among the membership of The Counselors of Real Estate®. (I can name more than a few CREs who would willingly jump—and many who have jumped—into a hole with us, if need be, because Counselors are like that.) And, while the hole may have been deeper than any of us can remember, we have those people to show us the way out. If anyone can, it'll be The Counselors in their myriad, diverse roles in this industry. The skill, talent, ability, the knowledge, wisdom, the collegiality, and the outright personal and professional generosity of the members of this organization continue to astound me.

In this edition of *Real Estate Issues* we offer a range of articles, covering a variety of areas of interest to the reader.

Authors Patricia S. Wall, J.D., CPA, Ed.D., and Lee Sarver, from Middle Tennessee State University take a hard look at federal forfeiture law in discussing property seizures under federal laws on the grounds that such properties had been used in conjunction with illegal activities (drugs). Questions raised in their article, "**Federal Forfeiture of Real Estate in Practice: A New Form of Eminent Domain?**" include whether federal forfeiture law is too



broad, whether 'equitable sharing' (in which local government share in the proceeds of the sale of such properties) is being abused, and whether a challenge of forfeiture law might result in revisions in similar fashion to revisions of eminent domain statutes after the Kelo decision.

**Chihiro Shimizu, Ph.D., CRE**, looks at the **"Selection of the Winning Office Investment Market: Case of Tokyo,"** in an economy that currently faces the most rapidly aging population among developed countries. Critical questions are being raised in the Tokyo office market, as the Japanese birthrate declines and as the population decreases. A number of questions are raised in a market where future office demand is questionable and prices are at risk. The author looks at the overall market in Tokyo and the submarkets with the strongest and weakest risk-adjusted returns.

While LEED certification is the standard, with all the benefits such certification brings to high-performance, Class A assets, "real estate investors must evaluate the financial viability of LEED-certified projects using traditional valuation methodologies," say **Thomas A. Dorsey**, senior vice president of Wells Fargo's Corporate Properties Group, and **Dustin C. Read, Ph.D.**, of the Center for Real Estate at the University of North Carolina at Charlotte. In their article **"Best Practices in High-Performance Office Development: The Duke Energy Center in Charlotte, North Carolina,"** the authors look at the development and operation of the Duke Energy Center, which was the first building to earn a LEED Platinum Core and Shell certification under version 2.0 criteria. The article covers some of the cost savings in construction and operation, the likely value premium at time of sale and the LEED certification as a marketing tool for attracting tenants.

In **"Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market,"** authors **Charles Smith, Ph.D., Rahul Verma, Ph.D., and Justo Manrique, Ph.D.**, of the University of Houston - Downtown, offer a simple and straightforward technique to forecast demand for apartment units and trends in rental rates. "The crux of the idea presented in this paper," the authors state, "is that there is a long term somewhat stable relationship between net new jobs created and absorption of space." For instance, in the data used in this analysis, for Houston, one additional apartment is occupied for each 8.79 jobs created. The authors suggest that the technique developed in the

article can be used by a number of different constituents in the field and applied to other property types as well.

"With more purchasing power moving towards Internet sales, communities need to think about what factors sustain their retailers and how much retail is sustainable," says **Christine Carlyle** of Solomon Cordwell Buenz (SCB) in Chicago. In her article **"Retail Space in the Future,"** Carlyle discusses how the use of technology is transforming retail real estate models. While in the past, the retail experience was a physical one, focused on convenience and price and experience, technology has added a new virtual dimension. As we have learned in the not-so-distant past, there are many communities that are heavily 'over-retailed' and the competition from technologically oriented retailing is an enormous challenge to property owners and local planners and governments. Carlyle concludes, "Convenience shopping is transforming into concepts around place-making, lifestyle and event programming to create a greater interactive experience."

Short sale scams, foreclosure 'rescue' scams, builder bailout scams, straw buyers, and loan origination schemes have become nearly epidemic in the recent housing market downturn that has put extraordinary pressure on homeowners. Authors **Nicole Forbes Stowell, J.D.**, of University of South Florida, **Katherine Barker-Cagwin**, Zayed University - Abu Dhabi, and **James A. Fellows, Ph.D.**, offer a discussion of current developments in **"Mortgage Fraud: Current Trends and Issues."** The authors tell us that there are two distinct ends for which fraud is perpetrated: 1) to obtain housing; or 2) strictly for profit. Interestingly, they tell us that, according to the FBI, a high percentage of mortgage fraud involves collusion by industry insiders, including bank officers, appraisers, mortgage brokers, attorneys, accountants, notaries and other professionals. Best practices to reduce and guard against fraud are shared by a number of professional organizations, including The Counselors of Real Estate, American Bankers Association and the National Association of REALTORS®.

The collapse of the real estate bubble caused a downturn in the issuance of Commercial Mortgage-Backed Securities, or CMBS. A major restructuring of the CMBS industry has been ongoing. **Thomas A. Fink, CRE**, of Trepp, LLC, offers an overview and an outlook for the CMBS industry and market in his article, **"The Case for the Return of CMBS."** "As near term uncertainties have continued to keep current issuance muted," Fink says, "it

is prudent to examine the long-term health and prospects for CMBS.” In Fink’s view, “the U.S. CMBS market is likely to reset itself ...before resuming its growth with new issuance recovering to approximately \$100 billion per year.” Behind that view: 1) continued improved property performance; 2) scheduled debt maturity over the next five years; and 3) commercial real estate property sales activity that has been recovering.

There has been some discussion among governments, planners and real estate professionals about the market and economic benefits, or detriments, of hosting the Olympic Games. In 2010, the City of Vancouver, British Columbia, hosted the Winter Olympics. In a sweeping discussion of the plans, intentions, the expectations and the pitfalls of the development of the 2010 Olympic Village, CRE Bill McCarthy describes where things went wrong in his article “**The Failed Experiment of Vancouver’s 2010 Olympic Village**,” and what the costs and political repercussions have been for the City of Vancouver. He offers acute details and his conclusions and recommendations for those inclined to take on a similar endeavor.

In their article, “**Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters**,” CREs Richard J. Roddewig, Charles T. Brigden and Gary R. Papke provide us with a case study, discussing the role of counseling in the Levee Case Class Action in the wake of Hurricane Katrina. The “Levee Case” was the largest of many lawsuits against the U.S. Army Corps of Engineers and others, involving between 140,000 and 180,000 properties in New Orleans and Jefferson Parish. From evaluating the extent of damages, types of damage, and sources of damage to measuring the impact on property impairments, to determining the appropriateness of a ‘class action’ in the first place, the article covers a range of issues. Various approaches, which might be considered customary, are found to be lacking in “identifying and handling all of the independent variables affecting prices both before and after an event like Hurricane Katrina...” making the process and the task immense. A worthy read.

Finally, a resource review from **Peter Holland, CRE**. Holland reviews *A History of the U.S. Army’s Residential Communities Initiative, 1995-2010* by Matthew Godfrey and Paul Sadin with Dawn Vogel, Joshua Pollarine and Nicolai Kryloff (U.S. Government Printing Office). The book was prepared for the Assistant Secretary of the Army responsible for housing and describes the successful public-private partnership driven, in large part, by CRE Mahlon “Sandy” Apgar, IV. Apgar played an important role in carrying the Residential Communities Initiative (RCI) from concept to reality, with help from the Urban Land Institute and Jones Lang LaSalle. Holland tells us, “For those already engaged in public-private partnerships, this book will be of value. For those interested in knowing more and entering this field...the book will be more valuable still.” [A quick editor’s note: you can also read Apgar’s own account of the RCI in “Public-Private Partnerships: Lessons from Military Housing” in *Real Estate Issues*, Volume 36, Number 2, 2011].

I am humbled and honored to be a part of this organization that is comprised of so many brilliant professionals who are willing to jump in the hole for their colleagues and their industry. Even more so to have been Editor in Chief of this journal for the past four years—I extend my deep gratitude to the Leadership for letting me do it for so long. I also want to thank all members of the Editorial Board, past and present, for their tireless, unselfish efforts as well. Importantly, thanks to Carol Scherf for keeping everything (including me) moving in one, focused direction and for ensuring that this continues to be the fine journal it is.

Looking ahead, we pass the Editor’s pen over to **Mary Bujold, CRE**, whose very capable hands and discerning eye should elevate this publication to an even higher standard. I hope you will support her efforts with the creative, forward-thinking, exceptional work for which this journal and The Counselors are known around the globe. Mary, I hope I didn’t wreck it.

*So the writer who breeds more words than he needs, is making a chore for the reader who reads.* —DR. SUESS



PETER C. BURLEY, CRE  
EDITOR IN CHIEF



# REAL ESTATE ISSUES®

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## CONTRIBUTORS

**KATHERINE BARKER-CAGWIN** is an assistant professor of accounting, currently teaching accounting, auditing and fraud examination at the College of Business, Zayed University—Abu Dhabi campus, United Arab Emirates. She holds a bachelor's degree in accounting from the State University of New York Empire State, a master's degree in accounting from Rochester Institute of Technology and a doctorate in accounting from the University of Arkansas, Fayetteville, Arkansas.

**CHARLES T. BRIGDEN, CRE, ASA, FRICS**, is vice president of Clarion Associates, Inc., Chicago, and has nearly 20 years experience in real estate counseling and development economics, including major real estate valuation and consulting assignments in more than 25 states. Brigden directs Clarion Associates' valuation and analytical efforts involving large-scale environmental contamination assignments. He holds a bachelor's degree in architecture and a master's degree in real estate, both from the University of Wisconsin.

**CHRISTINE L. CARLYLE, AIA, AICP**, principal and director of planning, Solomon Cordwell Buenz (SCB), Chicago, has more than 25 years of experience in planning, urban design and architecture, and is recognized for her work creating sustainable and livable communities. Carlyle founded the SCB Planning Studio in 2002, and has directed a diverse portfolio of urban design and planning projects in the Midwest, nationally and internationally. She received her bachelor's degree in architecture from Carnegie Mellon University and a master's degree in architecture in Urban Design from Harvard University.

**THOMAS A. DORSEY, MAI, SRA**, is a LEED AP and is qualified as a real estate appraiser, broker and general contractor. He earned his bachelor's degree at Case Western Reserve University and a master's degree in business administration at Florida Atlantic University. Dorsey is a senior vice president in Wells Fargo's Corporate Properties Group and leads the team that supports its administrative buildings in the Carolinas.

**JAMES A. FELLOWS, PH.D.**, is professor of accounting at the University of South Florida/St. Petersburg, where he teaches courses in taxation. Fellows earned his doctorate in economics from Louisiana State University and a master's degree in taxation from Florida International University. He also holds a master's degree in economics from the University of Florida and a baccalaureate degree in liberal arts from the University of Miami. Fellows is a frequent contributor to academic and professional journals, and currently serves as a contributing author to *The Real Estate Law Journal*, where he publishes a quarterly article on tax issues affecting real estate transactions.

**THOMAS A. FINK, CRE**, is a senior vice president and managing director at Trepp, LLC, New York City, a provider of commercial mortgage-backed securities (CMBS) and commercial mortgage information, analytics and technology to the securities and investment management industries. At Trepp, Fink is responsible for business development, which includes identifying and building strategic relationships with third parties. Fink has more than 35 years experience in the financial markets, in diverse areas such as CMBS, leasing, economic development and tax-exempt securities. Prior to joining Trepp, he served as the CFO of the North American Development

Bank. He also was a senior banker at several securities firms, including Blyth Eastman Dillon, Bear Stearns and Chemical Securities.

Fink has served on The Mortgage Industry Standards Maintenance Organization Board of Directors since 2009. He also serves on various committees for the Commercial Real Estate Finance Council, including the Global Initiatives Committee and the High Yield Debt and Investment Forum.

Fink earned a bachelor's degree in Foreign Service from the Edmund A. Walsh School of Foreign Service at Georgetown University, and a juris doctor degree from Seton Hall University.

**PETER L. HOLLAND, CRE**, is a principal at the Hartford, Connecticut-based consulting firm of Bartram & Cochran, a business that undertakes advisory and brokerage assignments for clients worldwide. Holland has more 25 years of consulting with Fortune 100 companies, and has not-for-profit experience in real estate and shared services including site selection, procurement and sourcing, global outsourcing, business continuity and facilities.

**JUSTO MANRIQUE, PH.D.**, is associate professor of Economics and Chairman of the FACIS Department at the University of Houston - Downtown. Manrique earned his doctorate degree in Agricultural Economics from Iowa State University. He performs research in applied econometrics, applied microeconomics, and demand studies. Manrique has authored and co-authored several papers published in top-tier peer review journals such as *Applied Economics*, *Journal of Agricultural Economics*, *Applied Financial Economics*, and *Agribusiness: An International Journal*. He also has received several research awards.

**WILLIAM MCCARTHY, CRE, FRICS, CPM**, is a property developer and owner, and a real estate agent and consultant based in Burnaby, British Columbia. McCarthy is a past president of the Real Estate Institute of Canada, and has served as a director and officer of several other professional and community organizations. A Counselor of Real Estate since 1995, he has participated in three major assignments for the CRE Consulting Corps. McCarthy currently chairs the CRE Ethics Committee.

**GARY R. PAPKE, CRE**, is senior vice president of Clarion Associates, Inc., Chicago. Papke has more than 25 years experience as a real estate and planning counselor, following a ten-year career as a public sector planner. In recent years, he has focused much of his work on analysis of the impact of environmental contamination on real estate. He has published articles in *The Appraisal Journal* and *Planning* magazine, and has been an adjunct lecturer at the University of Illinois at Chicago and at DePaul University. Papke holds a bachelor's degree in history from Gustavus Adolphus University and a master's degree in urban planning from the University of Illinois.

**DUSTIN C. READ, PH.D., J.D.**, serves as the director of the Center for Real Estate at the University of North Carolina at Charlotte. He earned his doctorate degree in public policy at UNC Charlotte and his juris doctor at the University of Missouri. Read's research interests include land use policy, public-private partnerships, and sustainable development practices.

**RICHARD J. RODDEWIG, CRE**, is president of Clarion Associates, Inc., Chicago. He has more than 30 years of experience as a real estate counselor and works on counseling assignments across the United States. Much of his work is focused on expert testimony in large real estate related litigation assignments. He has authored, co-authored, edited or contributed to 11 books and more than 50 articles in professional journals. A past chair of the Midwest Chapter of The Counselors of Real Estate®, Roddewig has an undergraduate degree from the University of Notre Dame and both a juris doctor and a master of arts degree from the University of Chicago.

**LEE SARVER, PH.D.**, 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.

**CHIHIRO SHIMIZU, PH.D., CRE, FRICS**, based in Tokyo and Vancouver, is a professor of Reitaku University in Japan and a visiting professor of the University of British Columbia in Canada and the University of Hong Kong in China. He is also chairman of the advisory board of Property Price Index in the Japanese Government and technical advisor of IPD-J (Investment Property Data Bank). Shimizu's research interests are applied econometrics, index theory and real estate economics.

**CHARLES SMITH, PH.D.**, is a full professor of Finance at the University of Houston-Downtown. He received his doctorate degree in Real Estate from Texas A&M University. Smith's research interest is real estate valuation and appraisal. He has also provided real estate appraisal and consultancy services over 30-plus years to the business community.

**NICOLE FORBES STOWELL, J.D., M.B.A.**, is an instructor of business law at the College of Business at the University of South Florida/St. Petersburg. She holds a bachelor's degree in business administration from the University of Florida, a master's degree in business administration from Stetson University, and a juris doctor degree from Stetson University College of Law. Stowell's practice area focuses on real estate, estate planning and business associations. She is a member of the Florida Bar, the Real Property, Probate and Trust Section of the Florida Bar and the Academy of Legal Studies in Business.

**RAHUL VERMA, PH.D.**, is associate professor of Finance at the University of Houston-Downtown. Verma's research is at the intersection of investments, international finance and behavioral finance disciplines. The research focuses on understanding the relevant variables that affect the international financial markets. Verma develops and tests empirical models that combine global risk factors and investors' irrationality to scientifically explain financial market movements.

**PATRICIA S. WALL** is an attorney and a CPA. She received a juris doctor degree in 1979 from the University of Tennessee College of Law, a master's degree in business administration from the University of Tennessee (Chattanooga) in 1987, and a doctor of education degree from Tennessee State University in 2004. She 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.

# Federal Forfeiture of Real Estate in Practice: A New Form of Eminent Domain?

BY PATRICIA S. WALL, J.D.; CPA, M.B.A., Ed.D.; AND LEE SARVER, PH.D.

## INTRODUCTION

IN 2009, THE UNITED STATES DEPARTMENT OF JUSTICE FILED a complaint in federal court in Massachusetts asserting that Motel Caswell should be forfeited under federal law on the ground that it had been used in connection with recent drug activities. The property has been in the family of the owner, Russell Caswell, since the 1950s.<sup>1</sup> He has not been convicted of any crime, and the Department of Justice lists only eight convictions of hotel patrons for drug-related crimes between 2001 and 2008.<sup>2</sup>

The local Tewksbury Police Department provided the Department of Justice with evidence for the forfeiture filing. If the seizure is successful, the local police department could receive as much as 80 percent of the proceeds from the sale of the motel under a federal forfeiture program called “equitable sharing.”<sup>3</sup> Last year, \$500 million was collected under this program, representing a 75 percent increase over the past ten years.<sup>4</sup>

Mr. Caswell is fighting the forfeiture, and his attorneys argue that the federal government’s “equitable sharing program” exceeds the powers given to the federal government by the Tenth Amendment (“The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people”).

Since there is no mortgage or any money owed on his property, Mr. Caswell believes the seizure of his motel is more about money than about drugs.<sup>5</sup>

If innocent people can lose their property in a procedure such as this, is forfeiture law overly broad? Is equitable

sharing being abused by government bureaucrats similarly to eminent domain laws? Will Mr. Caswell’s court challenge lead to a revision of forfeiture statutes similar to the revision of eminent domain statutes after *Kelo v. City of New London*?<sup>6</sup> This article considers the purpose and constitutionality of forfeiture laws and their impact on property owners. Further, it presents an overview of the law in the majority of jurisdictions, illustrating with the law of Tennessee (the authors’ home state).

## About the Authors



**Patricia S. Wall** is an attorney and a CPA. She received her juris doctor degree in 1979 from the University of Tennessee College of Law, her master’s degree in business administration from the University of Tennessee (Chattanooga) in 1987, and her doctor of education degree from Tennessee State University in 2004. She is presently an associate professor of business law at Middle Tennessee State University, and has also 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 (Securities Division), Employment Security (in several capacities, including general counsel), Labor (as general counsel), and Safety.



**Lee Sarver, Ph.D.**, 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.

## Federal Forfeiture of Real Estate in Practice: A New Form of Eminent Domain?

### BACKGROUND

In 2000, Congress passed the Civil Asset Forfeiture Reform Act of 2000 (CAFRA), which reformed the federal forfeiture system. It enacted two new statutes, 18 U.S.C. 983 (which establishes the procedures and deadlines) and 985 (which sets forth the procedures for judicial forfeiture of real property).<sup>7</sup>

State asset forfeiture law is a creature of statutory construction, with most states modeling their statutes after federal civil forfeiture laws such as 21 U.S.C. 881, which says in part which types of property may be subject to government forfeiture. In addition to facing criminal prosecution, drug dealers and drunken drivers may have their property taken by the government. This is intended to provide a further deterrent to crime and also helps fund law enforcement. Seizing agencies keep the majority of revenue generated.<sup>8</sup>

Some argue that this law creates a conflict of interest for law enforcement. For this very reason, Tennessee has a statute creating a cause of action against an officer seizing in bad faith. In Tennessee (T.C.A. 40-33-215) “bad faith” exists when an officer acts intentionally, dishonestly or willfully, and/or such officer’s actions have no reasonable basis in law or fact in regard to the seizure or failure to return seized property. A party prevailing in such an action is entitled to recover reasonable attorney fees and court costs incurred in bringing such an action. Additionally, monetary damages are available but are limited to the rental value<sup>9</sup> of property similar to that seized for the period of time the property was seized, but cannot exceed the value of the property.

Courts generally have attached a classification of “civil *in rem*”<sup>10</sup> to forfeiture cases and determined that a civil proceeding does not depend upon a criminal prosecution.<sup>11</sup> Thus, it is often practical for seizing agencies to bring a civil forfeiture case even when a criminal prosecution is not pursued, because the burden of proof in a civil case (“a preponderance of the evidence”) is less than that in a criminal case (“beyond a reasonable doubt”). In *U.S. v. Dusenbury*,<sup>12</sup> the Northern District Court of Ohio found that wholly circumstantial evidence may serve as proof that property is subject to forfeiture. Further, in *U.S. v. \$67,220.00 in United States Currency*,<sup>13</sup> the 6th U.S. Circuit Court of Appeals found:

The aggregation of facts, each one insufficient standing alone, may suffice to meet the government’s burden. To determine whether the information is

sufficient, a court must “weigh not the individual layers but the ‘laminated’ total.” *United States v. Nigro*, 727 F.2d 100, 104 (6th Cir.1984) (citation omitted).

While not dependent on a criminal prosecution, civil forfeiture proceedings still have a resemblance to criminal proceedings. Many questions have been raised concerning civil liberties and abuses of civil forfeiture statutes. Forfeiture statutes have been challenged for violating due process, equal protection, double jeopardy and the excessive fines clause under the Eighth Amendment. Legislators at the state and federal levels must draft forfeiture legislation to withstand these constitutional challenges, still focusing on the primary goal to deter criminals while providing funding for law enforcement.

Despite a nationwide trend to mediate and settle cases whenever possible, settlement is particularly desirable for both parties in the majority of asset forfeiture cases. Many state statutes and ethical considerations keep the officer(s) directly involved in a seizure from negotiating a settlement. Thus, most seizing agencies have designated a settlement officer.

### TENTH AMENDMENT CHALLENGES

The United States has a federal form of government, which means the federal and state governments *share* sovereign power. The Constitution specifically lists powers of the federal government and gives it implied authority to implement these enumerated powers. The Tenth Amendment states:

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

The power of state governments to regulate their states in the best interests of the health, safety and welfare of their citizens is known as the state police powers (state regulatory powers). The “Commerce Clause” of the Constitution (Article I, Section 8) allows Congress “to regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.” Thus, when a state law or regulation interferes with interstate commerce, the federal government often uses this clause to strike it down. Areas of concurrent regulation by the federal government and the states include taxation, spending and police powers. The latter includes regulation of public health, safety and welfare.

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In *Watters v. Wachovia*,<sup>14</sup> the 6th Circuit found the Tenth Amendment inapplicable to a state challenge of federal preemption concerning mortgage activities, because the National Bank Act was a valid use of power under the Commerce Clause. The court stressed that the Tenth Amendment only protects powers not specifically given to the federal government. This case was closely watched because of its implications for other areas (e.g., food and drug regulation and consumer law).<sup>15</sup> The U.S. Supreme Court granted *certiorari* because the national bank operated in many states, including Michigan and Connecticut, where there was litigation. The U.S. Supreme Court upheld the decision of the 6th Circuit, finding that Wachovia's mortgage business had to comply only with federal law.

Could the federal government make a similar argument asserting that CAFRA is a valid use of federal power under the Commerce Clause? In a recent case, the U.S. Supreme Court found unanimously that public citizens may invoke the protections of the Tenth Amendment against an assertion of the federal government.<sup>16</sup> Prior to this, only states could do so. In Mr. Caswell's case, he had always cooperated with the state and local law enforcement.

### CONFLICT OF INTEREST

Forfeiture is not favored by law, and statutes authorizing it are strictly construed, justifying forfeiture only when the facts fall within both the letter and the spirit of the law.<sup>17</sup> The majority of state statutes, such as Tennessee's, offer an exemption for innocent owners and lien holders. When a Tennessee officer swears out a forfeiture warrant, the statute specifically requires the judge to question the officer concerning: (1) the probable cause that the owner, co-owner or secured party of the property knew that it was of a nature making its possession illegal or was being used in a manner making it subject to forfeiture; (2) the probable cause that the owner, co-owner or secured parties who are not in possession of the property at the time of seizure were co-conspirators to the activity, making it subject to forfeiture; and (3) any other question deemed necessary to determine the legal and factual basis for forfeiture of such owner, co-owner or secured party's interest.<sup>18</sup>

Many states have amended their forfeiture statutes to increase the burden of proof required for forfeiture and/or prohibiting proceeds from going directly to fund law enforcement agencies.<sup>19</sup> Thus, the Department of

Justice is entering into "equitable sharing" agreements with local law enforcement and bypassing the state agencies.<sup>20</sup> In Tennessee and most other states (e.g., Massachusetts), there must be a criminal conviction before land or real estate can be seized. In the Caswell case, the federal agents chose to cooperate with the local Tewksbury police department and bypass the state forfeiture agents in gathering evidence for the federal forfeiture. Under the equitable sharing program, the federal agency could share the proceeds with the local government instead of the state agents. It appears that the federal agency chose to do so because Massachusetts state law does not allow such forfeitures without a criminal conviction. Mr. Caswell's attorneys allege that this use of the equitable sharing agreement of the federal government is an unlawful overruling of state power (i.e., the state forfeiture program).

### OTHER CONSTITUTIONAL CHALLENGES

The Fourth Amendment provides protection against unreasonable searches and seizures:

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

Some advocates of civil liberties have characterized forfeiture programs as "policing for profit" and in violation of the Fourth Amendment.<sup>21</sup>

In some jurisdictions—for example in Tennessee—the forfeiture statutes do not require the government to trace the seized property to a specific illegal transaction.<sup>22</sup> Still, the government must show some connection between the seized property and criminal activity.<sup>23</sup> A Louisiana appellate court held that funds intended to be used to further illicit drug transactions are subject to forfeiture, even if substantial amounts of drugs are not present.<sup>24</sup> The eastern district court of New York held that the presence of drugs, scales, drug manufacturing materials and residue, together with the seized property, is probative of its connection to illicit drug trade.<sup>25</sup> Further, in *U.S. v. \$67,220.00 in United States Currency*,<sup>26</sup> the 6th Circuit found that even carrying great amounts of cash shows some relationship to illegal drugs for forfeiture purposes.



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Mr. Caswell's attorneys assert that the federal government's equitable sharing agreement violates the Eighth Amendment, which prohibits excessive bail and fines, and cruel and unusual punishment. In *United States v. Bajakajian* (118 S. Ct. 2028 (1998)), the U.S. Supreme Court found that the amount of the forfeiture must bear some relationship to the gravity of the offense it is designed to punish. To forfeit a million-dollar motel without a criminal conviction of the owner seems excessive in Mr. Caswell's case.

The Tennessee Supreme Court held in *Stuart v. Dept. of Safety* that civil *in rem* forfeiture proceedings were subject to excessive fines analysis and adopted a proportionality test. The *Stuart* court found that the following factors should be considered:

- the harshness of the penalty compared to the gravity of the offense;
- the harshness of the penalty compared to the culpability of the claimant; and
- the relationship between the property and the offense, including whether use of the property was (a) important to the crime, (b) deliberate and planned or merely incidental and fortuitous, and (c) extensive in terms of time and spatial use.<sup>27 28</sup>

The Caswell forfeiture does not appear to meet the proportionality test under Tennessee and other states' laws.

### VALUING RISK AND TIME

Settlement is always an alternative to trial. Two inputs to this decision are (obviously) the probability of winning at trial and (less obviously) the time value of money. The greater the likelihood of winning, the less desirable it is to settle. Conversely, the lower the probability of winning, the more benefit can be salvaged by settling. Hence, the choice is, in actuality, not one between a settlement offer and a full-value forfeit awarded by the court, but between the settlement offer and the *expected* award, which must be *less* than the full value whenever victory is less than certain. The expected value for any period is the average of all possible outcomes for that period, each weighted by its probability:

$$\hat{D} = \sum_{i=1}^n P_i D_i = P_1 D_1 + P_2 D_2 + \cdots + P_n D_n$$

where  $D_i$  is a possible dollar award,  $P_i$  is its probability (from zero to one, inclusive) and  $i$  indexes outcomes. In legal matters these probabilities are normally subjective (e.g., based on previous experience with a particular judge or hearing officer). A risk-averse individual (using his own money) will accept less than the expected settlement—the certainty equivalent—in order to avoid the uncertainty. However, an agent with nothing to lose personally is more likely to resist settlement and “go for broke.” Settlement negotiations that result in receipts greater than or equal to the expected award should be considered successful. The process may be illustrated simply. Suppose that \$1,000,000 is at stake and the odds are thought to be even. Thus, winning means receiving a forfeiture award of \$1,000,000, while losing means receiving nothing. The expected award is \$500,000, as calculated in the following table:

*Figure 1*

OUTCOME	AWARD	PROBABILITY	PRODUCT
Win	1,000,000	50%	\$500,000
Lose	0	50%	0
Sum			\$500,000

*Source: Lee Sarver*

The risk-averse individual described above would refuse to invest as much as \$500,000 in this suit, since that would reduce his expected net payoff to zero, which he can achieve simply by doing nothing and without having to endure any uncertainty. For a risk-avertter, breaking even is not good enough.

The second factor, the time value of money, is important because it is always better to receive money sooner rather than later (and, naturally, to pay later rather than sooner). For example, it is less desirable to receive \$1,000 a year from now than to receive the same amount now. Any future cash flow is always worth less than the same cash flow received earlier, for the simple reason that if it were available earlier, it could be invested to earn a return and generate income. The rate of return foregone by waiting for later receipt is an “opportunity cost” and is used as the (penalty) rate charged against future cash flows, in order to discount them back to a present value:

$$PV = \sum_{t=1}^n \frac{\hat{D}_t}{(1+r)^t} = \frac{\hat{D}_1}{1+r} + \frac{\hat{D}_2}{(1+r)^2} + \cdots + \frac{\hat{D}_n}{(1+r)^n}$$

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where  $D_t$  is the cash flow expected to be received in period  $t$  (discussed above) and  $r$  is the periodic discount rate (here assumed constant). The riskier the cash flows (the more uncertain their eventual actual values), the higher should be the discount rate. Settlement negotiations that result in receipts greater than or equal to the present value should be considered successful. Although the details of time value are frequently overlooked in law (e.g., structured settlements, simple interest), it becomes more important the larger are the dollar amounts involved, the more time is likely to elapse before any award, the higher the prevailing interest rate (discount rate) and the more frequently interest is compounded.

An example will illustrate. Recall the \$500,000 expected award derived above. Suppose that for various reasons, a hearing cannot take place for a year. Suppose further that the discount rate is 10 percent, compounded annually. Under these circumstances, the litigants should be indifferent about receiving the \$500,000 in one year or \$454,545.45 now:

$$PV \text{ (of \$500,000 to be received in 1 year at 10 percent)} = \frac{\$500,000}{1.10} = \$454,545.45$$

If it is necessary to wait two years for the \$500,000, it is worth only \$413,223.14 today:

$$PV \text{ (of \$500,000 to be received in 2 years at 10 percent)} = \frac{\$500,000}{(1.10)^2} = \$413,223.14$$

Although seized cash is used in these examples, these techniques apply equally well to any property: jewelry, boats, automobiles, aircraft or real estate. For automobiles, resale values can be derived from the NADA *Official Used Car Guide*, with allowance for depreciation. Other property might require an appraisal.

To summarize, the decision to settle and the size of the settlement should be informed by the chance of success at trial and the likely delay before trial. Settlement is more desirable when trial victory is less likely. Even given the likelihood of winning at trial, an expected long delay and high discount rate may make early settlement more desirable than going to trial. Finally, any settlement negotiation resulting in receipts at least as large as the discounted present value of the property at stake should be considered successful.

### KNOW WHEN TO FOLD 'EM

Normally, the central issue in finance is valuation: How much is something worth? However, in the case of forfeiture, there is no voluntary exchange of property for consideration. Instead, the value of the property becomes a parameter and the central issue is the determination, incumbent on both sides, of how much time and effort to invest in pursuing or resisting the forfeiture. Naturally, the value parameter influences the decisions: Other things being equal, the greater the value, the more time and effort will be expended by both sides—in the limit, taking the matter all the way to the U.S. Supreme Court. Each side faces considerations in addition to the object's value—notably, costs—which will also influence their decisions. These are all amenable to cost-benefit analysis.

The prosecution's decision is simple. On the initial assumption that the state's marginal cost is zero—because the staff is already on the payroll and the case at hand will not divert them from any other remunerative projects (i.e., its opportunity cost is zero)—the prosecution will never stop short of final victory or defeat, as long as the object being forfeited has any value. Any positive marginal benefit—however small or improbable—will always exceed a zero marginal cost. However, in the more likely case that the marginal cost of prosecution is positive, a more familiar decision emerges: stop (settle) when (if) the marginal cost equals the marginal revenue, which may occur before a final judicial decision is reached.

This is illustrated in Figure 2, below. A zero marginal cost is indicated by a heavy blue line running along the horizontal axis. If the marginal benefit of prosecution is positive and constant—because the value of the asset being forfeited is unaffected by the proceedings or passage of time—there is no intersection and the state will continue until a final decision is reached. If the marginal benefit is positive but diminishing (represented by the heavy black line descending from the left)—perhaps due to neglect of the asset under forfeiture—the state will pursue its goal until a point such as *A* is reached, unless the proceedings end earlier, in a final court decision or refusal of appeal or larger settlement offered by the defense. If the marginal cost is positive (rising heavy blue line), the state will end its effort at a point such as *B* or *C*, which may occur before a court renders a final verdict.

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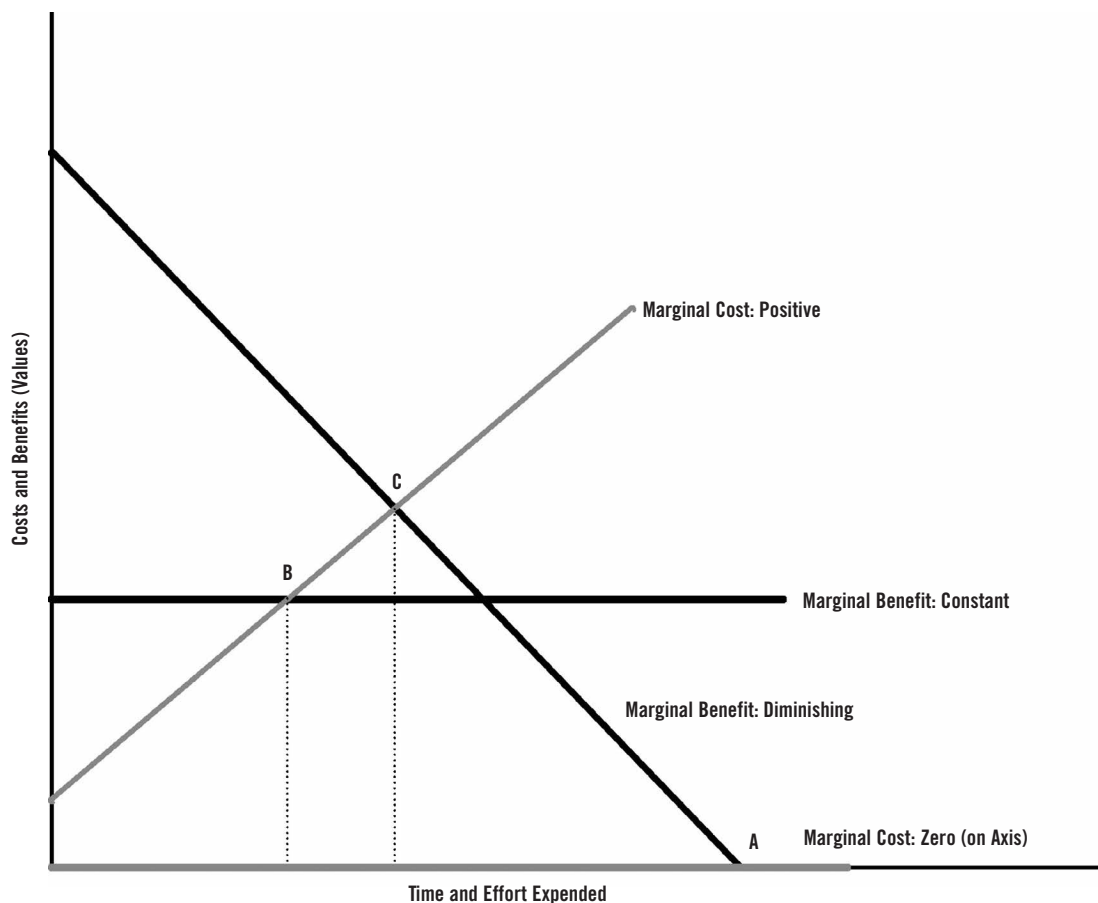
The defendants' decision may be explored in a parallel fashion. If they are more interested in principle than in money, or have unlimited resources—perhaps the support of a foundation or interest group—they will behave as if their marginal cost were zero, and pursue the matter until it ends in a final court decision or a point like *A*. Otherwise, with limited resources, an interior solution, such as points *B* or *C*, is likely.

Combining these considerations, one may conclude—rather obviously—that a forfeiture case is most likely to make a complete trip through the court system only if both parties have sufficient resources. If the parties' resources are mismatched, the one with the deeper pockets will be able to persevere longest and is most likely to prevail. However, as noted previously, the majority of asset forfeiture cases are settled at some point during the proceedings.

### CONCLUSIONS

What does all this mean for owners of real estate? Naturally, they should be as aware as possible of what is occurring on their property. However, this is not always possible in rental situations, where it is necessary to respect tenants' privacy. If one does suspect illegal drug activity, one should immediately contact and cooperate with local law enforcement. This is necessary in order to maintain the innocent owner defense (as Mr. Caswell alleges he did). If a good innocent owner defense is impossible, one should consider settling the case. Property owners in real estate forfeiture cases are arguably worse off than property owners in eminent domain cases, in which the owners are paid at least a certain amount for their property. As for the objective, legal question raised initially: It cannot be answered until the courts have finished their work. ■

Figure 2  
Continue to Litigate—or Settle?



Source: Lee Sarver

## Federal Forfeiture of Real Estate in Practice: A New Form of Eminent Domain?

## ENDNOTES

1. See "Motel is Latest Stopover in Federal Forfeiture Battle," *The Wall Street Journal*, pp. 1, 14, Oct. 18, 2011.
2. *Ibid.*
3. *Ibid.*
4. *Ibid.*
5. *Ibid.*
6. 545 U.S. 469 (2005).
7. Some of the key provisions of CAFRA are as follows: (1) The seizing agency has 60 days from the date of seizure to send notice of the administrative forfeiture to all persons with an interest in the property. (2) A "supervisory official in the headquarters office of the seizing agency" can grant a one-time 30-day extension for sending notice. Any further extensions must be granted by the court, and for no more than 60 days. (3) Claimants must file a claim within 30 days and identify the specific property and their interest in the property. (4) The U.S. Attorney has 90 days from the date the claim is filed to file a civil complaint and/or to include the property in a criminal indictment. (5) Admiralty Rules will still govern the filing of civil forfeitures and lack of probable cause at the time of filing is no longer a valid basis for a motion to dismiss. (6) In criminal forfeitures, the government must re-seize the property under Section 853(f), although it is already in government custody. (7) Under Section 985 (post and walk policy), all civil forfeitures of real property must be judicial. (8) If the government seeks possession of the property before trial, then a hearing is required. If this hearing is *ex-parte* because of exigent circumstances, there must be a prompt post-seizure hearing where the claimants can be heard. (See Patricia S. Wall & Lee Sarver, "Asset Forfeiture in Practice: Legislative Reform and Financial Considerations," *Tennessee Bar Journal*, April 2001, for a more complete discussion).
8. *Ibid.*
9. "... consideration paid under the lease for the right to occupy, or the royalties or return received by a lessor (landlord) under a license to real property." *Ballantine's Law Dictionary*, p. 450.
10. Jurisdiction over property as opposed to a person.
11. *Stuart v. State*, 963 S.W. 2d 28 (Tenn. Supreme Ct., 1998.) See also *Calero-Toledo*, 416 U.S. at 683-86.
12. 80 F. Supp. 2d 744 (N.D. Ohio 1988).
13. 957 F.2d 280 (6th Cir. 1992).
14. 127 S. Ct. 1559, 2007.
15. See *Wyeth v. Levine*, 555 U.S. 555, March 2009. The Food and Drug Administration's approval of products and warnings does not preempt product liability suits in state court.
16. *Bond v. U.S.*, 564 U.S., 2011.
17. *Williams v. City of Knoxville*, 220 Tenn. 257, 416 S.W. 2d 758, 1967; *Biggs v. State*, 207 Tenn. 603, 341 S.W. 2d 737, 1960; *Blackman v. Norris*, 775 S.W. 2d 367 (Tenn. App. 1989).
18. Tennessee Code Annotated, 40-33-204 (b)(2).
19. See "Fighting Civil Forfeiture Abuse," <http://www.ij.org/about/4059>.
20. *Ibid.*
21. *Op. cit.* at 16.
22. *Lettner v. Plummer*, 559 S.W. 2d 785, 1977.
23. *Goldsmith v. Dept. of Safety*, 622 S.W. 2d 438, 1981.
24. *Louisiana v. Douglas*, 541 So.2d 285 (La. App. 1989).
25. *U.S. v. U.S. Currency Amounting to Sum of \$20,294.00 More or Less*, 495 F. Supp. (E.D.N.Y. 1980).
26. *Op. cit.* at 10.
27. *Stuart v. State*, 963 S.W. 2d 28 (Tenn. Supreme Ct., 1998). See also *Calero-Toledo*, 416 U.S. at 683-86.
28. *Op. cit.* at 7.

# Selection of the Winning Office Investment Market: Case of Tokyo

BY CHIHIRO SHIMIZU, PH.D., CRE, FRICS

## INTRODUCTION: IS IT POSSIBLE TO SELL AND SURVIVE?

AMONG THE MAJOR DEVELOPED COUNTRIES, JAPAN'S SOCIETY is aging at the fastest pace. The reasons for this are a rapid decline in the birthrate and a population decrease. One of the real estate markets most affected in the midst of such dramatic change in the population composition is the office market.

Based on this situation, questions such as, "Would it be possible to collect on an investment in the future (can an asset be sold)?" and "Who will take the loss?" are being frequently raised in Tokyo.

This issue is typical of liquidity risk, which is representative of risks associated with real estate investment.

In general, liquidity risk tends to be measured by the time it takes to sell a property once the decision to sell is made (market stagnation period). If the market stagnation period is long, the price of the property may be greatly reduced, or opportunity costs may arise because of a delay in obtaining the proceeds from the sale of the real estate. As such, the longer the market stagnation period, the greater such risk becomes.

What factors affect the market stagnation period? The first factor is the initial sale asking price. The higher the initial asking price in comparison to the market price, the lower the probability of a sale. Moreover, it is known that real estate owners procrastinate in lowering the initial asking price even if they have been unable to sell the property over a length of time at a given price. That is, it takes time to recognize that a property cannot be sold at the asking price.<sup>1</sup>

In the case of real estate for investment, most investments are being made through debt financing. Thus, the selling price can greatly change depending on the particular seller's circumstances, such as how much loan is remaining.<sup>2</sup> The selling price cannot be easily lowered when the loan to value ratio (LTV) is high.<sup>3</sup>

A second factor that affects the market stagnation period is the size of the real estate (i.e., the size of the investment value) and the locality.<sup>4</sup> In addition, there is the possibility that, no matter how much the price is lowered, no buyers would appear. Following the above, it can be agreed that

## About the Author



Chihiro Shimizu, Ph.D., CRE, FRICS, based in Tokyo and Vancouver, is a professor of Reitaku University in Japan and a visiting professor of the University of British Columbia in Canada and the University of Hong Kong in China. He is also chairman of the advisory board of Property Price Index in the Japanese government and technical advisor of IPD-J (Investment Property Databank). Shimizu's research interests are applied econometrics, index theory and real estate economics.

Shimizu has made frequent presentations about Property Price Indexes at the United Nations, BIS, European Central Bank and other International Institutions. He previously has been published in the Journal of Real Estate Finance and Economics, the Journal of Property Investment and Finance, the International Journal of Modern Physics, the Journal of Japanese and International Economy, the International Journal of Housing Markets and Analysis, and the Journal of Statistics and Economics. He received his doctorate degree in environment science from the University of Tokyo, and has received several academic awards from Japan Real Estate Association, Association of Property Assessment Policy in Japan and Japan Association for Planning Administration.



## Selection of the Winning Office Investment Market: Case of Tokyo

factors that greatly affect the market stagnation period are the potential selling price and the individual attributes of the real estate itself.

Let us first think about the selling price. How is the selling price of office spaces ( $P_t$ ) (the investment value) determined?

As an example, assume Investor A was thinking of investing for a period of 10 years. The investment value of the office building chosen by A would be determined by the cash flow for the 10-year scheduled investment period and the expected selling price in 10 years' time ( $P_{t+10}$ ). B, the new buyer (investor) appears in 10 years' time, which is when A expects to sell the real estate. B is also thinking of an investment period of 10 years. In this case, B's expected purchase price to be assumed in 10 years' time (counting from the time of B's purchase) ( $P_{t+10}$ ) would be determined by the cash flow for the next 10 years (year 11 to year 20), and the expected selling price in an additional 10 years' time (20 years after A's purchase of the property) ( $P_{t+20}$ ).

Thinking about it this way, the expected selling price that A must anticipate ( $P_{t+10}$ ) would be determined by the cash flow for 10 years from the time when A expects to sell the property (year 11 to year 20) and the expected selling price in an additional 10 years' time (20 years ahead from the time of A's purchase of the property) ( $P_{t+20}$ ).

If the office building retains its use value in 10 years' time but many investors predict that the building would not generate profits if used for offices for an additional 10 years (20 years later), the expected selling price in 10 years' time ( $P_{t+10}$ ) would greatly decline.

The above is also true in the case where investments are being made repeatedly over time periods of three years. The expected selling price in three years' time ( $P_{t+3}$ ) would be dependent on the expected selling price in an additional three years' time ( $P_{t+6}$ ). ( $P_{t+n}$ ) simply repeats itself.<sup>5</sup>

As per the above, if the market could make absolute predictions about the future, and the price is determined based on such predictions, it would be impossible for liquidity risk to rise from the extension of the market stagnation period because the initial price was set too high. Neither would it be possible for the real estate to become valueless because it was impossible to sell.

However, information about the future is not absolute.

Particularly with regard to the office market; the longer the duration, the more difficult it becomes to make predictions, and variations widen. Under such circumstances, the possibility remains that an office building, in which an investment was made because of the determination that it has current value, may become valueless in the future as an office building. As such, it can be said that the possibility of someone getting the short end of the stick in the future is high.

Based on this situation, when investing in an office building, a survivable office investment market that has fundamentally potentially high earning power must be selected by taking a long-term view to avoid getting the short end of the stick.

The selection of a real estate investment is made based largely on sorting out the property itself and the area in which it is built. Structures like buildings can be managed post-investment through maintenance, renovation or rebuilding. The area, however, cannot be improved with the above-mentioned efforts alone. Particularly when taking a long-term view, it can be said that the selection of the area would be the most essential element of decision-making.

This article will attempt to extract areas that have strong fundamentals as office investment markets and will have a high probability of being the preferred investment areas going forward.

### CHANGES IN REAL ESTATE INVESTMENT MARKETS IN TOKYO'S 23 WARDS

#### Macroscopic Changes of Real Estate Investment Returns

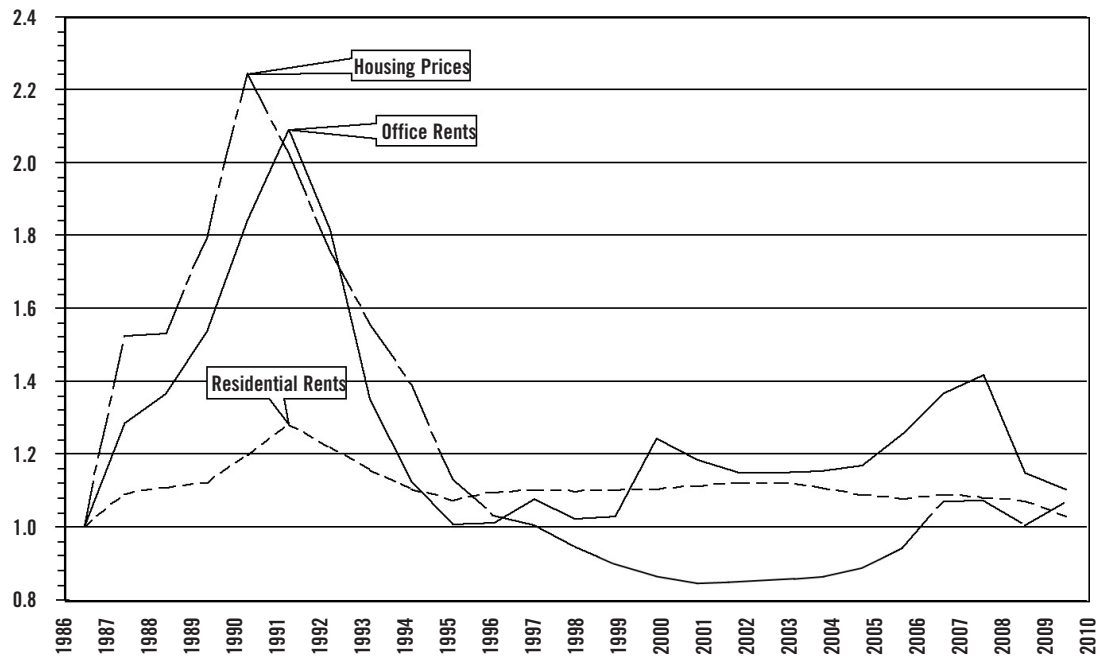
The macro dynamic trend of the real estate market in Tokyo, as shown in Figure 1, illustrates the changes in office rents, residential rents and housing prices from 1986–2010. Both office rents and housing prices more than doubled between 1986 and 1990–91, when the economic bubble was at its peak. Thereafter, housing prices fell through 1997 to a level lower than that in 1986, taking 20 years, until 2006, to recover. This became the period that would be called the “lost decade.”

Office rents were on a recovery trend from the late 1990s to the early 2000s. However, a real recovery was seen from 2005–2007. This period has been called the “mini bubble.” It was a period when Japan's real estate market was being revitalized through the effects of the European and U.S. investment banks' huge appetite for investment.

## Selection of the Winning Office Investment Market: Case of Tokyo

Figure 1

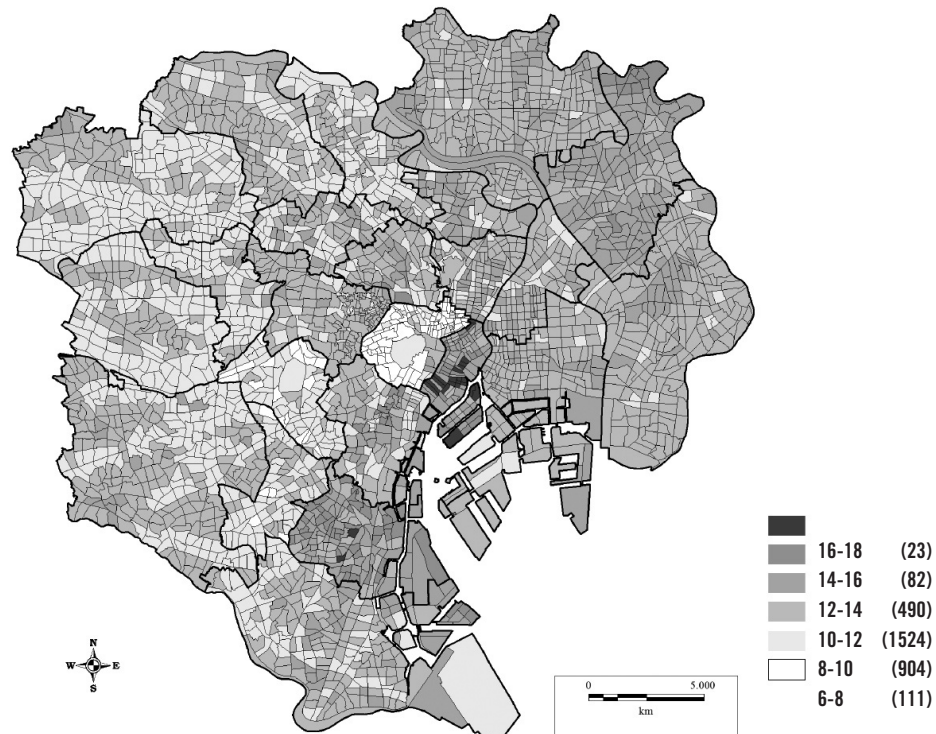
## Underlying Dynamics of Investment Returns



Source: Shimizu, 2012

Figure 2

## Office Investments: Average Overall Rates of Return



Source: Shimizu, 2012

## Selection of the Winning Office Investment Market: Case of Tokyo

Residential rents rose by 25 percent during the bubble, and gradually adjusted thereafter until 1995 when they leveled off.

There are signs that the market is rapidly deteriorating given the worldwide recession following the financial crisis that occurred following the collapse of Lehman Brothers in 2008. From 2005 onward, during the period called the mini bubble, it can be assumed that rent adjustments in the market progressed because the market was being supplied with large numbers of rental homes for investment, which caused vacancy rates to rapidly increase.

### AREA DISTRIBUTION OF REAL ESTATE INVESTMENT RETURNS

#### Total Rates of Return

The changes in investment dynamics within Tokyo's real estate market, as shown above, represent macroscopic trends of its 23 wards as a whole. However, where it is predicted that the market will shrink going forward, it is difficult to foresee a situation in which the prices of all of the real estate in all of the areas will rise, and then fall all at once, as happened during the bubble period.

As such, the author decided to observe changes in returns in detailed area units of the 3,134 areas that are surveyed under the national census for Tokyo's 23 wards.<sup>6</sup>

Regarding real estate investment returns, the total rates of return were calculated taking into account the prices and rents (NCRIEF Index in the U.S. and IPD Index in the U.K., Japan and others). The overall rate of return for one year can be calculated as follows:

$$\varphi_{jt} = \frac{R_{jt} + (P_{jt+1} - P_{jt})}{P_{jt}}$$

It is calculated by adding together the income return, which is calculated using the rental income generated when operating for one year, divided by the initial investment amount ( $\rho_{jt} = R_{jt}/P_{jt}$ ) and the capital return, which would be considered the price volatility rate for such year ( $\sigma_{jt} = (P_{jt+1} - P_{jt})/P_{jt}$ ).

Here, the focus is placed on the area distribution. Figure 2 shows the distribution of the average returns of the total rates of return for office investments in each of the 3,134 areas. Areas in Tokyo where economic activities are advancing the most are Chiyoda Ward, with Marunouchi

and Otemachi being the central areas; Minato Ward, in which Roppongi and Akasaka are located; and Chuo Ward, home to Ginza. Within these areas, positive income returns cannot be expected because the price levels are high. Moreover, when looking at the total rates of return in these areas, the figure does not show very high rates of return. This was due, in part, to the fact that there were large price fluctuations, which will be discussed later. If anything, the figure shows that rates of return in the suburban areas were higher.

Figure 3 looks at the average of the total rates of return for the residential markets. With regard to residential investments, following a continuous decline in residential prices from the 1990s, prices fell consecutively for about 15 years from 1991 to the mid-2000s. Because capital returns were negative, as compared to office investments, the average total rate of return for all areas has become lower. The price decline was particularly high in areas where high-end residential districts are situated, including Chiyoda Ward, Minato Ward and Shibuya Ward. Because of this, investment rates of return for residential investments in most of these areas have been negative. In contrast, rates of return have increased for those areas that were only slightly affected by the economic bubble and have relatively low price levels. However, in the central Tokyo area, there were positive returns in one part of Chuo Ward.

#### Risk-adjusted Returns

When making a decision on a real estate investment, a determination must be made with regard to both the simple average return ( $\varphi_{jt}$ ) in Equation 1 and the amount of risk ( $\sigma_j$ ). Comparisons have been made on risk-adjusted returns ( $\varphi_{jt}/\sigma_j$ ) by area ( $j$ ) (Figures 4 and 5) and looking at the risk-adjusted returns for the past 25 years. First, when office markets are compared to residential markets, the profitability on office investments in all of Tokyo is approximately twice as high as that on residential investments, even though volatility in office markets was, on average, twice as high as that in residential markets.

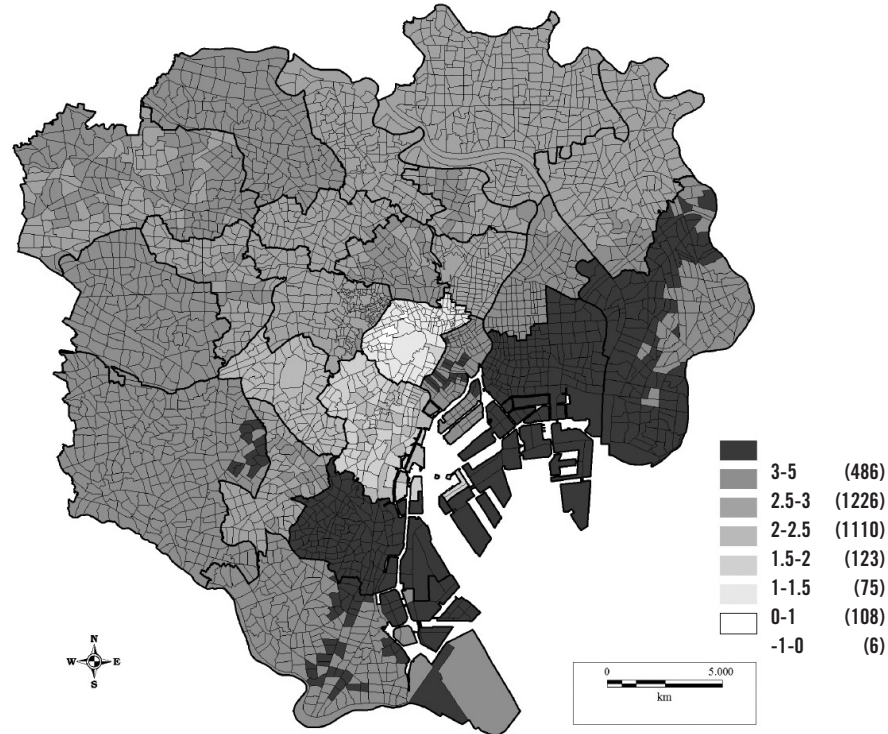
The area distributions show that while the levels of risk-adjusted returns are low in the central Tokyo and southwestern areas, which include Setagaya Ward, Meguro Ward and Shinagawa Ward, they are high in the eastern areas. This trend is prominent in office investments.

Based on comparisons using this type of analysis, investments in the central Tokyo area, which has a large

## Selection of the Winning Office Investment Market: Case of Tokyo

Figure 3

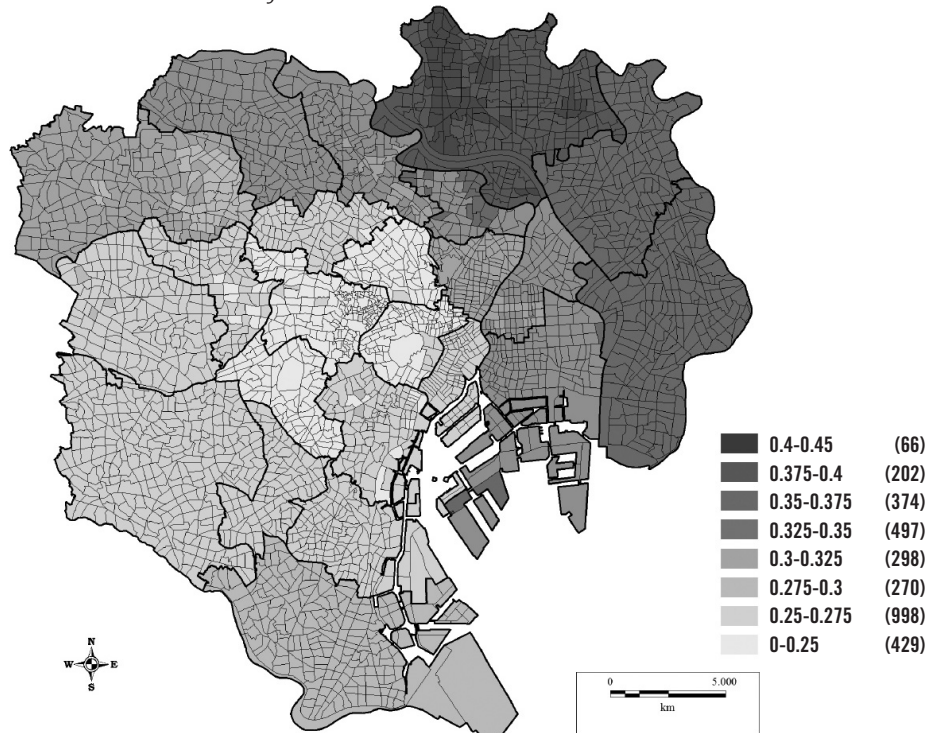
## Residential Investments: Average Overall Rates of Return



Source: Shimizu, 2012

Figure 4

## Risk-adjusted Returns: Offices

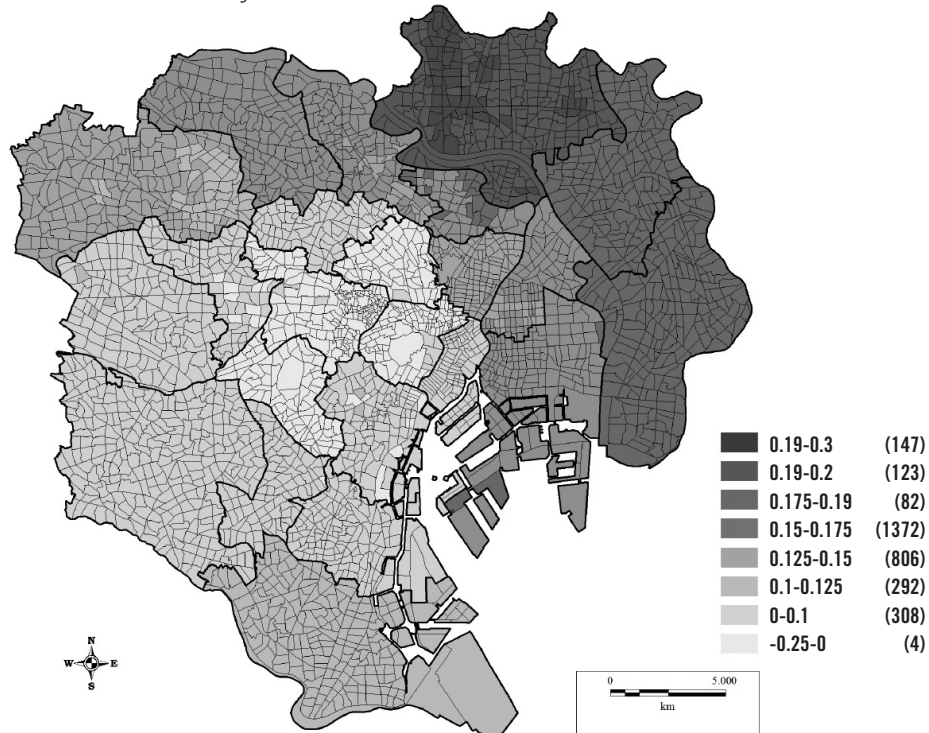


Source: Shimizu, 2012



## Selection of the Winning Office Investment Market: Case of Tokyo

Figure 5  
Risk-adjusted Returns: Residences



Source: Shimizu, 2012

economic concentration over the past quarter century, attained only low returns compared to the suburbs.

Based on the series of analyses above, we were able to see the changes of real estate investment returns for the past quarter century. From these analyses, one might predict the direction in which the selection of real estate markets could be heading, using detailed area units.

#### SELECTION OF REAL ESTATE INVESTMENT MARKETS

One of the most important elements that determine the rate of return for a real estate investment is the final selling price. It can be said that the biggest risk arises when no buyer can be found at the sales stage. This is an issue to be most cautious about as the whole economy is trending toward shrinking, and the need for real estate is stagnating.

In real estate investment, except in the case of securitization of real estate development, real estate is sold under the premise that its present use will remain the same, and a profit is determined accordingly. On the other hand, there can be a case where the future buyer demolishes the building and uses the new building for a new purpose. Such cases of converting to a new building as a way to improve the returns through redevelopment have

occurred for some time. However, in such cases, it means that the present building value becomes zero. In other words, the value of the real estate at the sales stage would include only the land value. As a result, such real estate's price would largely decline, and the probability that there would be large losses on the investment return becomes high. In addition, if the redevelopment does not bring about any improvement on the returns, there is a possibility that no buyer would be found. With respect to an office investment in Tokyo, this is an issue that requires the most care.

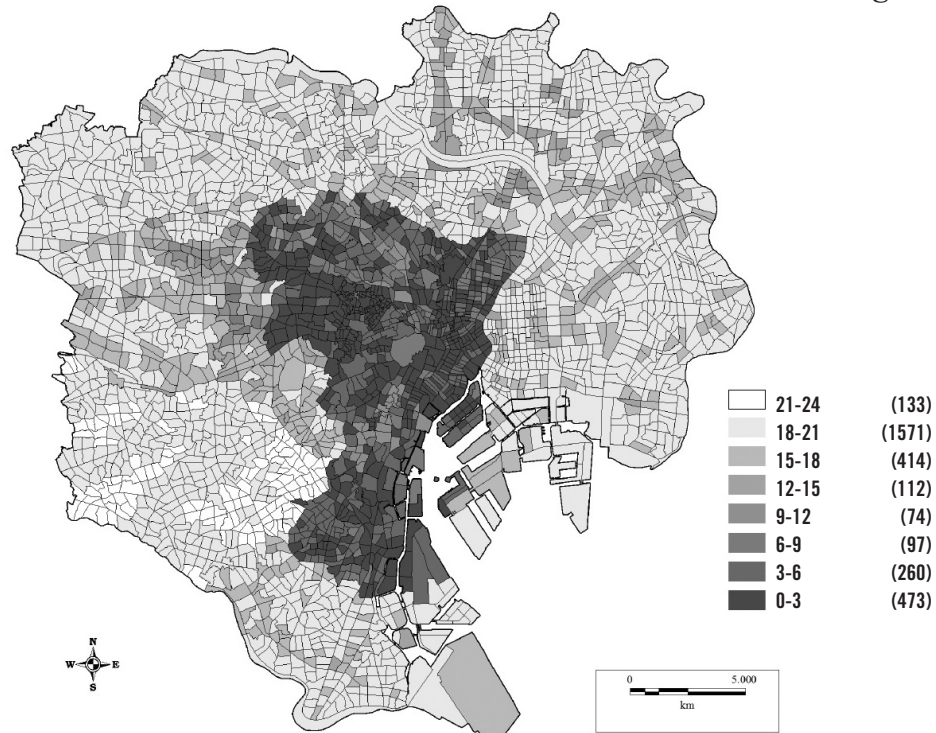
When looking at future real estate needs in Tokyo, it can be predicted that office building needs in particular will largely decline because of the effects of an aging society and the accompanying rapid decline in the working age population. In such case, there will be redundancy in the inventory of office buildings. If there is redundancy of office buildings, it does not necessarily follow that vacancy rates in all areas or buildings will on average increase or that the rents will decrease. It would be more natural to assume a case where, in a specific area, the vacancy rates increase all at once, and in the end, it becomes difficult to find tenants no matter how much the



## Selection of the Winning Office Investment Market: Case of Tokyo

Figure 6

## Spatial Distribution of Numbers of Years Where Excess Returns were Negative



Source: Shimizu, 2012

rents are reduced. This is a phenomenon that has already been witnessed in many suburban cities.

In order to avoid such an issue, investments must be made by selecting areas where there is a high probability that the buildings will continue to be used in the future.

From what viewpoint should investment areas be selected?

In Shimizu, Karato and Asami (2010) and Shimizu (2012), a panel random probit model was used to make predictions regarding changes in building use.<sup>7</sup> Based on this model, it became clear that when the return differentials became large when comparing buildings with dissimilar uses, conversions of building use progressed. Among such differentials, it has been statistically shown that rent differentials of risk-adjusted returns ( $d_{jt}$ ) have significant effects.

$$d_{jt} = \frac{\varphi_{jt}/\sigma_j|Office}{\varphi_{jt}/\sigma_j|Residential}$$

Specifically, even with respect to areas where buildings were used as offices, such areas were converted from the

office market to the residential market when returns from office use were found to be relatively lower compared to returns from other uses, such as residential use. It has been predicted that areas that fell into such situations had no choice but to redevelop or suffer from very high liquidity risk.

If return differentials are considered to be signals that prognosticate future changes in the market, it is possible to predict an eligible area for office investments based on the track record of past return differentials. Specifically, when analyzing the office market, we can verify at what scale the risk-adjusted returns, when spaces were used as offices, exceeded or fell below the risk-adjusted returns when spaces were used as residences.

Accordingly, the author looked back over the past 25 years and compared the risk-adjusted returns when spaces were used as offices versus the risk-adjusted returns when spaces were used as residences. Then, within this fluctuating real estate market, the author counted the number of years where the risk-adjusted returns, when spaces were used as residences, exceeded the risk-adjusted returns when spaces were used as offices. It can be interpreted that

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the lower the number of years, the stronger the earning power of office spaces were as compared to the earning power of residential spaces.

Figure 6 shows the spatial distribution of numbers of years. According to this distribution, there were only 303 areas out of 3,134 areas where return differentials were never positive. Such areas are limited to Chiyoda Ward, Chuo Ward, Minato Ward, Shinjuku Ward, Toshima Ward, Shinagawa Ward and Taito Ward. Even within Chiyoda Ward, which has the highest average office rents or prices, the area is extremely limited.

This suggests that going forward with regard to office investments in Tokyo's 23 wards, investment decisions must be made within more limited area units.

### CONCLUSION: GUIDE TO REAL ESTATE INVESTMENT DURING A DECLINING PHASE

Japan's economy still holds the number three spot in the world on a GDP basis. Japan's political and economic function is concentrated in Tokyo's 23 wards. The social capital and infrastructure required to support the above function are also in place. Tokyo is one of the largest cities in the world, with the daytime population being 11,284,699, according to the 2005 national census, and the nighttime population being 8,949,863 as of 2010. Further, Tokyo's economic scale (gross product within Tokyo) is estimated to be approximately 85 trillion yen (2009) and accounts for one-sixth that of Japan.<sup>8</sup> This means that the Tokyo real estate market, taking into account Tokyo's economic scale and quality of the inventory, would be considered one of the world's most attractive markets.

However, it cannot be denied that growth itself is declining. Compared to many of the Asian countries and developing cities that are showing notable growth, the residual growth power of Tokyo is inferior.

Provided that consideration be paid to a few strong assumptions, the series of analyses in this article suggests the following with regard to a real estate investment.

The first suggestion relates to the spatial distribution, in detailed area units, of the real estate investment returns for the past 25 years. When observing the returns on real estate investment during the quarter century that includes Tokyo's economic bubble, it was found that such returns were not necessarily high in areas that had strong growth. With respect to areas that had strong growth, the margin

of decline became greater to the extent that prices rose, and such areas ended up being exposed to high risks.

This suggests that when looking at the real estate investment returns under a long-term perspective, although good capital returns could be expected when investing in areas with potential growth or that have residual growth, such investment also would be accompanied by greater risks.

Meanwhile, if investing in fully grown areas, fixed stable returns can be expected because such areas are being supported by high income returns. When thinking about it in this way, it can be predicted that although large capital returns cannot be expected in Tokyo going forward, exposure to risks in connection with large-scale price fluctuations would also be small.

The second suggestion is made with regard to area selection when undertaking an office investment going forward. When thinking about Tokyo's office investment market, the fact that there will be an overall decline in real estate needs cannot be avoided. In such a case, not being able to sell the real estate upon the expiration of the investment term is an issue that must be avoided at all costs. Thus, investing in an area or building that at some point in the future will end up with zero returns and requires redevelopment must be avoided. In order to avoid this risk, there is an increasing need to rigorously select an area for office investment.

When supposing an office investment in Tokyo's 23 wards, how should the area be selected?

When we looked, from the perspective of making an office investment, for areas in which the office risk-adjusted returns consecutively exceeded the residential risk-adjusted returns for the past quarter century, an extremely limited number of areas—namely, 303 areas—were extracted.

When looking at these 303 areas, the following trends can be recognized.

Tokyo's city formation has been taking place over a long period of time. It began with the founding of the Edo government (1600–1867), and through the Meiji Restoration (1868), when the city function of Tokyo was crystallized as the capital of modern Japan. The shape of the present city was formed as a result of restoration work, first following the Great Kanto Earthquake,<sup>9</sup> and then following the destruction from World War II. Under

## Selection of the Winning Office Investment Market: Case of Tokyo

such premise, business areas and residential areas that were to serve as nucleuses were formed. And, in the midst of the rapid post-war increase in population and economic growth, Tokyo's city space had to be expanded.

Within Tokyo's city space, there exist areas that serve as nucleuses for businesses and areas that serve as nucleuses for residences. Among them are mixtures of areas that, on the one hand, have not experienced any great changes for a long time, and on the other hand, have experienced rapid changes to their land and building use. Areas that have the highest risk-adjusted returns such as Otemachi, Marunouchi and Nihonbashi have been Tokyo's central business areas through the periods of Edo (1600–1867), Meiji (1868–1912), Taisho (1912–1926), Showa (1926–1989) and Heisei (1989). In such areas, much social capital is accumulated. There is an overlap between many such areas and the 303 areas that were extracted.

It can be easily anticipated that areas whose land use was converted from agricultural or residential use to office use following a temporary need to expand office spaces will, under the assumption that Tokyo will shrink, experience use conversions from offices back to residences. Even within the Tokyo area, there will be areas that will likely be reconverted to agricultural land.

The analyses expressed in this article are simply one type of measure. However, it should be apparent just from this article's analyses that it is essential to have a clear policy of market selection when proceeding with an investment in Tokyo's real estate.

In facing a real estate market that is about to encounter a declining phase in European countries, the U.S. and Japan, keen attention should be paid to how the subject of real estate investment will establish measurements regarding market or area selection in a city. ■

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### ENDNOTES

1. In Knight, 2002, it has been pointed out that as the market stagnation period lengthens, a stigma is created that the real estate is unsalable, causing a decrease in the final selling price.
2. In Glower, Haurin and Hendershot, 1998, the sellers' motivation to sell has been surveyed by telephone and the relationship between the sale asking price and the market stagnation period has been examined. The results obtained indicate that when comparing those sellers who need to sell their real estate quickly because of, for example, a change in employment, versus sellers who do not, the asking price of the former is lowered by about 30 percent. This is innovative research in which the differences in selling price based on the actual circumstances of the transactions, as would be referred to in an appraisal, are being surveyed empirically.
3. This is also true in the residential market. It is known that households that have considerable amounts of home loans outstanding tend to set the seller's asking price high and take awhile to bring such price down, which prolongs the market stagnation period (Genesove and Mayer 1997, 2001, and Engelhardt, 2003). In a securitized real estate investment, if the real estate is to be sold at a price that is lower than the outstanding loan amount, the selling price cannot be lowered unilaterally as it would cause financial institutions to incur losses.
4. It has been reported that even in the case of the residential market, the market stagnation period differs for standard real estate versus atypical real estate such as big-sized real estate, and that the more atypical the real estate, the longer the market stagnation period (Haurin, 1988).
5. See Shimizu, et. al, 2012.
6. The focus was placed on the surveyed areas under the national

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census of 2005. In principle, the areas subject to surveys done for the national census correspond to each district in each town.

7. Panel random probit model refers to a probit model that has implemented panel data. In this context, three points of chronological data—1991–1996, 1996–2001 and 2001–2006—were used as panel data, and this model has made estimations using cross-section data in mesh units. Random probit model has investigated the effects of excess returns on real estate by applying one of the following variables: if increased, the variable would be 1; and, if not, the variable would be 0.
8. Japan's nominal GDP in 2009 was 474,040.2 billion yen. The gross product within Tokyo in 2007 was 93 trillion yen, but following the economic crisis, it declined at once. It is thought that this is because the financial businesses that were affected the most from the economic crisis are accumulated in Tokyo.
9. The Great Kanto Earthquake occurred in 1923 with a magnitude of 7.9, centered in 80 kilometers northeast offshore of the Sagami Bay, has been the most devastating earthquake in Japan. In the course of restoration from the quake, Tokyo built up its framework as a modern city by proactively developing infrastructure through street expansion programs, land readjustment programs and other measures.

# Best Practices in High-Performance Office Development: The Duke Energy Center in Charlotte, North Carolina

BY THOMAS A. DORSEY, MAI, SRA; AND DUSTIN C. READ, PH.D., J.D.

## INTRODUCTION

LEED CERTIFICATION HAS EMERGED AS THE STANDARD OF excellence in many office markets across the country because the principles of sustainable development are closely aligned with the requirements for Class A assets.<sup>1</sup> These high-performance buildings are often the most prestigious in their markets and compete for prospective tenants by not only offering operational efficiencies and an attractive work environment, but also by providing tenants with a means of demonstrating their commitment to environmental conservation.<sup>2</sup> The latter of these objectives has become increasingly important as a result of the corporate social responsibility movement and the resulting pressure placed on companies to evaluate their performance using economic, social and environmental measures of success.<sup>3</sup>

Notwithstanding the aforementioned benefits, real estate investors must evaluate the financial viability of LEED-certified projects using traditional valuation methodologies. Any construction cost premium required to complete these buildings must therefore be offset by a cost of capital advantage or an increase in net operating income generated by higher rental rates, lower vacancy levels or a reduction in operating expenses. The analysis presented in this article addresses these issues by briefly reviewing existing sustainable development research and evaluating the results within the context of the Duke Energy Center in Charlotte, North Carolina.

The Duke Energy Center serves as a noteworthy case study because it was the first office tower in the country to earn the LEED Platinum Core and Shell certification

under the Version 2.0 criteria. Completed in 2010, the building includes 48 floors and nearly 1.5 million square feet of multi-tenant office space. The owner, Wells Fargo and Company, used the project to demonstrate its commitment to sustainable development, while also taking steps to increase net operating income and maximize return on investment. The results to date have been very promising and the property serves as an excellent example of best practices in high-performance office development.

## EVALUATING THE COSTS AND BENEFITS OF HIGH-PERFORMANCE OFFICE DEVELOPMENT

Before discussing the Duke Energy Center in detail, it is useful to consider the potential effects of LEED certification

### About the Authors



**Thomas A. Dorsey, MAI, SRA**, is a LEED AP and is qualified as a real estate appraiser, broker and general contractor. He earned his bachelor's degree at Case Western Reserve University and a master's degree in business administration at Florida Atlantic University. Dorsey is a senior vice president in Wells Fargo's Corporate Properties Group in Charlotte, North Carolina.



**Dustin C. Read, PH.D., J.D.**, serves as the director of the Center for Real Estate at the University of North Carolina at Charlotte. He earned his doctorate degree in public policy at UNC Charlotte and his juris doctor at the University of Missouri. Read's research interests include land use policy, public-private partnerships and sustainable development practices.



## Best Practices in High-Performance Office Development: The Duke Energy Center in Charlotte, North Carolina

on upfront construction costs and future revenues. These economic factors have become easier to evaluate over time as the number of buildings carrying the certification has grown. For example, research conducted over the last decade indicates that LEED certification can increase the cost of constructing an office building by as little as 0.6 percent or as much as 6.8 percent depending upon a variety of factors.<sup>4</sup> Results such as these have led some cost estimating experts to conclude that LEED certification need not significantly increase upfront costs when design and building professionals work together with product manufacturers to seek out sources of savings.<sup>5</sup> At the very least, certification is unlikely to increase construction costs by 15–20 percent, as predicted in some investor surveys.<sup>6</sup>

One of the most effective ways to limit any cost premiums associated with LEED certification is to bring together an experienced team of professionals in the initial stages of a project. The earlier these professionals are engaged, the more likely it is that the owner will have a high-performance building, rather than one made up of individual systems that do not leverage each other to the highest advantage. The team should include architects, engineers, contractors, property managers, and appraisers, among others. All of these professionals should be tasked with the responsibility of identifying potential upfront cost savings, while being mindful of lifecycle benefits that may result from sustainable building technologies, systems and materials.

In the event pursuing LEED certification is anticipated to increase upfront construction costs for a given project, it is not necessarily fatal to the transaction. The question becomes whether or not sustainable design features will increase revenues or reduce costs in an amount sufficient to offset the initial capital outlay. Several recent studies address these questions directly. On the revenue side, studies examining over 7,000 office buildings have found rent premiums of approximately 2.5–3 percent in LEED-certified properties after controlling for differences in quality and location.<sup>7</sup> Earlier research relying on smaller datasets and limited control variables have found higher rent premiums, but the results must be interpreted cautiously due to these data limitations.<sup>8</sup> Lower vacancy rates have additionally been observed in high-performance buildings. LEED-certified properties appear to enjoy occupancy levels 1.5–7 percent higher than their non-certified peers.<sup>9</sup> These benefits, along with faster absorption of space and higher tenant retention, may generate an increase in net operating income sufficient in size to

offset any cost premium required to construct a high-performance building.

All of the benefits discussed above contribute to another source of revenue from LEED-certified buildings—an increase in the asset's value at the time of sale. Recent empirical studies suggest certified properties sell for premiums of 16 percent or higher when compared to non-certified alternatives.<sup>10</sup> While these statistical analyses have their limitations, the sales price premium is logical based on evidence of higher net operating income and/or a cost of capital advantage associated with LEED certification. The latter is likely if investors perceive certified buildings to be less risky investments because they are insulated to a degree from physical and functional obsolescence. These types of obsolescence occur as systems age and as market expectations evolve. Arguably, buildings constructed to the most advanced standards will have longer obsolescence curves (e.g., longer periods in which they have a competitive advantage). Intelligent building systems that simultaneously minimize water and energy consumption are one feature of high-performance buildings that may elongate their obsolescence curves.

Interestingly, the magnitude of operating cost savings in LEED-certified buildings continues to be a subject of debate. Single-observation case studies examining assets before and after LEED “retrofits” report significant reductions in both water and energy usage. However, studies relying on much larger datasets have failed to observe measurable reductions in aggregate operating costs.<sup>11</sup> More research is needed in this area to quantify the magnitude and source of operating cost savings in high-performance assets. Property owners with an understanding of these operational efficiencies are likely to be in a better position to attract tenants in the ever competitive Class A office market.

### LEED CERTIFICATION AS A MARKETING TOOL

Class A office buildings tend to include many advanced design features and technologies consistent with high-performance office development, regardless of whether or not they are LEED-certified. The decision to pursue independent third-party ratings and assessments is therefore driven by the developer or owner's desire to label an asset in a way that sets it apart from competitors. By providing a differentiated product, real estate investors hope to obtain rent premiums. The aforementioned empirical studies confirm the existence of such a premium for certified space, but it is difficult to deter-

## Best Practices in High-Performance Office Development: The Duke Energy Center in Charlotte, North Carolina

mine whether it should be attributed to the physical characteristics of high-performance buildings or the desire for tenants to present a “green” corporate image. Both explanations are plausible.

Some of the physical attributes of high-performance buildings likely to increase rents, occupancy, tenant retention, and absorption include conservation features, amenities and location. Since the LEED certification process focuses on resource conservation, particularly water and electricity, these properties have the potential to affect the tenant’s bottom line under most lease structures. Anticipated operating cost savings may therefore be capitalized into rental rates. As for amenities, high-performance buildings often include green roofs, open areas, preferred parking for fuel efficient vehicles, bicycle storage, exposure to natural light, and many other features that tenants are willing to pay for to some degree. Finally, buildings carrying a LEED certification are often located on redevelopment sites in close proximity to public transportation and other urban services. These locational attributes are generally attractive to prospective tenants and may produce rent premiums.

Less visible, but still important, benefits generated by the physical attributes of high-performance buildings include greater workplace satisfaction among occupants. LEED-certified buildings are believed to provide a more enjoyable work environment, which may in turn increase productivity and reduce absenteeism. At least two recent studies provide empirical support for this hypothesis. In a 2007 survey of corporate executive, 75 percent of the respondents cited “greater workforce productivity” as a motive for retrofits involving sustainable design features, while 69 percent believed these retrofits would be a factor in attracting and retaining a quality workforce.<sup>12</sup> More than 40 percent of the respondents participating in a similar survey reported an increase in productivity and reduced absenteeism after relocating to a LEED-certified building.<sup>13</sup>

Despite the benefits high-performance buildings can offer all of their occupants, these properties have proven to be more attractive to some tenants than others. A recent study of more than 11,000 office tenants found a strong preference for LEED-certified buildings amongst construction, energy, finance and non-profit firms, as well as public sector organizations and those employing highly skilled labor.<sup>14</sup> The results are attributed, in part, to the need for these organizations to demonstrate their

commitment to sustainability. Survey data confirms this motivation, where as many as 88 percent of respondents have cited “corporate environmental commitment” as a factor encouraging sustainable design retrofits.<sup>15</sup> The findings suggest real estate developers interested in obtaining rent premiums for LEED-certified buildings should focus their marketing efforts on tenant groups with a demonstrated preference for sustainable assets or those that have the most to gain by presenting an environmentally-conscious corporate image.

### THE DUKE ENERGY CENTER

The Duke Energy Center serves as an example of best practices in office development because it is a high-performance asset. The LEED Platinum-certified property includes intelligent building systems that reduce operating costs, as well as amenities that are consistent with the principles of sustainability. Many of the tenants in the building have explicit corporate commitments to environmental conservation and all have agreed to lease provisions requiring LEED-certified up-fits. Approximately 34 percent of the building’s materials originate from within 500 miles of Charlotte and 25 percent of all materials were derived from recycled content. The net result is a win for the owner, the occupants and the community.

In response to the shortage of green space in the urban environment, the building provides two open areas. One is a traditional ground-level plaza, complete with shaded seating and potted landscaping. The other is a 10th floor rooftop landscaped with small trees and shrubs, where occupants can sit and interact. Both open spaces are irrigated exclusively with captured and recycled storm water. The green roof is a particularly beneficial amenity for the owner because it serves as a location for special events, while also providing a higher insulation value than a conventional roof, with a projected life expectancy twice as long.

Other amenities include a 2,100-space subterranean parking deck that serves both the building and the adjacent cultural arts campus. Office tenants, visitors and patrons of three museums and an adjoining theatre benefit from preferential parking for low-emission vehicles. Locating the parking underground required 120 feet of excavation but also created a much less dense above-ground experience and enabled the treatment of millions of gallons of contaminated groundwater. Nearby light rail and bus services, in addition to onsite showers

## Best Practices in High-Performance Office Development: The Duke Energy Center in Charlotte, North Carolina

and bicycle storage, offer viable alternatives to those interested in accessing the site without a car.

Efforts to enhance the tenant experience through improved lighting and air quality can also be observed throughout the Duke Energy Center. Most of the interior up-fits include glass-walled conference rooms and open work areas that allow natural light to travel through the space. With few exceptions, private offices tend to be located away from the windows. These features reduce the need for overhead lighting to illuminate the interior of the building's large floor plates. Overhead lights that are in place automatically dim in response to natural light and turn off in areas that are not occupied. Heat gain through the windows is managed with lower blinds that are adjusted by the occupant and computer-operated upper blinds that adjust automatically with the movement of the sun to harvest daylight. All of these features serve to increase workplace satisfaction among tenants while simultaneously reducing energy consumption by limiting the building's cooling load and need for artificial light.

Air quality in the building is maximized through stringent performance standards. Ducts are sealed, equipment is protected, and low VOC products are used during construction and operations. VOC is the acronym for volatile organic compounds often found in carpet, wood, sealants, adhesives, and cleaning products. Whether noticeable or not, these products can continually put off gas for years after the original installation or application. The fumes can trigger allergic reactions and negatively affect the health of building occupants, thereby contributing to absenteeism and reduced productivity. Low VOC products address these problems and can dramatically improve the work environment for many individuals.

Energy consumption in the Duke Energy Center is reduced through the use of 17 separate intelligent building systems that converge into a single network supported by IT-grade fiber.<sup>16</sup> Building managers can use the network to support a wide variety of controls, capture real-time data and produce meaningful reports that contribute to operational efficiencies. Measuring and controlling performance in this manner provides an opportunity to identify and realize energy savings each and every day. According to Cisco and Intelligent Buildings, LLC, combining these systems saved more than \$700,000 in up-front expense.

Another one of the building's interesting features is an

elevator tower served by a system known as "Destination Dispatch™." Passengers choose their destination using touch-pads in the lobbies and receive an immediate response directing them to a specific elevator cab. There are no floor buttons in the cabs themselves. The design uses operations research and proprietary algorithms to route persons who have the same or nearby destinations to a single cab. Generally, this results in less crowded cabs and fewer stops. Depending on the time of day and volume of activity, the trip time can be reduced by as much as 25 percent. At the same time, the cabs are up to 30 percent more efficient. They have a higher handling capacity, meaning fewer elevators are required to produce an acceptable level of service. Reducing the number of elevator shafts results in additional rentable area on all 48 floors of the building.

Each floor of the building is also sub-metered so that tenants can identify and directly influence the amount of electrical energy required to support their occupancy. Since tenants bear the cost of electricity, there is an incentive to manage HVAC, lighting and equipment needs. Tenants tend to view this as a positive, knowing that they do not subsidize other large energy users in the building.

In addition to energy savings, the integrated approach to building design found throughout the Duke Energy Center contributes to a significant reduction in water consumption. Today, the facility purchases 30 million fewer gallons of water per year than assets of similar size, resulting in annual cost savings of approximately \$125,000. Substantial water savings are realized in three areas. First, the building uses nearly 25 million gallons of groundwater captured from the underground parking decks to operate the heating and cooling system. Second, the building captures and deploys 1.6 million gallons of stormwater every year for irrigation. Third, dual-flush technology and waterless urinals in the restroom facilities reduce water consumption by over 4.3 million gallons per year. Rainwater, groundwater and condensate capture are made possible by three underground storage tanks with aggregate capacity of 310,000 gallons.<sup>17</sup> At full occupancy, the building's water usage is anticipated to be 75 percent more efficient than assets of similar size. These efficiencies, as well as those related to energy consumption, are measureable, and the information can be conveyed to prospective tenants evaluating the value proposition of the building as a potential home for their operations.

## Best Practices in High-Performance Office Development: The Duke Energy Center in Charlotte, North Carolina

### THE KEYS TO SUCCESS

The success of the Duke Energy Center can be attributed to the owner's commitment to sustainable development and a series of design features that maximize return on investment. Prospective tenants continue to be drawn to the building, and according to management, there is no doubt that sustainability serves as a marketing advantage. Major corporations recognize the value of the workplace amenities and many employees have expressed their desire to be associated with a project promoting the responsible use of resources. In a challenging market, the asset is approaching full occupancy. Substantial progress is also being made towards efficiency objectives. Post-completion forecasts suggest the building will use 22 percent less energy and 75 percent less water than similarly sized assets. Workplace productivity is projected to increase by two percent in comparison to other Class A office buildings without similar features. The estimated three percent construction cost premium required to complete the project is anticipated to be paid back within a 10-year period. These projections are in the process of being validated as the building moves towards full occupancy, but overall, the Duke Energy Center marks a notable achievement in high-performance office development and may serve as an example of the financial viability of similar projects in the future. ■

### ENDNOTES

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14. Eichholtz, P., Kok, N., and Quigley, J. M., 2010. "Doing Well by Doing Good? Green Office Buildings," *American Economic Review*, 100:5, pp. 2492–2509.
15. Deloitte and Charles Lookwood, op. cit. at 12.
16. The 17 systems supporting energy and water conservation, along with building operations, include: (1) electrical sub-metering; (2) water metering; (3) automatic blinds; (4) irrigation control; (5) audio and video conferencing; (6) VOIP (voice over Internet protocol) phones; (7) exterior lighting; (8) interior lighting; (9) digital signage; (10) elevators; (11) barrier gates; (12) VOIP emergency intercoms; (13) parking controls; (14) video surveillance; (15) access controls; (16) building automation (HVAC control system); and (17) 800 MHz life safety radio communications.
17. The system includes two 170,000-gallon tanks for cooling tower make-up water and one 140,000-gallon tank for rainwater storage. These tanks store water that is collected from a variety of sources, including a potential annual supply of: 1.6 million gallons from rainwater; 1.2 million gallons from condensate; and 26.2 million gallons from groundwater.



# Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market

BY CHARLES A. SMITH, PH.D.; RAHUL VERMA, PH.D.; AND JUSTO MANRIQUE, PH.D.

## INTRODUCTION

THIS ARTICLE PRESENTS A STRAIGHTFORWARD TECHNIQUE that can be used by appraisers, consultants, asset managers and others in the field to forecast demand for needed new apartment units and trends in rental rates. The types of data required for the analysis are available in all but the smallest market areas and the techniques require only that analysts have a minimum working knowledge of Excel. The ideas and thoughts presented here can also be extended to other property types. This article, therefore, may have benefits to a wide range of constituents in the field working over almost any type of property.

A secondary benefit of using a technique similar to what is presented here is to help avoid the sometimes chaotic and destructive gyrations in demand/supply imbalances. If need for space can be more accurately forecast, then imbalances can be reduced.

## HISTORICAL PERSPECTIVE

The Houston-area data provided by REVAC Inc. is used to present the historical perspective. Figure 1 reports the annual data on new apartment construction, mean monthly rents, rate of change in rents and the apartment occupancy rate during the years 1980–2011. The mean monthly rent in this area has been approximately \$500, which has grown at an average of 3.35 percent per year, while almost 10,000 (average 9992 from 1980–2012) new apartments were constructed every year. Moreover, more than 90 percent of the apartments were leased during this period. However, very high standard deviations as compared to the means in the case of new apartment constructions and growth in rents suggest that the apartment market has been highly volatile in the past. The new apartment construction in 1983 was almost 35,000

units, while in 1987, it fell to only 84. Similarly, the maximum and minimum values of growth in rents were approximately 29 percent and -9 percent during 1981 and 1985 respectively.

## About the Authors



**Charles Smith, Ph.D.**, is a full professor of Finance at the University of Houston-Downtown. He received his doctorate degree in Real Estate from Texas A&M University. Smith's research interest is real estate valuation and appraisal. He has also provided real estate appraisal and consultancy services over 30-plus years to the business community.



**Rahul Verma, Ph.D.**, is associate professor of Finance at the University of Houston-Downtown. Verma's research is at the intersection of investments, international finance and behavioral finance disciplines. The research focuses on understanding the relevant variables that affect the international financial markets. Verma develops and tests empirical models that combine global risk factors and investors' irrationality to scientifically explain financial market movements.



**Justo Manrique, Ph.D.**, is associate professor of Economics and Chairman of the FACIS Department at the University of Houston - Downtown. Manrique earned his doctorate degree in Agricultural Economics from Iowa State University. He performs research in applied econometrics, applied microeconomics, and demand studies. Manrique has authored and co-authored several papers published in top-tier peer review journals such as Applied Economics, Journal of Agricultural Economics, Applied Financial Economics, and Agribusiness: An International Journal. He also has received several research awards.



## Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market

The past few years of data indicate that the greater Houston area's apartment market continued to show signs of weakness in 2009 in terms of rental increases, as rents fell by 0.41 percent after increasing by only 1.94 percent in 2009, and 4.63 percent in 2008. The average rents have increased to \$756 a month in 2011 from \$298 in 1980.

Figure 1  
Apartment Data

Year	New apartment construction	Mean monthly rents	% Change rents	Occupancy rates
1980	17,400	\$298		90.50%
1981	14,051	\$385	29.19%	97.00%
1982	26,639	\$392	1.82%	86.00%
1983	34,744	\$377	-3.83%	82.00%
1984	17,662	\$356	-5.57%	82.00%
1985	2,992	\$324	-8.99%	84.00%
1986	1,867	\$314	-3.09%	82.00%
1987	84	\$316	0.64%	83.00%
1988	731	\$329	4.11%	87.00%
1989	1,435	\$363	10.33%	90.00%
1990	2,629	\$392	7.99%	92.00%
1991	2,152	\$423	7.91%	93.00%
1992	5,468	\$435	2.84%	92.00%
1993	1,773	\$458	5.29%	92.00%
1994	5,180	\$465	1.53%	92.00%
1995	5,339	\$482	3.66%	94.00%
1996	3,614	\$495	2.70%	95.00%
1997	5,342	\$520	5.05%	96.00%
1998	10,510	\$550	5.77%	97.00%
1999	25,472	\$585	6.36%	96.00%
2000	9,417	\$600	2.56%	94.00%
2001	10,228	\$629	4.83%	96.00%
2002	5,179	\$655	4.13%	95.00%
2003	13,844	\$663	1.22%	92.00%
2004	14,628	\$658	-0.75%	88.00%
2005	11,913	\$668	1.52%	91.00%
2006	9,168	\$678	1.50%	91.00%
2007	12,462	\$691	1.92%	90.00%
2008	17,716	\$723	4.63%	89.00%
2009	19,585	\$737	1.94%	88.00%
2010	5,311	\$734	-0.41%	88.00%
2011	5,211	\$756	3.00%	89.00%
<b>Mean</b>	<b>9,992</b>	<b>\$514</b>	<b>3.35%</b>	<b>90.55%</b>
<b>Std. Dev.</b>	<b>8,443</b>	<b>\$151</b>	<b>6.25%</b>	<b>4.52%</b>

Source: REVAC, Inc.

This represents a 154 percent change over a 31-year period. On average, monthly rents have steadily increased in the subject market area over the past 30 years except for a period during the 1980s when rent decreased because of job losses. This trend was only repeated once again in 2004 where rents dropped from \$663 to \$658, most likely because of the negative 0.75 percent drop in jobs during the same time. The highest construction of new apartments over the past three decades was in 1983 with almost 35,000 units added. Since then new apartment construction peaked in 1999 at 25,472 units and has not returned to that level to date, with construction in 2011 at 5,211 units.

Figure 2 reports the employment data on nonagricultural wage and salary for the Primary Metropolitan Statistical Area (PMSA) obtained from the Texas Employment Commission for the period of 1975–2011. The PMSA data includes Harris, Fort Bend, Montgomery, Liberty and Waller counties, and excludes Chambers County. Specifically, Figure 2 reports the data on average annual employment, change in employment and growth in employment during this period. The average annual employment in these counties has been approximately 1.75 million and has shown an increase of approximately 37,000 new jobs per year—an average growth of 2.46 percent. Standard deviations of changes in employment of approximately 52,000 and 3.5 percent change in employment respectively suggest that the employment scenario has been somewhat turbulent during this period.

Although job growth was positive for 2004–2008, the percentage of apartments leased did not change appreciably. This was likely caused by the influx of first-time home buyers during these years. Because of subprime lending, people with little or poor credit were able to qualify for home loans without problems. Most of these were the same people who previously would have leased apartments because they did not have the credit or capital to purchase a house. However, since then, the housing bubble has burst and many of those first-time home buyers have lost their homes through foreclosure because they were unable to make the payments, especially those who were part of the 100,000 who lost their jobs in 2009–2010. It is worth noting that the long-term average is that approximately 65 percent of U.S. households live in owner-occupied housing. This means that about 2 out of 3 households in the U.S. have typically lived in homes they own. Just prior to 2006, this owner occupancy percentage increased to almost 70 percent but is currently falling.

## Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market

Figure 2  
Employment Data

Year	Average employment	Change in employment	Growth in employment
1975	993,000		
1976	1,057,900	64,900	6.54%
1977	1,126,000	68,100	6.44%
1978	1,229,800	103,800	9.22%
1979	1,318,800	89,000	7.24%
1980	1,399,000	80,200	6.08%
1981	1,517,200	118,200	8.45%
1982	1,541,500	24,300	1.60%
1983	1,444,900	-96,600	-6.27%
1984	1,476,100	31,200	2.16%
1985	1,479,000	2,900	0.20%
1986	1,410,900	-68,100	-4.60%
1987	1,386,600	-24,300	-1.72%
1988	1,448,300	61,700	4.45%
1989	1,515,600	67,300	4.65%
1990	1,605,700	90,100	5.94%
1991	1,630,200	24,500	1.53%
1992	1,631,900	1,700	0.10%
1993	1,659,200	27,300	1.67%
1994	1,704,300	45,100	2.72%
1995	1,756,600	52,300	3.07%
1996	1,780,300	23,700	1.35%
1997	1,884,505	104,205	5.85%
1998	1,983,672	99,167	5.26%
1999	2,014,839	31,167	1.57%
2000	2,072,205	57,366	2.85%
2001	2,101,283	29,078	1.40%
2002	2,095,064	-6,219	-0.30%
2003	2,079,345	-15,719	-0.75%
2004	2,093,926	14,581	0.70%
2005	2,157,079	63,153	3.02%
2006	2,246,560	89,481	4.15%
2007	2,342,907	96,347	4.29%
2008	2,393,949	51,042	2.18%
2009	2,331,805	-62,144	-2.60%
2010	2,310,025	-21,780	-0.93%
2011	2,336,905	26,880	1.16%
<b>Average</b>	1,765,663	37,331	2.46%
<b>Std.Dev.</b>	390,729	52,067	3.49%

Source: Texas Employment Commission

The economic downturn in 2002 that led to approximately 22,000 jobs being lost from 2002–2003 was enough to send the absorption rate to negative 14,564 by 2004. This net negative absorption indicated that 14,546 fewer new apartment units were occupied at the end of 2004 than had been occupied at the beginning of the previous year. The low absorption numbers from 2007–2009 could be also linked to subprime mortgage lending. During this period construction declined, although job growth remained positive.

The two-year drop in employment in 2002 and 2003 that led to approximately 22,000 jobs being lost during those years also caused occupancy rates to drop from 96 percent in 2001 to 88 percent by 2004. But job losses were not the only cause of this reduction in occupancy rates. Even though 15,000 jobs were lost in 2003, almost 14,000 new apartments were constructed that year. In order to compensate for the overabundance of apartments, owners and managers increased rents by only 1.22 percent in 2003, down from a 4.13 percent increase in 2002. Even with more than 14,000 jobs added to the Houston economy in 2004, apartment managers and owners did not see an increase in occupancy, possibly because there were also another 14,000 new apartments constructed during this same period. At this point, management actually lowered monthly rents for the first time since the mid-1980s.

In 1998, when average rents passed the monthly \$550 mark for the first time in Houston history, new apartment construction picked up. Construction had not been much more than 5,000 units per year since 1984. The 10,510 new apartments built in 1998 amounted to twice the number built during the previous year. In 1999, construction rose dramatically to 25,472 units, which proved to be an overreaction by developers because by 2000, there was a net negative absorption rate and vacancies increased from four to six percent. By the end of 2011, average rents had reached almost \$756 per unit per month and the vacancy rate stood at 11 percent.

Figure 3 reports the data (REVAC Inc.) on apartment market absorption rate and the ratio of change in employment for each unit of absorption during 1980–2011. The average annual absorption rate during this period is approximately 4,400 while the mean ratio of absorption and growth in employment is 6.86 for 30-plus years. This ratio of 6.86 means that between 1980 and 2011, for each 6.86 jobs created, there was one additional unit that

## Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market

Figure 3

### Apartment Absorption Rate

Year	Absorption rate	Change in employment per unit of absorption
1980	22,368	3.59
1981	2,381	49.64
1982	-23,382	-1.04
1983	4,471	-21.61
1984	4,978	6.27
1985	10,563	0.27
1986	-5,227	13.03
1987	-2,981	8.15
1988	15,758	3.92
1989	16,329	4.12
1990	9,182	9.81
1991	8,430	2.91
1992	1,011	1.68
1993	1,776	15.37
1994	1,029	43.83
1995	13,414	3.90
1996	3,378	7.02
1997	9,337	11.16
1998	8,566	11.58
1999	13,776	2.26
2000	-844	-67.97
2001	10,671	2.72
2002	-3,989	1.56
2003	5,892	-2.67
2004	-14,564	-1.00
2005	17,816	3.54
2006	6,192	14.45
2007	-918	-104.95
2008	799	63.88
2009	-4,753	13.07
2010	1,882	-11.57
2011	7,812	3.44
<b>Average</b>	<b>4,411</b>	
<b>Std.Dev.</b>	<b>9,266</b>	

Source: REVAC, Inc.

became occupied. Consistent with the findings in figures 1 and 2, these two variables also seem to suggest a strong variability in the new apartment rental market.

#### FORECASTING METHODS

Figures 1, 2 and 3 contain historical information relating

to the overall new apartment market in the Houston area; it also contains an analysis that can be used for forecasting purposes. Figure 4 contains a simple ratio analysis that can be beneficial in forecasting new apartment unit absorption over a long time frame. Specifically, we compute the following four ratios:

- Absorption per unit of employment;
- New jobs per unit of absorption;
- Jobs to 100 percent occupancy;
- Years to 100 percent occupancy.

The average employment gain per year for the past 30-plus years has been approximately 37,000 net new jobs. The past decade, which has seen two recessions, still had an average employment gain of 24,000 jobs per year (See Figure 2).

While the area has gained about 24,000 jobs per year over the past ten years, there have been just over 2,600 new apartment units absorbed each year. The crux of the idea presented in this paper is that there is a long-term, somewhat stable relationship between net new jobs created and absorption of space. By dividing the average per year job growth of 24,000 (past 10 years) by the average absorption of apartment units per year, an indication of the relationship between job growth and apartment absorption can be determined. Over the past 10 years approximately 236,000 new jobs have been added and approximately 27,000 net new units absorbed. The ratio of 8.79 ( $235,632/26,840 = 8.79$ ) is for the last 10 years. The ratio is 6.86 jobs per unit for the previous 30 years. This reinforces our discussions concerning the effects of the recession, the subprime market and changes in home ownership. Therefore it is imperative that the analyst in the field select the proper time frame that mirrors the market forces during the period being analyzed.

After estimating the relationship between job growth and apartment unit absorption it is then possible to estimate how long it will take to reach 100 percent occupancy. While we recognize that 100 percent occupancy has never been reached, the “index” of years to reach 100 percent serves as a “gauge” of the health of the new apartment market as influenced by the job market. The last row in Figure 4 contains an index of years to 100 percent, which indicates that if no new apartment units are built and job growth averages 37,000 per year; the vacant units will be filled and the overall vacancy rate in the Houston area will be zero in approximately twelve years.

## Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market

Figure 4  
Ratio Analysis

Absorption/Employment (Units/Job)	0.11
Jobs compared to absorption (Jobs/Unit)	8.79
Jobs to 100% occupancy (number)	439,177
Years to 100% occupancy (years)	11.76

Source: REVAC, Inc. and Texas Employment Commission

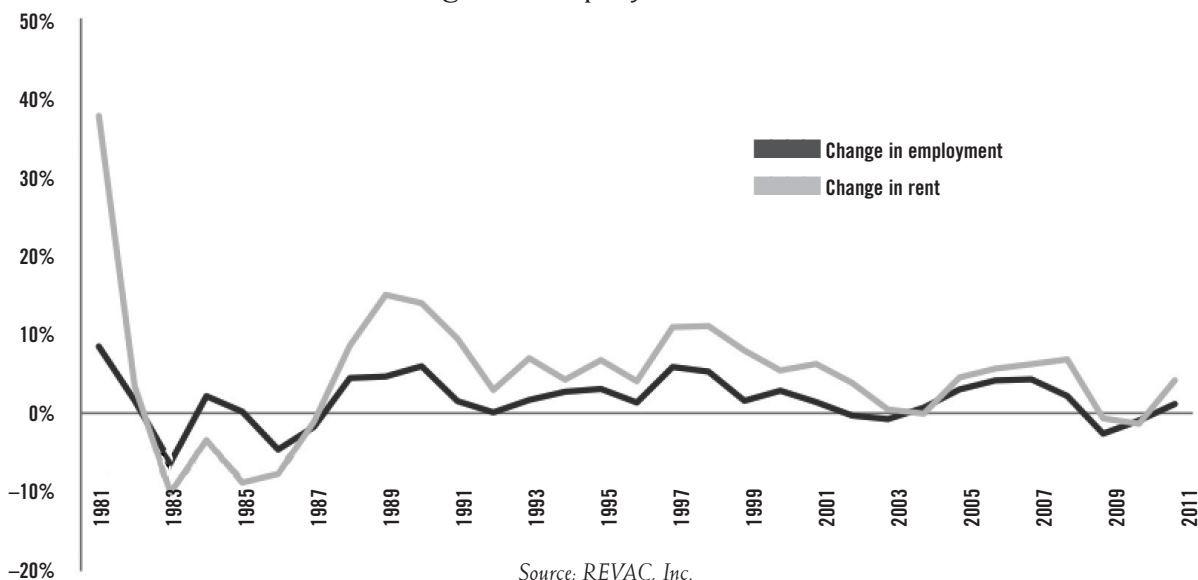
Figure 4 compares the percentage change in employment, with percentage change in rental price. It is evident that these two are directly related when looking at this chart. The two rise and fall in a distinctive pattern. First, employment changes and then rents tend to follow the same course. This supports the idea that a drop in employment will result in lower, or stagnant, rents. Looking at changes in employment can be an accurate indicator for those observing the new apartment market because, over decades, the same has usually been true. This indicates that new apartment owners and landlords can anticipate a need to lower, or not raise, rents during periods of little or no job growth.

A comparison of new apartment construction and absorption rates can be found in Figure 5. The data indicates that construction and absorption are not correlated. In an ideal world, new apartment construction

would occur when demand for new apartments was rising. However, this is not an ideal world, and there is a lead time for completion of new apartment buildings. An area may show a high absorption rate over a certain period—perhaps a year or more—leading investors and builders to speculate the need for new apartments, and so the process begins. First, land must be located and purchased, designs must be created, permits pulled, and after months or even years, ground can finally be broken on a new project. There is the time it takes to complete construction. During this time, the demand for new apartments can drop drastically, but in most cases construction cannot be stopped. This only lowers the absorption rate because the pool of available new apartments is larger than it was before.

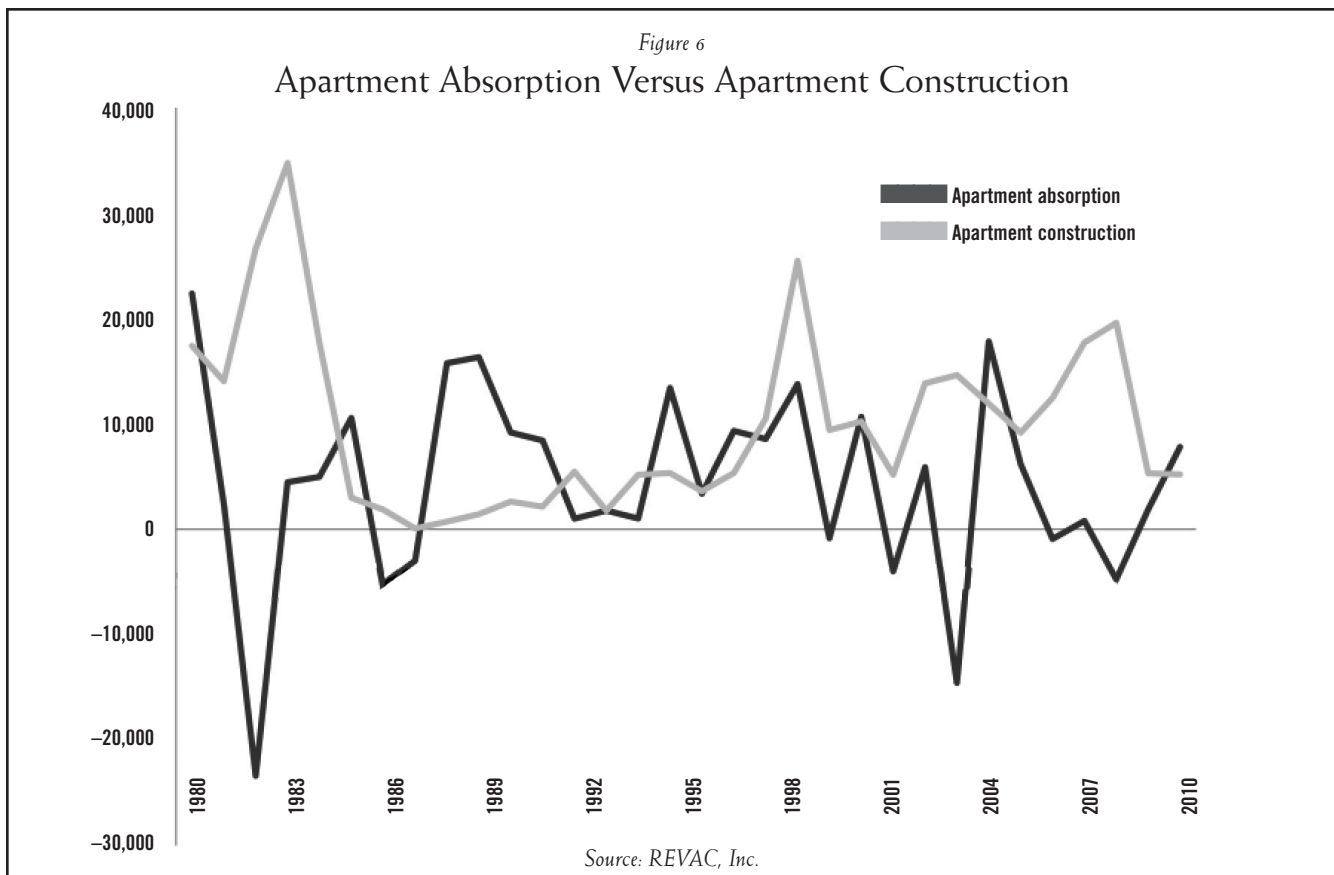
During the period from 1988–1996, the employment compared to absorption was just over six, which correlates to the creation of 141,000 jobs needed to fuel all new area apartment units. A look over the past 10 years shows dramatic change from the previous 20-plus years. The jobs compared to absorption ratio was 8.79 during the past decade meaning almost 562,735 new jobs would have had to have been created in order to lower apartment vacancy to zero. Relatively low changes in employment are one reason there is a large variance between time periods. Still, that does not account for the constant falling percentage of leased apartments.

Figure 5  
Changes in Employment and Rent



Source: REVAC, Inc.

## Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market



As mentioned previously, during the past decade, the country saw the expansion and collapse of a housing bubble. According to data collected by the Census Bureau, homeownership peaked in the second quarter of 2004 at 69.2 percent. Ten years prior, peak ownership was hovering at approximately 64 percent and, dating back to 1965, that percentage had never crossed the 66 percent mark. Even though the difference between 69 and 64 may only be five percentage points, this is a representation of 5 percent more Americans owning homes than ever before. Five percent of 110 million households is more than 5 million fewer tenants and a corresponding number of new homeowners. The massive increase in homeownership reduced the large portion of people who had once been new apartment renters.

The changes that occurred in the housing market after 2000 were enough to skew the data in Figure 1 all the way back to 1980. The first quarter of 2010 shows homeownership rates to be at 67.1 percent, which is the lowest since the first quarter of 2000. One could speculate that this would mean the percentage of new apartments leased would be similar to what they were in 2000. However, at

the end of 2009, only 88 percent of Houston's apartments were leased compared to 94 percent in 2000. So the question is: where are all of the homeowners living now if new apartment occupancy rates are not increasing? Popular press is replete with articles detailing an unusually high percentage of young adults living back at their parent's homes.

Many people who found themselves losing their homes also lost their jobs, leading to the inability to make mortgage payments. If these people remained out of work, simply making rent payments might be too much of a burden. This means people would have had to move in or double up with family or friends. Children who had moved on from their empty-nester parents were now claiming their old rooms back. The popular press has chronicled the large increase in multi-generational households. Friends who had enjoyed living on their own would have to search for roommates to lower their rent costs. In general, more people are living in fewer housing units than before. Additionally there are millions of people in the U.S. who have stopped making mortgage payments and have remained in their homes for long time



## Using Historical Employment Data to Forecast Absorption Rates and Rents in the Apartment Market

periods as lenders face extreme problems in the foreclosure process.

Another possibility for fewer people renting new apartments could be attributed to the increase in single-family homes for rent. Some people who wanted or needed to sell their home in this economy have found great difficulty in doing so. In an attempt to create some cash flow from a house that would otherwise be nothing but an expense, owners have opted to lease the house in hopes of attracting people who are not looking to buy. Others may be leasing their homes in hopes of riding out the current economic problems and selling it at a later date when their chance of profit is greater.

### CONCLUSION

This article presents a straightforward useable technique that practitioners in the field can use to help forecast

absorption of apartment units. The data indicate, in the sample market area of Houston, Texas, that for each eight-plus (8.79) jobs created; one additional new apartment unit becomes occupied. This information is especially useful when appraisers, land planners, consultants or others are attempting to estimate how long it will take for a single new apartment complex to reach stabilized occupancy; or how long it might take for an entire overbuilt market to reach equilibrium in terms of balance in demand and supply. While this article has focused on a practical straightforward technique that can be adopted by practitioners in the field; there is ripe opportunity for additional research investigating statistical linkages between market segments endogenous to real estate and variables exogenous to the real estate market; such as traffic counts, oil prices, interest rates, etc. ■

# Retail Space in the Future:

## How Technology has Changed the Way We Shop

BY CHRISTINE CARLYLE, AIA, AICP

### FROM MAIN STREET TO VIRTUAL SHOPPER

LIKE MANY MARKET SECTORS, THE USE OF TECHNOLOGY IS transforming the retail real estate models. For most of recent history the experience of shopping was a physical experience of going to a store to buy a product using tangible currency or other form of barter. Shopping required going to a real place that was identified with specific products. As the urban shopping district developed, especially in North America, this shopping experience evolved from an individual shop to an entire street or district, with inviting windows that lured one into visiting a favorite store, search for bargains, getting fashion advice and information about products. Prior to the development of the Internet, most shopping involved a physical experience to see and touch real products, make selections and ultimately taking home the purchase.

### AUTOMOTIVE RETAIL

The retail environment transformed through the mobility offered by the automobile and the evolution towards suburban development models. This transformation can be traced from the Main Street model of the 19th and early 20th centuries to a 1960s shopping center or commercial strip, to the rise of the regional mall in the 1970s and 80s, and now the ubiquitous arterial Big Box and upscale Life Style Centers of the 1990s and 2000s. Throughout this 90-year time period of suburban retail development, the urban city center has faced many challenges to keep pace with the changes in shopping habits for a variety of reasons: declining urban populations; perceptions of the city as unsafe; shops that were located far away from one another; perceptions among suburbanites that the city environment was "confusing;" and expensive and inconvenient parking. Looking

forward, the urban lifestyle preferences of Generation X and the Millennial Generation are reversing many of those trends and revitalizing urban retail zones.

### VIRTUAL REALITIES

Today we experience a steady flow of digital transformations affecting the way we live, with new smartphone applications, quick links, endless supplies of electronic coupons, and a constant barrage of email advertisements.

### About the Author



**Christine L. Carlyle, AIA, AICP**, principal and director of planning, Solomon Cordwell Buenz (SCB), Chicago, has more than 25 years of experience in planning, urban design and architecture, and is recognized for her work creating sustainable and livable communities. As a planner and architect, Carlyle is significantly impacting cities and communities across the globe through urban design, transit oriented development, form-based codes, land use policy and economic planning. Carlyle founded the SCB Planning Studio in 2002, and has directed a diverse portfolio of urban design and planning projects in the Midwest, nationally and internationally. Prior to joining SCB, she was director of planning at Farr Associates, designing sustainable communities, senior planner at Skidmore Owings and Merrill developing the Chicago Central Area Plan and Harvard University North Campus Framework Plan, and assistant director at the City of Dallas, Department of Planning and Development, where she directed urban design plans with a focus on downtown revitalization and implementation of the new DART transit system. Carlyle is an active member in the Chicago Central Area Committee, Urban Land Institute, Public Policy Committee and board member of Greater North Michigan Avenue Association, and co-chair of Planning & Advocacy Committee to develop the 2025 Plan, a 21st Century Vision for the Avenue and environs. She received her bachelor's degree in architecture from Carnegie Mellon University and a master's degree in architecture in Urban Design from Harvard University.

## Retail Space in the Future: How Technology has Changed the Way We Shop

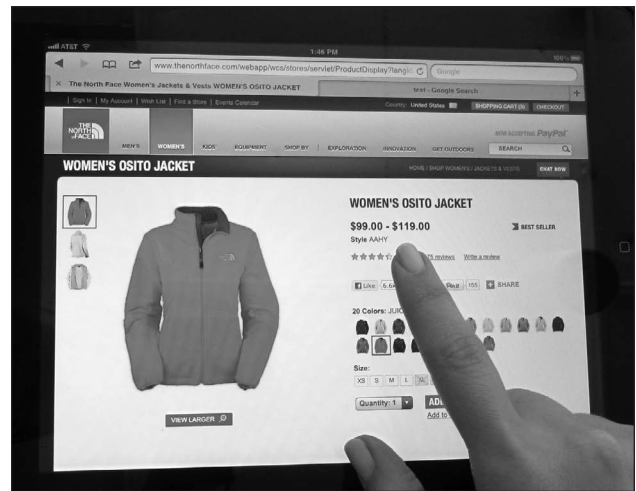
Advancements in barcodes, such as the new QR code developed for the smartphone, offer shoppers the opportunity to download product information from a shop window, price tag or magazine article.

A heavy reliance on technology is being integrated into all aspects of life, including how we choose to shop. Asking the question, “How does the virtual world impact the physical world?” can seem like an existential question. For some retail market sectors, the rise of technology is an existential issue and the kiss of death, eliminating a once-thriving business. Technology is transforming, and in some cases, overpowering many retail sectors—music, books, electronics, movies and entertainment, to name a few. A prime example is the fate of Border’s Bookstore, a once-thriving national book store chain that lost its market share overnight because of the competitive pricing of online Internet sales, digital books and e-readers.

### DEMAND VOLATILITY OF RETAIL

The speed and volatility of public opinion that technology can bring to the decision-making for a large segment of the population is a powerful, and in many cases, fickle force that is difficult to balance with the “brick and mortar” realities of real estate. The retailers fear the effects of these rapid changes, but so do municipalities and other governmental units that rely heavily on sales tax dollars for supporting services. A high profile vacant building or a proliferation of smaller scale empty storefronts can signal the economic decline of a community. The changeability of retail market forces creates winners and losers. Unfortunately, real estate is not fluid and able to address these changes quickly. Many communities have an oversupply of retail, especially in the suburbs where the retail is more auto-oriented. In our economically challenged times there is a tendency for communities to compete amongst themselves for the same limited supply of desired retailers. There is greater need to re-think and reposition these vacant properties and hopefully address and improve the quality of place-making in these environments.

Mobility and access literally drove an automobile-centered society, and in response, the retail environment adapted through physical form. Identity needed to be recognizable from the dashboard, with big signs and easy parking near the front door. The construction methods tended towards building cheaper buildings to create lower overhead in order to offer more savings to the savvy



shopper. Now, savvy shoppers can turn to the building-less world to compare price points, and purchase without leaving the comforts of home. If the act of shopping is just a transactional process of acquiring a specific commodity, then many retail environments are doomed and will be replaced by the UPS truck, as people change their purchasing habits and rely more heavily on the easy access of technology for goods and services.

### RETAIL CHOICES

The retail choice for the shopper is still the same as it always has been: it's a balance between “convenience and price” and “experience.” However, technology has added a new virtual dimension. This virtual option can be very competitive for the “convenience and price” criteria and a real threat to stores that rely on those values only. With more purchasing power moving towards Internet sales, communities need to think about what factors sustain their retailers and how much retail is sustainable. Do they have too much available retail space on the market? How can they reduce the amount of retail to match demand?

### THE RETAIL RELATIONSHIP TO PLACE

The ability to make shopping an experience with a heightened sense of place can offer a total package that builds loyalty to a place, a sense of authenticity and fulfillment of a basic human need for physical and social interaction. People also like to see, touch and interact with merchandise to form opinions and make purchasing decisions. This is especially true of apparel, where people want to make sure clothing fits, is well made and is fashionable. In Chicago, North Michigan Avenue is a prime example of place-making within an urban context to establish a heightened sense of experience. The

## Retail Space in the Future: How Technology has Changed the Way We Shop



continued success of the “Magnificent Mile” is based on many unique factors: it has a limited geography with continuous high-value investments and is located within a high density, mixed use district that offers a very large local base market. This urban market can offer a greater sense of place because it also offers civic design with landmark quality historic buildings, and Michigan Avenue is a wide tree-lined boulevard with compelling seasonal landscape displays. The gateways into the district are very dramatic, with DuSable Bridge over the Chicago River to the south and lakefront access to Oak Street Beach to the north. This sense of place also has invited cultural institutions to the area including museums, universities and medical facilities. These are all unique and rare urban assets that combine tourism with the retail experience.

Beyond the physical form of the retail district, the issue of place-making also requires the programming of inviting activities and events that support shopping and creating a heightened sense of experience. An individual store can hold an event such as fashion show, but to gain a greater synergy, it takes a district-wide event to have significant impact. This event planning requires a supporting merchant’s organization. In the case of North Michigan Avenue, there is a robust membership organization, the Greater North Michigan Association that orchestrates district-wide events such as the Magnificent Mile Lights Festival at the beginning of the Christmas shopping season or the In-Fashion Shopping Festival to introduce the new fall fashions. As a district or street builds a sense of place, it becomes the chosen location of civic events such as parades or protests. Chicago’s Michigan Avenue was the stage for Oprah Winfrey’s final show featuring the Black Eye Peas, and the filming location of one of the *Transformers* movies.

### RETAIL MARKETING

Technology can enhance the synergy between experience and place. The daily combining of promotional sales and target marketing are at the core of companies such as Groupon or Open Table. These special promotions require interaction from an online market population to make real-time decisions about their personal purchasing power. These new interactive apps or applications available via smartphone or websites can provide immediate access to special coupons or enticements to frequent particular restaurants or specific events or entertainment venues.

Retailers make decisions about place when they choose where to locate a store. They utilize highly sophisticated formulas to analyze demographic data about what makes a good place for their brand. Trends in these location decisions by national and international companies have similarities, because they have technological access to real-time sales information and who is purchasing. This data can be very influential in changing the retail mix of a place. For example, during the last decade, Michigan Avenue has seen a substantial increase in European retailers opening stores on the Avenue, initially Zara, H&M and more recently Top Shop and All Saints. In the process, Michigan Avenue transformed from an exclusive high-end fashion district to the preferred regional location for a flagship store. Technology is changing the role of the flagship store, to more of a showroom for online shopping. For major furniture firms, the flagship store is not only a showroom; it is also the support structure for the warehouse distribution center. Behind all these Internet sales, there is significant growth in the logistics companies delivering those online purchases and the endless supply of *amazon.com* packages.

### GROCERY TRANSFORMATIONS

These technological transformations and advancements are determining how we shop, and are affecting our more basic purchasing decisions—including with food. Many grocery stores are adding a greater sense of place and experience to their brand identity. The website for grocers, as with many businesses, can be the initial contact for a new customer. Whole Foods’ website is themed for well-being and includes a broad segment of lifestyle categories beyond the purchase of food products, such as recipes, nutritional tips and wellness programs, with a strong sustainability message woven throughout the site. With Peapod, the website *is* the store where you shop, and its truck delivers your groceries to your home.

## Retail Space in the Future: How Technology has Changed the Way We Shop

Mariano's Fresh Market, a subsidiary of the Roundy's grocery company, is a local Chicago grocer/restaurant hybrid model that is aimed at the individual with a busy lifestyle with no time to cook, but who wants quality home-cooked meals to eat-in or take out. These new grocery models work to create a sense of place and brand loyalty through the experience. They offer a unique dining experience with a lower cost model for food preparation, attracting a variety of people in search of a good meal, a casual dining atmosphere and immediate food availability.

### **BALANCING TECHNOLOGY AND RETAIL**

As our culture continues to engage this digital world, we

are seeing new ways our physical world is responding to the endless variations of technological interactions. A cycle is being created between online product research and online purchasing with the real stores and tangible places. Many stores are now seeing the website as an extension of the store, where the initial purchase is made online, returns take place at the physical store and a second purchase is made at the store.

Looking forward, the retail world is adapting and embracing technology in new and unpredictable ways. Convenience shopping is transforming into concepts around place-making, lifestyle and event programming to create a greater interactive experience. ■



# Mortgage Fraud: Current Trends and Issues

BY NICOLE FORBES STOWELL, J.D.; KATHERINE BARKER-CAGWIN, PH.D.; AND JAMES FELLOWS, PH.D.

## INTRODUCTION

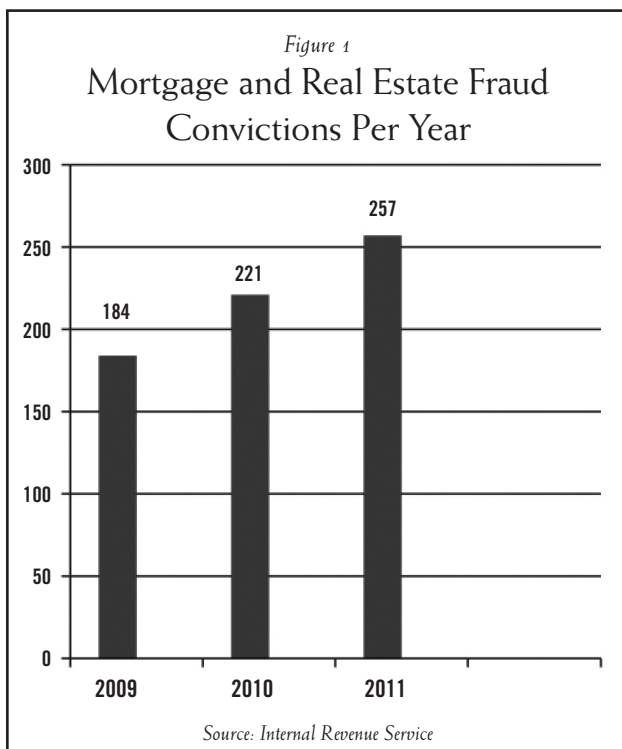
THE STATISTICS ON MORTGAGE FRAUD CONTINUE TO BE GRIM according to various official sources. Although mortgage fraud articles have appeared frequently in the popular press, many readers may not realize the extent of the fraud that is only beginning to be officially tracked by the United States government.

With distressed economic conditions and declining housing values, the environment continues to be attractive to mortgage fraud perpetrators. According to the

Internal Revenue Service (IRS), the number of mortgage and real estate fraud convictions increased by almost 40 percent from 2009 to 2011.<sup>1</sup> Figure 1 depicts this trend, using the most current statistical data from the IRS. In 2009 there were 184 fraud convictions, 221 convictions in 2010, and 257 in 2011. Similarly, the average prison term handed out by federal judges to defendants in these schemes increased from 35 months in 2009 to 42 months in 2011.

The Federal Bureau of Investigation (FBI) defines mortgage fraud as "...a material misstatement, misrepresentation, or omission relied on by an underwriter or lender to fund, purchase, or insure a loan."<sup>2</sup> At the end of 2010, the FBI had 3,129 pending mortgage fraud investigations—a 12 percent increase from 2009, and a 90 percent increase from 2008. According to the FBI, 71 percent of all pending FBI mortgage fraud investigations involved dollar losses of more than \$1 million. Moreover, the FBI estimates the current annual losses due to mortgage fraud are between \$4 billion and \$6 billion.<sup>3</sup> In response to the mortgage fraud threat, the FBI increased the number of agents investigating mortgage fraud cases from 120 special agents in 2007 to 325 special agents in 2011,<sup>4</sup> an increase of approximately 171 percent.

With high levels of unemployment, the real estate market still in a slump in many states, increasing delinquencies on mortgage loans, escalating foreclosures, and borrowers "underwater" on their mortgages, mortgage fraud schemes have become more prevalent and visible. The elevated level of mortgage fraud continues to affect conscientious homeowners, taxpayers, lending institutions and the national economy. New schemes are also



## Mortgage Fraud: Current Trends and Issues

### About the Authors



**Nicole Forbes Stowell, J.D., M.B.A.**, is an instructor of business law at the College of Business at the University of South Florida/St. Petersburg. She holds a bachelor's degree in business administration from the University of Florida, a master's degree in business administration

from Stetson University, and a juris doctor degree from Stetson University College of Law. Stowell's practice area focuses on real estate, estate planning and business associations. She is a member of the Florida Bar, the Real Property, Probate and Trust Section of the Florida Bar and the Academy of Legal Studies in Business.



**Katherine Barker-Cagwin** is an assistant professor of accounting, currently teaching accounting, auditing and fraud examination at the College of Business, Zayed University—Abu Dhabi campus, United Arab Emirates. She holds a bachelor's degree in accounting from the

State University of New York Empire State, a master's degree in accounting from Rochester Institute of Technology and a doctorate in accounting from the University of Arkansas, Fayetteville, Arkansas. She also is a certified public accountant and a certified fraud examiner, and previously worked for the former Arthur Andersen & Co. and Bausch & Lomb in Rochester, New York.



**James A. Fellows, Ph.D.**, is professor of accounting at the University of South Florida/St. Petersburg, where he teaches courses in taxation. Fellows earned his doctorate in economics from Louisiana State University and a master's degree in taxation from Florida International

University. He also holds a master's degree in economics from the University of Florida and a baccalaureate degree in liberal arts from the University of Miami. He is a licensed certified public accountant in the state of Florida and an active member in the Florida Institute of CPAs. Fellows is a frequent contributor to academic and professional journals, and currently serves as a contributing author to *The Real Estate Law Journal*, where he publishes a quarterly article on tax issues affecting real estate transactions.

emerging that threaten consumers, the safety and soundness of the financial institutions, and the national economy.

Our purpose in this article is to provide a background for real estate professionals specializing in non-commercial properties, who should be keenly aware of these schemes so that their clients are not the latest victims in this criminal epidemic. The article is organized as follows:

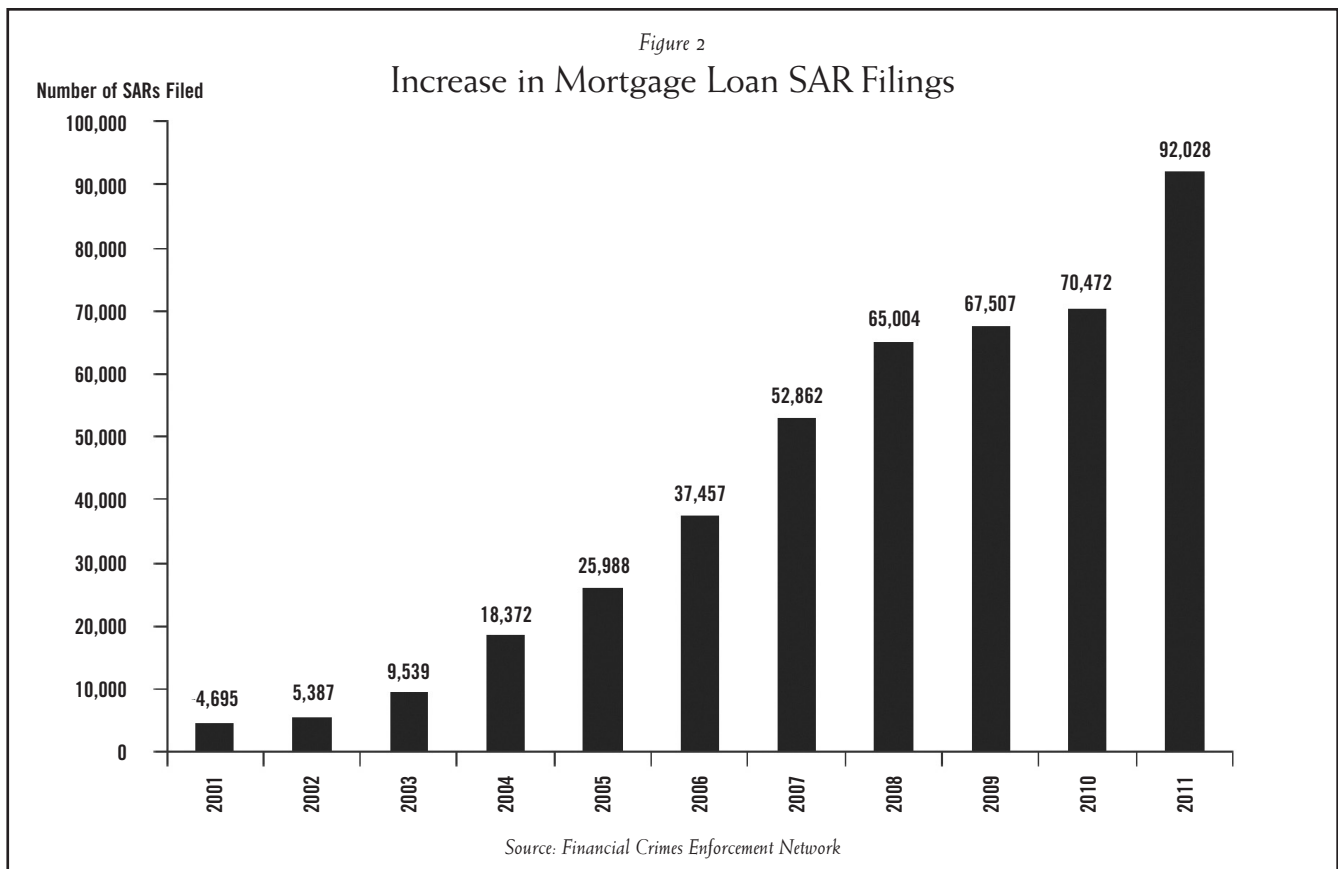
- (1) a presentation of the manner in which the FBI collects information on mortgage fraud;
- (2) a discussion of the typical perpetrators of mortgage fraud;
- (3) an analysis of current mortgage fraud schemes, including examples of various types of schemes; and
- (4) suggestions for preventative measures so that real estate professionals can protect themselves and their clients against being victimized by mortgage fraud.

### FBI DATA SOURCES ON MORTGAGE FRAUD

The FBI gathers data on mortgage fraud in three ways, the first of which is a suspicious activity report.<sup>5</sup> Suspicious activity reports (SARs) are filed by federally insured financial institutions. If a national bank detects or suspects a violation of federal law, then it must file an SAR with the U.S. Department of Treasury.<sup>6</sup> In one instance, an SAR filed by a financial institution provided information leading to an indictment and, ultimately, a conviction of approximately a dozen individuals and a mortgage origination company for perpetrating more than \$100 million in mortgage fraud over a four-year period.<sup>7</sup> The network of co-conspirators and accomplices would locate distressed residential real estate and, through fictitious sales of the properties, would cause the banks to front millions of dollars to finance the purchase of the properties. In one transaction, the perpetrators created an appraisal report for a duplex with a stated value of almost \$500,000 when the property was nothing more than a vacant lot. A false appraisal, along with an altered certificate of occupancy for a two-family structure, was used to close the loan with the bank, resulting in fraudulently obtained proceeds of almost \$500,000.

According to the Financial Crimes Enforcement Network (FinCEN), a bureau under the Department of Treasury, financial institutions submitted 92,028 mortgage loan fraud SARs in 2011, a 31 percent increase from the 70,472 submitted in 2010.<sup>8</sup> In the first quarter of 2012, 17,651

## Mortgage Fraud: Current Trends and Issues



mortgage loan fraud SARs have been submitted.<sup>9</sup> Figure 2 illustrates this increase in mortgage loan SAR filings.<sup>10</sup>

#### INCREASE IN MORTGAGE LOAN SAR FILINGS

In March 2010, the U.S. Department of Justice, in conjunction with the FBI, announced a new mortgage fraud takedown referred to as “Operation Stolen Dreams.”<sup>11</sup> This operation lasted from March 1, 2010 through June 15, 2010. Operation Stolen Dreams targeted mortgage fraudsters throughout the U.S. and was the largest collective enforcement ever brought to bear in combating mortgage fraud. During this brief time period, the program involved action against 1,517 criminal defendants and included 525 arrests, 336 convictions and 191 civil enforcement actions.<sup>12</sup>

For example, Operation Stolen Dreams resulted in the arrest of two people in Miami, who targeted the Haitian-American community by claiming they would assist them with immigration and housing issues.<sup>13</sup> Instead, they used the victims’ personal information to produce false documents to obtain mortgage loans.<sup>14</sup> The FBI claims that the defendants were responsible for more than \$2.3 billion in losses.<sup>15</sup>

The second way the FBI compiles data on mortgage fraud is through reports received from the Department of Housing and Urban Development, Office of the Inspector General.<sup>16</sup> Lastly, the FBI receives complaints filed by the public and mortgage industry at large.<sup>17</sup>

#### TYPICAL PERPETRATORS OF MORTGAGE FRAUD

According to the FBI, mortgage fraud is perpetrated in two distinct ways: (1) fraud in order to obtain housing; and (2) fraud strictly for profit.<sup>18</sup> The first type of mortgage fraud occurs when there are illegal actions by a borrower, such as misrepresenting income or employment history to qualify for a mortgage loan. The second type of mortgage fraud (i.e., fraud for profit), occurs when industry insiders use their knowledge or authority to commit or aid in the fraud in order to obtain ill-gotten gains.

Also, according to the FBI, a high percentage of mortgage fraud involves collusion by industry insiders, such as bank officers, appraisers, mortgage brokers, attorneys, accountants, notaries and other professionals in the industry.<sup>19</sup> Mortgage professionals commit mortgage fraud when the professional:

## Mortgage Fraud: Current Trends and Issues

- falsely inflates the value of the property;
- knowingly misstates false income for borrowers;
- inflates the appraisal values; or
- makes loans supported by fictitious property.

Throughout this article we describe various fraud schemes that have actually occurred and are described in various government documents and press releases. We have chosen not to identify the individuals involved, but shall simply call them “Fraudster-A,” “Fraudster-B,” “Fraudster-X,” “Fraudster-Y” and so on.

As an example of both types of mortgage fraud in one case, a former Arizona real estate agent, Fraudster-A, was sentenced to 51 months in prison for conspiracy to commit wire fraud as part of a mortgage fraud scheme.<sup>20</sup> This individual acknowledged in court documents that as a principal of a real estate firm that has since collapsed, he coordinated illegal “cash back” mortgage sales on homes. In a two-year period, Fraudster-A and others purchased properties at or below market value and then sold the homes based on inflated appraisals. Some of the profits were used to provide kickbacks to the buyers with, of course, no disclosure to the mortgage lenders. These schemers would then pocket the difference. Many of these buyers made false statements on the income, employment and assets sections of the loan applications, because they would have otherwise been unqualified for the mortgage loans. A total of 49 properties were involved in the scheme, resulting in nearly a \$10 million loss to mortgage lenders. Fraudster-A admitted that he and his fellow conspirators pocketed almost \$2.5 million in the deals.

### CURRENT MORTGAGE FRAUD SCHEMES

In addition to the “cash back” scheme discussed above, other current mortgage fraud schemes include, but are not limited to:

- short sale;
- foreclosure rescue;
- builder bailout;
- straw buyers; and
- loan origination schemes.

### Short Sale Schemes

Vulnerable to short sale schemes are homeowners who are “underwater” or are in a negative equity position. In March 2011, CoreLogic, a financial data service firm, released data showing that Nevada has the highest percentage of homeowners with negative equity at 65 percent, followed by Arizona at 51 percent, Florida at 47

percent and California at 32 percent.<sup>21</sup> At 118 percent, Nevada had the highest average loan-to-value ratios for properties with a mortgage, followed by Arizona at 95 percent, Florida at 91 percent, Michigan at 84 percent and Georgia at 81 percent.<sup>22</sup>

Simply stated, a short sale occurs when the borrower cannot make the mortgage payments on the home, so the lender agrees to a sale of the property for less than the outstanding mortgage balance. The lender may forgive the deficiency balance, depending on the settlement and the state where the property is located. Sometimes the borrower is truly having financial difficulty and the short sale is not fraudulent.

However, in a short sale fraud scheme, the scammer uses a third party, known as a straw buyer, to purchase and finance the residence from the lender. In these cases the scammer will present the lender with false appraisal documents that show the residence is worth less than its true market value. Ultimately, the straw buyer defaults on the loan obtained to purchase the residence and the scammer swoops in and purchases the residence at a deep discount. The residence is then sold for its higher and true fair market value. The foregoing example is often termed “short sale flopping,” and in many cases occurs when real estate agents hide—from the lender selling the property—their relationships with the buyer. Often the agents will not disclose better offers from legitimate buyers.

An example of an actual case of “short sale flopping” is exemplified by two real estate agents in Connecticut, Fraudster-B and Fraudster-C, who both pled guilty in 2010 to fraud stemming from their involvement in such schemes.<sup>23</sup> In one instance Fraudster-B was the listing agent on a property being sold by Regions Bank in a short sale. One outside buyer presented Fraudster-B with an offer of \$132,500. However, Fraudster-B, working with Fraudster-C, falsely represented to Regions Bank that the highest offer to purchase the property was only \$102,375. This bid came from an entity controlled by Fraudster-C. The bank subsequently sold the property to the controlled entity at the lower price. Fraudsters B and C then resold the property for \$132,500 to the outside bidder and pocketed the difference as ill-gained profit.

### Foreclosure Rescue Schemes

Homeowners who are “underwater” are also susceptible to foreclosure rescue schemes. As evidenced by Figure 3 below, which uses data from the Federal Trade Commission (FTC), foreclosure rates of residential property have been

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significantly increasing over the past six years.<sup>24</sup> With the skyrocketing number of foreclosures taking place, foreclosure rescue schemes are also proliferating.

In a foreclosure rescue scam, con artists approach homeowners who have fallen behind on their mortgage payments and convince the homeowner to transfer their ownership interest in the property. The scammers tell the homeowner to sign over the deed to the scammer to keep their home out of foreclosure. The scammer convinces the homeowner that by making “lease” payments to the scammer, the homeowner will be able to buy back the home after a certain amount of time has passed.

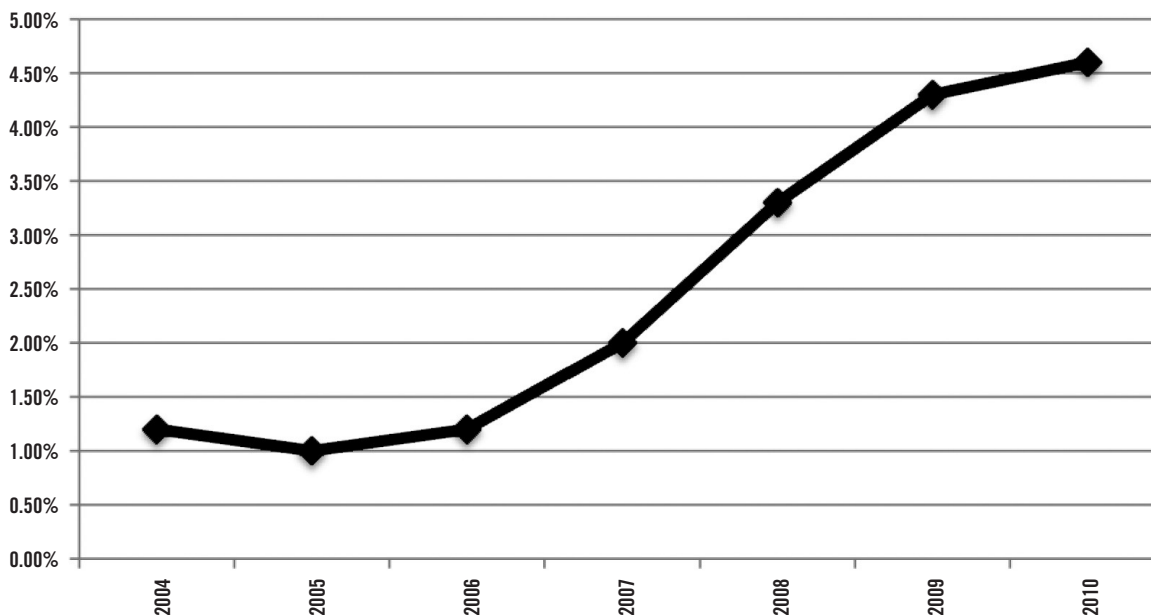
In the interim the scammer is falsely claiming to be making the mortgage payments to the lender. The reality is that once the homeowner transfers ownership (via deed) of the residence, the con artist is under no obligation to sell the property back to the homeowner and could even begin eviction proceedings against the homeowner.

Another variation of this scheme involves a con artist who contacts the defaulting homeowner, and then offers to find a lender who will refinance the delinquent mortgage through a “foreclosure rescue” loan. The

scammer presents the homeowner with “loan documentation” to sign as part of the loan. Counting on the homeowner’s not reading the fraudulent documentation, the scammer has the homeowner unwittingly execute a deed transferring ownership of the residence. Once this fraudulent paperwork has been executed the homeowner innocently believes that the mortgage delinquency has been resolved. Imagine the homeowner’s shock when months (or even years) later, believing the rescue loan was in place, the notice arrives that the homeowner no longer owns the property, all the while remaining liable on the original mortgage.

As one actual example of this scheme, the FTC reached a settlement in December 2011 with six California defendants.<sup>25</sup> The settlement required them to pay back ill-gotten gains and permanently banned them from selling any mortgage assistance or debt relief products. According to the FTC, the six defendants touted a program that would supposedly reduce mortgage payments for “underwater” homeowners as part of the federal government’s stimulus program, even though the defendants had no affiliation with the federal government.

Figure 3  
Foreclosure Rates



Source: Federal Trade Commission



## Mortgage Fraud: Current Trends and Issues

The defendants charged up to \$4,250 per client and promised to reduce the mortgage payments, interest rates and even principal loan amounts. The FTC alleged that once homeowners paid the fee, they received no help in reducing their mortgage, and the defendants did not respond to emails or phone calls. Rather, the defendants had disconnected their phones and changed the names of their businesses while continuing to make promises and take money from new homeowners.

### Straw Buyer Schemes

The use of straw buyers to hide the identity of the true beneficiary of the loan proceeds is another frequent type of fraud. A straw buyer, who actually takes temporary formal title to the property, is used by a fraudster who wishes to hide his identity, and his underlying fraudulent scheme, from the lender. The straw buyer only acquires ownership of the property for a brief period of time, until the fraudster is able to complete his scheme.

The fraudster recruits a person with good credit (a straw buyer) to acquire the loan and obtain formal title to the property. The straw buyer is generally paid a fee for lending their good credit to this scheme. In addition to recruiting a straw buyer the fraudster will also provide false loan documents to the lender on behalf of the straw buyer, which show an appraised value of the property in excess of its true market value. The straw buyer may participate in the preparation of the fraudulent documents but this is not always the case. The lender will then make a loan to the straw buyer based on this inflated property value. In return for his fee, the straw buyer will now transfer the loan proceeds and formal ownership of the property to the real buyer (the fraudster). As part of this scheme, the real buyer (the fraudster) pockets the loan proceeds and never makes any payments on the mortgage, sending it into default and foreclosure in no time. The lender is then “stuck” with the property, whose market value is typically well below the mortgage balance. This type of scheme is especially effective if the mortgage is a non-recourse loan in which the lender has no recourse to anyone’s other assets.

One individual, Fraudster-D, a former Missouri real estate agent, was sentenced to 20 months in prison and ordered to pay restitution in the amount of \$5,634,747 for her role in a straw buyer mortgage fraud conspiracy.<sup>26</sup> According to court documents, Fraudster-D devised the mortgage fraud scheme along with two mortgage loan officers and 15 straw buyers to purchase homes at inflated

prices. Loans were extended to buyers for more than the actual sale price, based on false information provided to the mortgage lenders, enabling the buyers to keep the extra loan proceeds without the lenders’ knowledge. To conceal the kickbacks, the conspirators created shell companies that submitted false invoices to title companies. For the sale of each house, the buyers received kickbacks of about \$100,000. In the total course of the scheme, lenders approved loans for 25 homes totaling more than \$12.6 million. From this amount, buyers received more than \$2.3 million without the lenders’ knowledge and Fraudster-D received “commissions” and other payments totaling \$405,197.

Straw buyer activities often are used when a family member purchases a home for the true homeowner (another family member) who would not otherwise qualify for a mortgage loan. For example, assume a recent university graduate wants to purchase her first home. Because of her student loans, an entry level work position and very little cash for a down payment, she does not qualify for the mortgage loan. To help this new graduate, her father obtains the loan, believing that she will make the monthly mortgage payments. She moves into the house, but after several months cannot make the mortgage payments. The lender contacts the straw buyer (the father) to discover that the straw buyer does not live in the home and has no intention of making the payments his daughter was supposed to make. At this point, the lender must foreclose on the property.

### Builder Bailout Schemes

Yet another type of mortgage fraud includes builder bailout fraud. Because of the saturated market of unsold new homes and units in condominium complexes, builders are experiencing difficulties in selling their inventory. As builders feel the pressure to pay outstanding construction loans, they sometimes resort to fraudulent methods. The FBI gives an example of a builder offering excessive incentives to cash-poor buyers of the new homes and then not disclosing the incentives to the lender.<sup>27</sup> These incentives include no money down or paying closing costs for the buyer. In these cases the lender is hoodwinked into financing a larger percentage of the loan than they originally believed, often leading to high loan-to-value ratios, perhaps exceeding 100 percent.

For example, the builder might sell a house to a buyer for \$300,000, when its true market value is \$250,000. The buyer is also asked to make a \$50,000 down payment to

## Mortgage Fraud: Current Trends and Issues

the builder. The builder has already agreed with the buyer to forgive this \$50,000 down payment, which of course is obviously not known to the lender. The lender will then fund the loan at the remaining \$250,000, believing that the buyer has paid the builder the \$50,000 down payment so that there is already equity of \$50,000 in the property. The builder takes the \$250,000, which was the agreed sales price with the buyer, and then “forgives” the buyer’s \$50,000 down payment. The effect here is that the lender has unwittingly financed 100 percent of the \$250,000 value of the home, which was never the lender’s intention. Without the fraudulent scheme, the loan to the buyer would not have occurred.

The following cites an actual case of this fraudulent activity: On April 15, 2012, Fraudster-X was sentenced to 35 months in prison for his part in a builder bailout scheme. Fraudster-X, a real estate developer and also an attorney and CPA, had built up a substantial inventory of homes that were not selling in the depressed real estate market.<sup>28</sup> He was approached by another individual, Fraudster-Y, who, through the use of straw buyers, offered to buy the homes at \$40,000 to \$60,000 above the listed price. Fraudster-Y created fraudulent documents that enabled these straw buyers to qualify for 100 percent financing of the listed prices. The total financing for 62 homes was approximately \$21 million. After receiving these funds, Fraudster-X then wrote checks totaling \$2.5 million back to Fraudster-Y, who pocketed most of this after paying a commission to his straw buyers. These price rebates from Fraudster-X to Fraudster-Y were not disclosed to the lenders. Most of the homes resulted in foreclosure and lenders lost several million dollars. For his part in the scheme, as well as many others, Fraudster-Y also received a lengthy prison sentence.

Another example of the builder bailout fraud takes place when the builder lures a real estate investor by offering property management services for rental property, along with an agreement that the builder will absorb any negative cash flow from the property for a certain period of time. Once the investor has purchased the property, the builder reneges on his promise to manage the property, or even his obligation to finance any negative cash flow from the property. Typically in this situation the builder has also overstated the income potential of the property.<sup>29</sup>

### Mortgage Loan Origination Schemes

Loan origination schemes involve methods such as falsifying a borrower’s financial information, using stolen

identities, witnessing false documents, flipping property with phantom rehabilitation, employing fictitious assets, and fabricating payroll documents. If a borrower’s income, assets, liabilities and employment are falsified to qualify the borrower for a mortgage loan, this is mortgage fraud. The borrower who supplies fictitious or false bank statements, W-2 forms or tax returns is committing mortgage fraud.

In one case Fraudster-Z, the former CEO of a large mortgage origination firm, was sentenced to 63 months in prison, three years’ supervised release, and ordered to pay \$11,994,000 in restitution in connection with an \$11 million fraudulent loan scheme.<sup>30</sup> According to court documents, the mortgage firm was in the business of originating residential home loans. The mortgage firm assisted borrowers in putting together mortgage applications and qualifying the borrowers for home mortgages.

Although the mortgage firm would originate the mortgage loans, after origination the firm would re-sell the loans to another financial institution in the secondary mortgage marketplace. Fraudster-Z admitted he prepared and sold fraudulent mortgage loans from 2008 through September 2009. After the mortgage firm had originated a mortgage loan and sold that loan to a third-party lender, Fraudster-Z would create a subsequent set of fraudulent loan documents for the same property. He would then sell the second set of falsified loan documents to another third-party lender, even though the actual mortgage loan for that property already had been sold. As a result of these bogus loans, Fraudster-Z received over \$11 million in illicit proceeds. Fraudster-Z used these illicit proceeds to support his lavish lifestyle which included his multi-million-dollar home, exotic travel and exclusive seating at a major professional sports arena.

### PREVENTATIVE MEASURES FOR PROFESSIONALS

Practitioners can protect themselves and their clients against mortgage fraud and help stop this epidemic by being aware of the warning signs. Real estate professionals should document transactions and keep those records in accordance with existing office documentation retention and destruction policies.

If a buyer is encouraged to falsify a mortgage application or sign a blank loan application, these are mortgage fraud indicators. When a borrower inflates income on a loan application in order to qualify for a loan beyond his or her financial means, this lie is illegal. To avoid being caught in this trap, the lender should always verify

## Mortgage Fraud: Current Trends and Issues

employment and income and document the findings thoroughly.

Another tip in protecting yourself and your clients from mortgage fraud is to get referrals for professionals such as real estate agents and lenders. Both realtors and lenders have professional associations and organizations that are available to share best practices to guard against mortgage fraud.

The National Association of REALTORS® ([www.realtor.org](http://www.realtor.org))<sup>31</sup> lists many professional institutes, societies and councils. Some examples are:

- The Council of Real Estate Brokerage Managers® (CRB) ([www.crb.com](http://www.crb.com))<sup>32</sup> offers “educational, informational and networking resources ...” to certified real estate brokers;
- The Counselors of Real Estate® (CRE) ([www.cre.org](http://www.cre.org))<sup>33</sup> a professional organization that serves as an information resource to real estate professionals and facilitates networking and the sharing of common concerns;
- The Women’s Council of REALTORS® (WCR) ([www.wcr.org](http://www.wcr.org))<sup>34</sup> which connects more than 18,000 real estate professionals; and
- The American Bankers Association® (ABA) ([www.aba.com](http://www.aba.com))<sup>35</sup> also offers many resources, including ABA Professional Networking Sites ([www.aba.com/Members/Pages/ProfSites.aspx](http://www.aba.com/Members/Pages/ProfSites.aspx))<sup>36</sup> designed to provide current mortgage fraud information and exchange information of current interest to ABA members.

The exclusive use of only one real estate appraiser should also raise suspicions. Appraisal fraud is categorized as a fraud for profit scheme by the FBI.<sup>37</sup> In this scheme, the real estate appraiser is in collusion with the borrower. Often, the real estate appraiser will inflate the property value for the borrower who will then pay off the appraiser at the closing of the loan. The dishonest appraiser can also act in collusion with a mortgage broker by providing an inflated value of the real property.

Fraud also occurs when sellers lie about the value of the improvements made to the property, loan documentation is altered, or kickbacks are paid to the buyers, brokers, appraisers or title companies. A fraudulent down payment made through fictitious, falsified, forged or altered documents supplied to the lender to meet the

loan-to-value requirements is a fraudulent scheme. Suspicious deeds, such as the use of several quit-claim deeds conveying property to inactive corporations or limited liability companies, should be scrutinized to determine if mortgage fraud might be taking place. A check of both the county public records, as well as the website of the state’s division of corporations for the status of business entities is one method of fighting mortgage fraud. The buyer/borrower who provides his or her own real estate comparables, offers a bribe to the real estate appraiser, or points out defects in the property to the appraiser should raise concern as to the possibility of short sale fraud occurring.

The FBI provides several additional mortgage fraud indicators, all of which should aid the real estate professional in suspecting a fraudulent scheme is in the works. Some additional “red flags” are:

- increased commissions and bonuses paid to mortgage brokers and real estate appraisers at closing or outside of closing;
- supporting loan documentation in which an individual is requested to sign blank forms; and
- using investors to flip property for a fixed percentage.<sup>38</sup>

### CONCLUSION

There are as many mortgage fraud schemes as there are perpetrators determined to find loopholes in the lending industry and the legal system. These schemes seem to be particularly resilient and appear to adapt to revisions in lending practices. Current homeowners, future homeowners, real estate investors and other professionals should be aware of the types of mortgage fraud in order to protect themselves from being caught up in a scheme. As mortgage fraud continues to reach new heights, everyone (e.g., lending institutions, professionals, communities and consumers) can help detect and prevent fraud by understanding the many faces of fraud, being alert to the red flags and reporting suspicious activity to the appropriate governmental agency.

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# The Case for the Return of CMBS

BY THOMAS A. FINK, CRE

## OVERVIEW

THE UNITED STATES AND GLOBAL COMMERCIAL MORTGAGE-backed securities (CMBS) markets experienced sharp declines in issuance tied to the 2007–2008 financial crisis and have been slow to recover. As near-term uncertainties have continued to keep current issuance muted, it is prudent to examine the long-term health and prospects for CMBS. The author's view is that, after 18 months of continued turbulence, the market is highly likely to recover. The U.S. CMBS market should reset itself to a base outstanding balance of \$550–\$600 billion before resuming its growth, with new issuance recovering to approximately \$100 billion per year. See Figure 1.

Commercial real estate is a long-term investment that is best funded with fixed-rate debt of similar duration. CMBS is a viable and financially sound source of such debt for the commercial real estate industry. The outlook for issuance levels for 2013 through 2017 is driven by a number of factors:

## COMMERCIAL REAL ESTATE ENVIRONMENT

- Improved property performance will lead to more real estate transactions, increasing the demand for capital;<sup>1</sup>
- Up to \$2 trillion of debt is scheduled to mature over the next five years;<sup>2</sup>
- Commercial real estate property sales activity has been recovering.<sup>3</sup>

The improvements tracked to date, and the forecasts of continued improvement, are closely tied to continued recovery in the overall economy. A downturn in economic recovery leading to another recession could significantly reduce the level of investment property sales. The amount of commercial real estate debt sched-

uled to mature must be restructured or refinanced. The balance coming due exceeds the combined multi-family and commercial real estate mortgages financed during the peak of the last real estate cycle, from 2003–2007, when CMBS issuance accounted for almost one-third of the capital.<sup>4</sup>

## About the Author



**Thomas A. Fink, CRE**, is a senior vice president and managing director at Trepp, LLC, New York City, a provider of commercial mortgage-backed securities (CMBS) and commercial mortgage information, analytics and technology to the securities and investment management industries.

At Trepp, Fink is responsible for business development, which includes identifying and building strategic relationships with third parties. He works with Trepp's major clients including investors, issuers, rating agencies and regulators. Fink has more than 35 years' experience in the financial markets, in diverse areas such as CMBS, leasing, economic development and tax-exempt securities. Prior to joining Trepp, he served as the CFO of the North American Development Bank. He also was a senior banker at several securities firms, including Blyth Eastman Dillon, Bear Stearns and Chemical Securities.

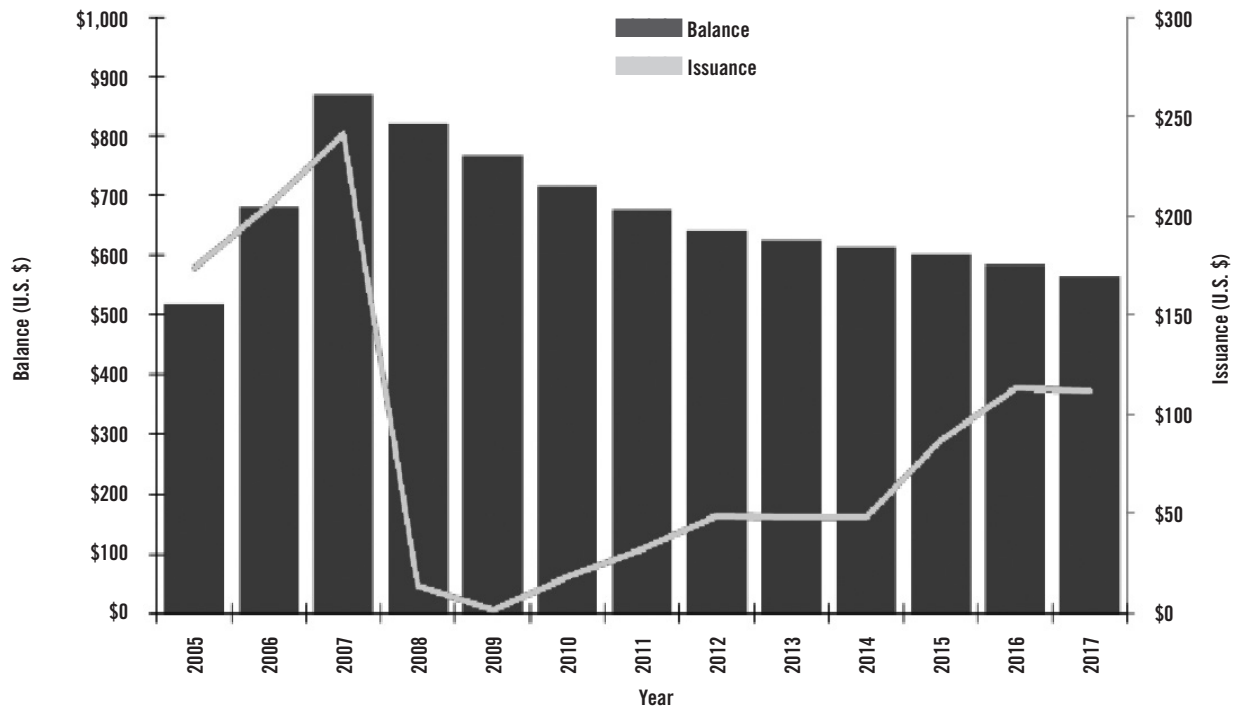
Fink has served on The Mortgage Industry Standards Maintenance Organization Board of Directors since 2009. He also serves on various committees for the Commercial Real Estate Finance Council, including the Global Initiatives Committee and the High Yield Debt and Investment Forum. He is a regular participant and speaker at industry conferences, particularly addressing the needs of reporting and transparency in the capital markets.

Fink earned a bachelor's degree in foreign service from the Edmund A. Walsh School of Foreign Service at Georgetown University, and a juris doctor degree from Seton Hall University.



## The Case for the Return of CMBS

Figure 1  
North American CMBS Outstanding and Issuance



Source: Trepp, LLC

#### LENDING ENVIRONMENT

Traditional portfolio lenders, primarily banks and insurance companies, cannot meet the entire needs of the market:

- Portfolio lenders can finance about \$1 trillion of the \$2 trillion maturing;<sup>5</sup>
- Large commercial banks prefer short-term, floating rate loans. CMBS provides fixed-rate, long-term loans;<sup>6</sup>
- Community banks are under pressure to maintain higher capital levels;<sup>7</sup>
- Insurance companies want Class A properties in Class A markets with low loan-to-value ratios (LTVs);<sup>8</sup>
- Government sponsored enterprises (GSEs, e.g., Fannie Mae, Freddie Mac) must use capital markets to finance loans or reduce their activity; either outcome increases issuance of CMBS.

#### INVESTOR BEHAVIOR

- Insurance companies want AAA CMBS because of the long average life and higher yield;
- Money managers will use CMBS to capture yields higher than similarly rated corporate bonds;
- Hedge funds buy CMBS for higher yields (10 percent-

plus) and additional return;

- Exchange-traded funds (ETFs) referencing CMBS opens the market to new categories of investors.

Notwithstanding current short-term impediments, a strong case exists for long-term issuance to return to sustainable levels similar to those from the 2004–2005 time frame.<sup>9</sup> This article will expand on the above factors expected to drive this growth.

#### INTRODUCTION

Commercial mortgage-backed securities (CMBS) are bonds whose payments stem from a loan or a pool of loans on commercial real estate. Commercial mortgage-backed securitization is the process by which a loan, or more commonly a group or pool of loans, is packaged into a deal structure, and CMBS are created and issued. These bonds are “tranching,” or split into different risk levels, thereby enabling investors to buy varying levels of risk. CMBS are an important source of capital for commercial real estate, and complement other sources such as portfolio (balance sheet) loans from insurance companies and banks, and mortgage-backed securities issued by government agencies.

## The Case for the Return of CMBS

The onset of the global financial crisis in July 2007 led to an immediate and sharp decline in the level of CMBS issuance in both the U.S. and global markets. Recovery outside of North America continues to be extremely slow, with only two deals sold to the market in Europe since 2009.

As shown in Figure 1, in the U.S. non-agency CMBS vanished from the market for a period of almost 18 months. Issuance restarted at a trickle in 2009, and returned to a level of \$30 billion in 2011. Near-term impediments have continued to keep current issuance muted, but as of the end of September 2012, issuance was at \$25 billion, or 80 percent of the 2011 level.<sup>10</sup>

While there remains debate as to whether CMBS issuance will ever return to its historical high (\$200 billion-plus per year) levels, the market will indeed return to strong levels of issuance over the next five years. As noted in the Overview above, commercial real estate is a long-term investment that is best funded with long-term fixed-rate debt. CMBS are a viable and financially sound source of such debt, and represent a necessary part of the overall landscape of capital sources, even in the view of competing balance sheet lenders.<sup>11</sup>

Figure 2

### CMBS Volume Predictions for 2012

	U.S. (\$Bil.)	Non-U.S. (\$Bil.)	Total (\$Bil.)
Manus Clancy, Trepp	\$25	\$2	\$27
Alan Todd, Bank of America	28	2	30
Sally Gordon, BlackRock	31	3	34
Darrell Wheeler, Amherst Securities	33	2	35
Jeffrey Berenbaum, Citigroup	33	3	36
Brian Lancaster, RBS	35	2	37
Larry Brown, Archetype Mortgage	34	4	38
Tim Gallagher, Morgan Stanley	36	2	38
P. Sheridan Schechner, Barclays	40	4	44
Lisa Pendergast, Jefferies & Co.	40	2	42
Daniel Bennett, Goldman Sachs	40	5	45
Anthony Orso, Cantor Fitzgerald	65	7	72
John Beaman, AREA Property	60	15	75
<b>Average Prediction for 2012</b>	<b>38</b>	<b>4</b>	<b>42</b>
<b>Actual 2011 Volume</b>	<b>33</b>	<b>3</b>	<b>36</b>

Source: *Commercial Mortgage Alert*, Jan. 6, 2012

At the beginning of 2012, *Commercial Mortgage Alert* surveyed the CMBS industry, and estimates for 2012 global issuance ranged from \$27–\$75 billion. See Figure 2. As stated above, through the end of the third quarter, issuance was at \$25 billion, and many in the industry are

forecasting increased activity in the second half of the year with total issuance passing \$40 billion. Further, in testimony before the U.S. Congress on July 10, 2012, Paul Vanderslice, president of the Commercial Real Estate Finance Council (CREFC), stated “the annual level of CMBS issuance required to provide healthy liquidity levels to the commercial real estate marketplace would be \$50–\$100 billion.”<sup>12</sup>

The author used the industry forecast and estimates of the timing of future refinancing to prepare an issuance forecast for 2013–2017. The forecast is driven by a variety of factors:

- the commercial real estate environment;
- the lending environment;
- investor behavior; and
- conduit issuer behavior.

### COMMERCIAL REAL ESTATE ENVIRONMENT

Across the board, industry research is pointing to a higher level of commercial real estate transactions over the next five years. The trend of commercial property sales, as tracked by Real Capital Analytics (RCA), is up significantly from the depths of the market following 2007. See Figure 3.

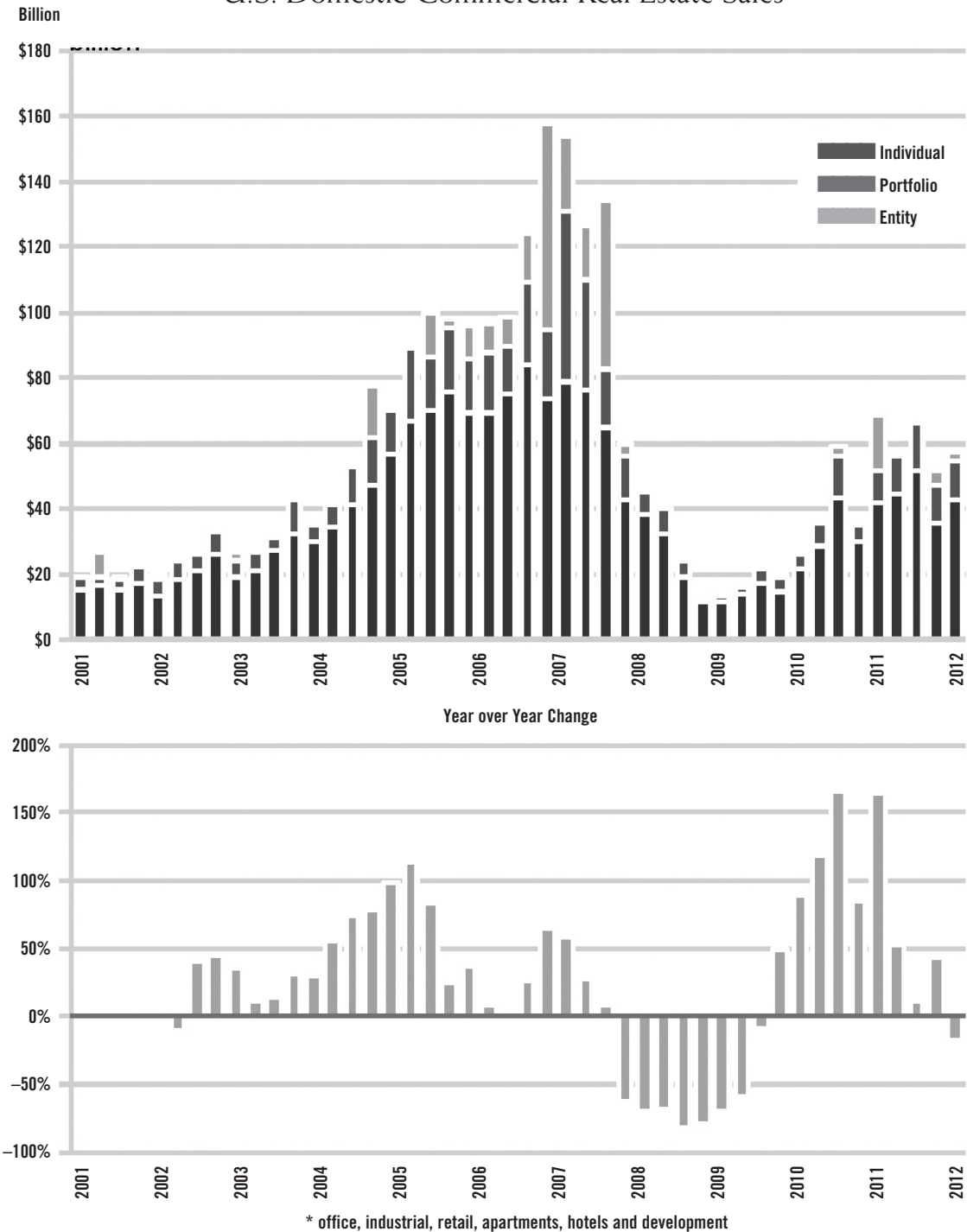
The Urban Land Institute (ULI) Consensus Forecast for September 2012 is for 2012 property sales to be on a par with 2011, and increase in 2013 and 2014.<sup>13</sup> The ULI Consensus Forecast is based on a survey of 39 leading real estate economists and analysts from across the U.S. and reflects the median forecast for 26 economic indicators. These include property transaction volumes; issuance of CMBS; property investment returns; and vacancy rates and rents for several property sectors. The ULI forecast concludes that:

- Commercial property transaction volume is expected to increase by nearly 21 percent through 2014;
- Issuance of CMBS is expected to more than double;
- Institutional real estate assets and real estate investment trusts (REITs) are expected to provide returns ranging from 8.5–11 percent annually;
- Vacancy rates are expected to moderately decline for office, retail and industrial properties, and remain stable at low levels for apartments, while hotel occupancy rates are expected to improve;
- Rents are expected to increase for the four major property types in 2013, ranging from 1.2 percent for retail up to 4.8 percent for apartments.

INSIDER'S PERSPECTIVE  
The Case for the Return of CMBS

Figure 3

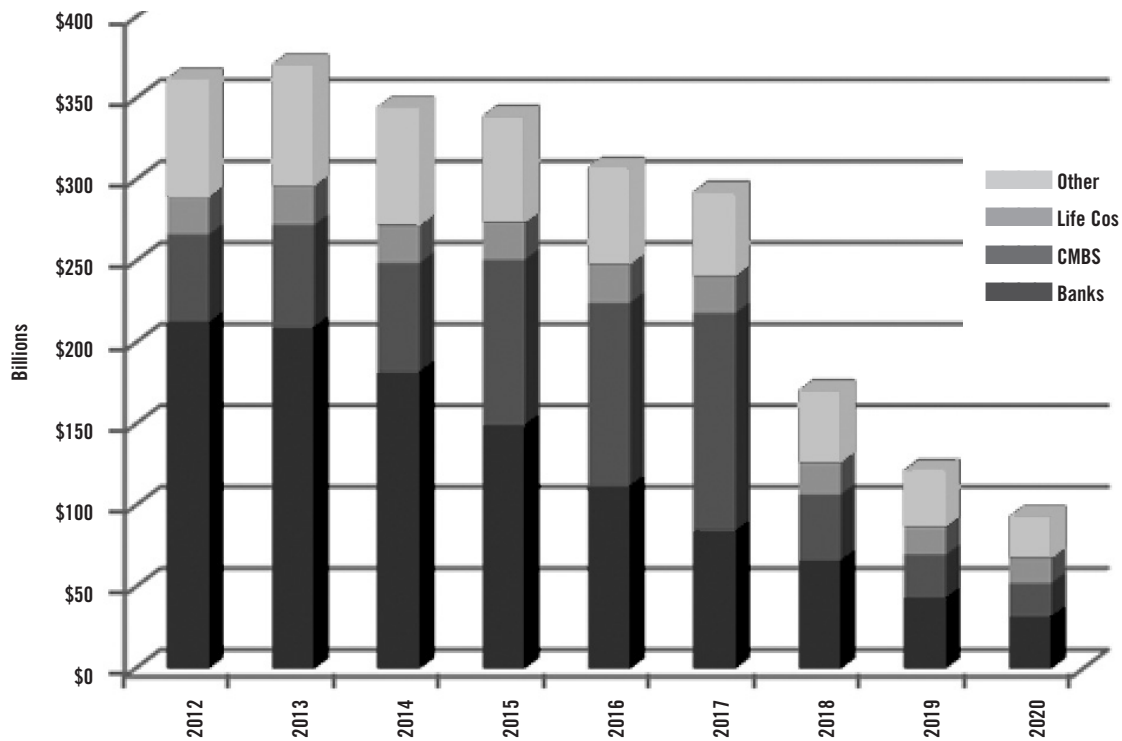
U.S. Domestic Commercial Real Estate Sales



Source: Real Capital Analytics, July 2012

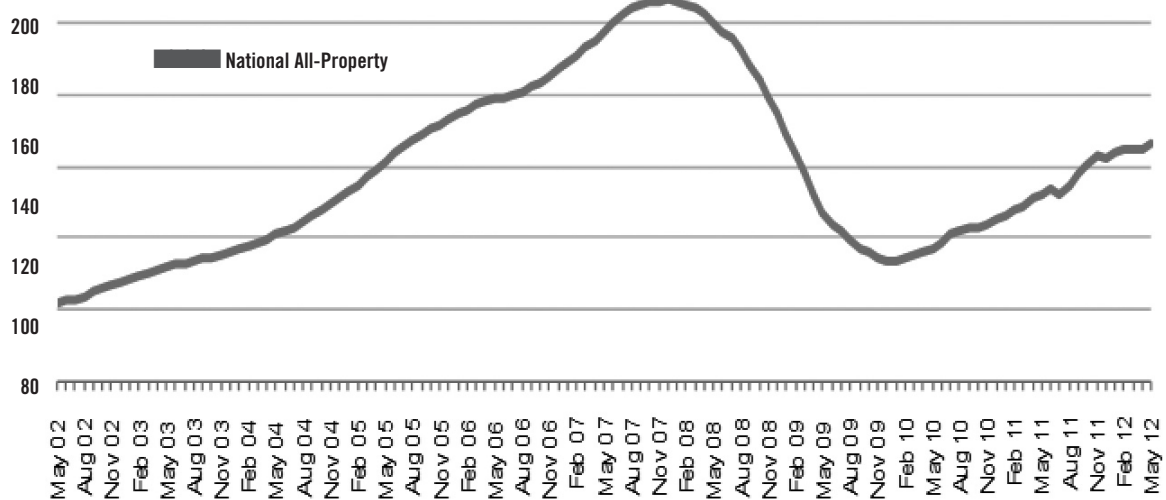
INSIDER'S PERSPECTIVE  
The Case for the Return of CMBS

Figure 4  
Maturing Commercial Real Estate Debt



Source: Trepp, LLC

Figure 5  
Moody's/RCA CPPI–National All-Property Composite Index



Source: Moody's Investor Service, Inc.

## The Case for the Return of CMBS

Increasing property sales will contribute to increasing lending and CMBS issuance. At the same time, the commercial real estate market is facing a mountain of debt to refinance over the next five years. See Figure 4. In the CMBS market, refinancing demands are moderate for 2013 and 2014, but begin climbing in 2015, and reach a maximum in 2016 and 2017. Commercial banks have the highest refinancing needs over the next five years, which could spell opportunity for increased activity in the CMBS space. “[T]he portfolio lenders and the GSEs can only fund slightly more than one-half of the burden.”<sup>14</sup>

Increasing property sales are also contributing to an increase in overall property values. Moody's calculates a commercial property valuation index based on RCA's property sales database. That index has shown a 26 percent improvement nationwide since the bottom of the market was reached after the 2007 recession. Increasing property values also make it easier for servicers, lenders and investors to realize greater returns on distressed real estate assets. The improved environment for investing has led the real estate industry to begin using CMBS, through non-performing loan transactions, to finance their investments in distressed assets. This has the twofold benefit of increasing CMBS issuance volume today and also speeding up resolutions of distressed assets in existing CMBS transactions. As of Sept. 30, 2012, three such transactions have been completed:

- \$132,000,000 Rialto Capital, Series 2012-LT1;
- \$159,500,000 S2 Hospitality, Series 2012-LV1;
- \$195,000,000 Oaktree Real Estate Investments / Sabal, Series-LV1.

The sale of distressed loans also provides commercial banks with conduit operations an opportunity to clear their books in order to create capacity to hold and aggregate new commercial real estate loans for purposes of securitization.

### LENDING ENVIRONMENT

In the U.S., CMBS faces competition for loans on commercial real estate from four principal sources:

- 1) Large commercial banks with national lending platforms;
- 2) Community banks that serve their local markets;
- 3) Insurance companies, particularly the major life insurers; and
- 4) GSEs—primarily Fannie Mae and Freddie Mac (for multi-family properties only).

All four sources are active in today's market, but each faces capital and regulatory constraints that prevent them from displacing CMBS, and that will limit them in the future.

Large commercial banks are back in the business of lending on commercial real estate. However, the appetite for long-term, fixed-rate loans is limited. Because of their capital and funding structures, commercial banks primarily focus on short-term, floating rate products. Within those constraints, the banks are actively lending on transitional assets, to REITs on an unsecured basis, and in the construction fields. It should be noted that a number of the large commercial banks (including Wells Fargo, J.P. Morgan and Citibank) also operate active origination platforms for CMBS loans.<sup>15</sup>

Smaller community banks are active competitors for smaller loans in their local markets. These banks are searching for higher yields in a low interest rate environment, and find that real estate can be an effective way to increase returns.<sup>16</sup> However, smaller banks do face considerable pressure to manage their commercial real estate investments judiciously. All of the U.S. banks that failed in 2012 (through July 31) were hurt by heavy concentrations in non-performing commercial real estate loans, including construction loans.<sup>17</sup> Regulators continue to be concerned that banks do not become overly reliant on commercial real estate. Comptroller of the Currency Thomas Curry recently stated “[f]or commercial real estate specifically, current non-performing and loss rates continue to significantly exceed historical averages.”<sup>18</sup> Also, because of their size, community banks often cannot effectively fill demand for mid- to large-size loans.

Life insurance companies continue to be a major source of capital for the commercial real estate market, and many have been reporting strong origination activity, which has continued into 2012. However, insurance company lending is focused on Class A properties in the largest markets, with an emphasis on low LTVs.<sup>19</sup> The companies' preference for high quality, low LTV loans will be reinforced by the proposed changes to their risk-based capital requirements, which could double or triple capital held against loans with LTVs higher than 60 percent.<sup>20</sup>

As an outcome of the 2007 financial crisis, the two GSEs, Fannie Mae and Freddie Mac, were placed in receivership by their regulator, the Federal Housing Finance Agency (FHFA). As conservator, FHFA has stated that the GSEs should “gradually contract the GSEs' dominant presence



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in the marketplace while simplifying and shrinking their operations.” In the multi-family space, the FHFA wants to encourage the return of private capital to the multi-family lending market.<sup>21</sup> Over the past two years, Freddie Mac has begun to rely heavily on the capital markets to fund its multi-family lending, and has adopted a CMBS-like approach to its securities (which have totaled \$24 billion in issuance beginning in 2011). Over that same period, Fannie Mae also accessed the CMBS market for \$9 billion of capital. Federal policy should lead to an increase of multi-family assets available to the private market, which will contribute to higher issuance of CMBS.

### INVESTOR BEHAVIOR

Borrowers may want to use CMBS loans, and conduits may want to make the loans, but if investors will not buy the securities, there would be no CMBS market. The news in this area reinforces the author's long-term view of the market.

Credit Suisse, in its “2012 Global Outlook,” stated that “[t]he reach for yield, in a low rate environment, and the generally high level of credit enhancement should keep this sector in demand from a variety of investor types.” This was a common sentiment at the beginning of 2012, and subsequent events have not changed that perspective. In its *U.S. Fixed Income Weekly* for June 29, 2012, J.P. Morgan stated that CMBS securities continue to “offer convincing relative value versus comps in corporate credit.”

Trepp, LLC is a provider of data and analytics to many of the participants in the CMBS industry, and is the employer of this author. In the course of business, Trepp employees canvas clients for their opinions and comments about the current state and the direction of the CMBS industry. The comments that follow are based on such discussions. Broker/dealer research opinions are reinforced by conversations with many of Trepp's key clients. One insurance company stated that when it sees a deal it likes, it will buy all of the “subordinate” AAA bonds in the deal. (Note, in a typical CMBS structure, the AAA bonds are split into two tranches—a “super-senior” and a subordinated AAA.) Similarly, other investors view that AAA CMBS, particularly the super-senior class, will continue to be a major investment, particularly because of its return advantages in today's market. Some of the latest CMBS issues have seen insurance company interest in purchasing bonds beyond these AAA levels as well.<sup>22</sup>

Bonds below AAA and above the “B-pieces” (i.e., the bonds rated less than BBB/Baa) have been primarily

purchased by hedge funds and private equity funds. Trepp's discussions with the managing director at one of the large CMBS issuers identified the target yield for purchasing these securities as in the range of 10 percent.<sup>23</sup> In the opinion of that managing director, there will be sufficient demand for bonds priced to produce a yield in this range, and there would be little difficulty in selling bonds on new issue.

As a last point about investor interest in CMBS, it is important to note that Blackrock iShares initiated a new exchange-traded fund (ETF) for CMBS. (An ETF is a listed fund that issues shares of stock in the fund in exchange for the deposit of actual securities. ETFs are designed to permit investors access to a wider variety of diverse investment alternatives.) While the full impact of the emergence of a CMBS ETF remains to be seen, such an ETF does open up the CMBS market to new categories of investors who otherwise might not invest directly in the segment, such as active equity or macro traders.

### CONDUIT ISSUER BEHAVIOR

The U.S. conduit issuers (such as J.P. Morgan, UBS and Cantor Fitzgerald) continue to rebuild their operations in 2012. “[T]he conduits have ramped up their hiring and their parent companies have started to breathe new life into those that were dormant for years.”<sup>24</sup> The number of firms that are making conduit loans is increasing, and the number of lead managers is increasing as well.

### MARKET ISSUES / IMPEDIMENTS

The continued return of the CMBS market does have issues that must be resolved in order for CMBS issuance to return to sustainable levels. First among these issues is the impact of the legacy (pre-2008) CMBS transactions. The structure of these “CMBS 1.0” transactions had certain built-in tensions which became conflicts of interest when exposed to the massive increase in delinquencies and defaults that resulted from the 2007 recession. The resolution of these legacy issues, and the modifications made to the structure of new issue CMBS, will be part of the ongoing debate over the next few years. New issues of CMBS since 2008 (“CMBS 2.0”) have included new structural features relating to subordinate investor control rights, special servicer compensation, potential conflicts of interest and affiliate transactions. Many of these changes have been made in response to issues raised by the AAA investors in CMBS 1.0 transactions, but the changes remain to be tested and “unintended consequences” cannot be ruled out.<sup>25</sup>

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Another brake on the volume of conduit lending is the absence of a reliable hedging instrument for lenders. Hedging can reduce the risk of loss to a conduit lender from interest rate and spread changes between the time a loan is made and the time that loan is securitized. Without a clear hedging strategy, issuers are reluctant to warehouse large volumes of loans, and it is harder to create large, efficient transactions. One response of the market is to structure more transactions where multiple originators contribute collateral to a single deal. For lending beyond 2012, various market participants are already working to develop new swap instruments to support hedging.

Finally, regulatory and legislative uncertainty continues to put a drag on the CMBS market. The law firm Davis Polk reported on July 2, 2012, that the Dodd-Frank rulemaking requirements for asset-backed securities are lagging behind schedule. Only two of the 14 required rules have been finalized, and there is ongoing debate between the regulators and Congress over significant portions of the Dodd-Frank rules, including risk retention.

Proposed changes to bank capital requirements could also require sizeable changes to the structure of CMBS transactions. One example is in the area of servicer compensation.<sup>26</sup> With the U.S. presidential election taking place in November 2012, significant progress is not expected in this area until early 2013. Further, the outcome of the November elections could have an impact on the direction of the regulatory framework. Members of both the Senate and the House have begun to express strong opinions about various aspects of the securitization regulations and have been conducting hearings on the impact of such regulations on capital formation.<sup>27</sup> If there is a shift in political sentiment away from some of the extensive regulations being proposed, it could increase the pace at which CMBS regains market share.

### CONCLUSION

The downturn in CMBS issuance was caused by the collapse of the real estate bubble (primarily in the U.S. single family market) which triggered a global recession and financial crisis.<sup>28</sup> The downturn was deep and started a major restructuring of the CMBS industry that continues today.

Market dynamics will produce a continuing resurgence of the CMBS market for a number of reasons:

- Recovering real estate markets will increase the demand for fixed-rate, longer-term loans;
- Active lenders in the current market are facing constraints on the total amount of lending they can do, as well as the types of loans they can fund;
- Investors continue to find value in the CMBS asset class; and
- The market is adapting to the changes and needs that emerged from the recession.

The market should stabilize over the next three to five years, with total CMBS outstanding reaching a plateau of between \$550 billion and \$600 billion. Once stabilized, CMBS should thereafter grow in size to meet the capital demands of the commercial real estate market. ■

### ENDNOTES

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11. CREFC, op.cit.
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# The Failed Experiment of Vancouver's 2010 Olympic Village

BY WILLIAM P.J. MCCARTHY, CRE, FRICS, CPM

PROLOGUE: ON JAN. 17, 2009, THE LEGISLATIVE ASSEMBLY for the Province of British Columbia met in an emergency session in the Provincial capital of Victoria. There was only one item on the agenda to be debated and voted upon. The City of Vancouver, set to host the 2010 Winter Olympics in less than thirteen months, had petitioned the Province for the authority to amend the city's Charter. This unprecedented request and its urgency was to permit the city to temporarily have authority to use its financial reserves and borrowing authority to bail out a private developer and its failing condominium development that was set to serve as the Athletes' Village for a two-week period in 2010. Without these special powers, the only lender the developer had been able to secure, a struggling New York hedge fund, would force the one-billion-dollar-plus project into default. If this were to occur, the city would be in default, having explicitly subordinated itself to the lender and become the de facto guarantor of the entire project, thereby subjecting itself to all of the risks and liabilities and certain and significant financial losses.

What occurred in Vancouver is a graphic and still unfolding case study on what occurs when cities put themselves and their taxpayers at risk with little possibility of achieving the lofty goals and agendas used to justify these types of undertakings. Politicians and their bureaucrats often become enamored by such mega projects, especially if they can attach their own agendas to them. To promote these projects and subsequently justify them usually requires some cause, in this case, branding what was to be a private condominium development as Vancouver's Olympic Village. Therefore, what occurred in Vancouver should cause others to exercise caution. These "vanity" projects generally never perform as promised

and there are often measurable consequences and losses that result.

The public and private interests that had promoted and approved this experiment and expected to benefit from its success were now forced to explain what had happened and why they had authorized a development that now placed the city at serious financial risk. The year before, Vancouver's current mayor had won a resounding election victory partially by promising a full and open hearing on this project, stating that the city stood to lose \$1.0 billion in the process. His subsequent efforts to limit the city's exposure also failed. This was not meant to happen. As described in a February 2009 article in *The New York Times*:

The Olympic Village development, intended as a green demonstration project, "has transformed city building in every aspect." The Olympic Village site, a rare case in which the entire neighbourhood has a LEED Platinum rating, features a net zero building that produces as much energy as it uses, sites for

## About the Author



William McCarthy, CRE, FRICS, CPM, is a property developer and owner, and a real estate agent and consultant based in Burnaby, British Columbia. McCarthy is a past president of the Real Estate Institute of Canada, and has served as a director and officer of several other professional and community organizations. A Counselor of Real Estate® since 1995, he has participated in three major assignments for the CRE Consulting Corps. McCarthy currently chairs the CRE Ethics Committee.

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urban agriculture and a neighbourhood energy utility that uses heat recovered from raw sewage to heat all the buildings in the development. And the area around the Village is becoming a cultural and residential destination.

—Quoted within the above is Brent Toderian, then City of Vancouver's director of planning.<sup>1</sup>

This optimism and blind faith in their vision and abilities began in 2003, when the City of Vancouver won the international bid to host the 2010 Winter Olympics. Included in the Vancouver bid was a commitment to expend \$30 million on athlete accommodations for the two-week event. How then did Vancouver and its taxpayers come to lose hundreds of millions of dollars, with losses continuing, on a condominium project that has yet to sell out over six years and went into receivership just months after the close of the 2010 Winter Olympics? How and why was the debt and hundreds of millions of dollars of losses transferred onto the Vancouver taxpayers with seemingly little or no consequences to those public and private individuals who conceived, promoted, developed and marketed the project? Rather than set a new standard in planning, Vancouver's Olympic Village is instead a case study on what can occur when urbanist ideology and agendas, political expediency and cronyism and greed trump true market competition and discipline. By any measureable standard, this is a failed project.

In 1998, Vancouver formed a Bid Committee to pursue the 2010 Winter Olympics. British Columbia and the city's bid for the Games incorporated into their submission plans to house Olympic athletes and officials in what are generically known as "Olympic Villages." In recent Olympics, several of these Villages have been hybrid public and private residential developments that are leased or sold after the Games. When public funds are in play and at risk, there is always the potential for controversy and conflict in trying to merge public and private interests. These projects can also become politically-driven, not market-driven developments. Without the discipline and consequences of an open market, the subjective replaces the objective.

The Olympic Games are now also widely perceived as important promotional opportunities for cities to reinforce their claim as 'world class' destinations for tourists and capital in the global economy...The Games have also been envisioned by civic elites as opportunities to develop under-utilized land through

the construction of extensive Olympic Villages that can, in turn, be sold as luxury condominiums. Vancouver's aspirations were no different in 2010: To promote itself as a large world class cosmopolitan gateway to the Pacific Rim... but it was a flawed process.<sup>2</sup>

This project also highlights a need to objectively and systematically assess "smart growth," green building initiatives, urban sustainability and the merits and practicality of the Leadership in Energy and Environmental Design (LEED) standards and the certification process. Vancouver planned to transform the 80 acres surrounding and including the Olympic Village site into a green urban oasis. The city also believed it would be able to combine costly subsidized housing together with top-end luxury condominiums whose prices were initially listed above those of downtown Manhattan.<sup>3</sup> Both the green and social housing initiatives were used to secure political support—with little attention given to their cost or risk implications. City bureaucrats and politicians expected to be proclaimed urban visionaries and geniuses. Special interests were also pleased and empowered that their demands for social housing, green initiatives and other amenities had been met—and rather easily. Those who were to develop, build and market the project expected to make a lot of money and establish and market their personal "brand."

The Olympic Village story is still unfolding, as are the fallout and financial costs to the city. The fourth consecutive City Council to have oversight on this file, like its predecessors, is trying to spin the story to meet its current political agenda. Many of the city's bureaucrats, planners and consultants who are responsible for this project continue on in their roles. Most of the local real estate and development community downplay publicly (but not privately) the end results rather than jeopardize their own interests in the hyperactive real estate market in which they work. The local press, most of which were often slow to grasp or investigate what was unfolding on this story, did not distinguish themselves. With some exceptions they provided either incomplete analysis or merely regurgitated what was presented to them by the city, the developer and marketer of the project and their media and public relations consultants. There has been a concerted effort by those most associated with the "Vancouverism" urban brand and the city's attempt to be a leading-edge city to mitigate the Olympic Village failure. Its failure will be viewed as failure. Losses will be



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extensive and ongoing because of the city's entanglement in the project.

Vancouver City Council knew as early as the summer of 2007 that the Olympic Athletes Village was in jeopardy and that the city's own financial investment in the project was at risk... The city is responsible for the entire cost of the \$1 billion project, a fact now increasingly inevitable: Construction of the Olympic Athletes Village will lead to one of the biggest financial losses in the City of Vancouver's history.<sup>4</sup>

This was not supposed to happen. The Olympic Village and the development of the surrounding Southeast False Creek (SEFC) lands were to set the bar higher for progressive green urbanism with a Vancouver touch. Directly across the "False Creek" or inlet from where British Columbia's highly successful Expo '86 World's Fair had been held almost 25 years before, the Olympic Village and the publicity that the city and Province would receive from the 2010 Olympic Games would be used to market the Province, the city, and their lifestyle. It would justify the current high housing prices in the city. It would promote the community's commitment to sustainable and all-inclusive housing and development initiatives. With such a diverse and intense agenda to achieve within a very short time period, it is not surprising that those most responsible for the project let their ideologies, enthusiasm and greed far exceed their actual expertise and competence. As a result, Vancouver is now one of the least affordable cities in the world, with its civic budget heavily reliant on property taxes and development cost charges.<sup>5</sup>

To understand how and why this project unfolded as it has, and why green initiatives led to red ink, we must review and understand the chronology of these lands, the City of Vancouver's approach to urbanism, and how this city's politicians and bureaucrats handled the most important redevelopment and construction project in its history.

### THE SETTING: VANCOUVER'S FALSE CREEK

The location of Vancouver's Olympic Village is on the southeast bank of the city's former industrial waterway inlet, known as False Creek. For more than 100 years, this location housed numerous industrial enterprises. For the past 40 years, successive Vancouver Planning departments and civic governments discussed and debated redevelopment scenarios for this prime site. All of these plans focused on the trendy urbanism themes of density, green initiatives and the generic "smart growth" mantra.

Figure 1



The City of Vancouver's Southeast False Creek (SEFC) lands are outlined in red. The development site that includes the 2010 Olympic Village is in the center of this parcel.

Source: <http://vancouver.ca/commsvcs/southeast>  
Photo Credit: Eagle Eye Flying Cameras

Leading up to the adoption of the SEFC policy statement approved by Vancouver City Council in October 1999, successive city governments and planners proposed several master plans for the public and private lands. These included traditional high-rise office and residential towers as well as blended projects with a variety of buildings and heights. By 2002, the City of Vancouver made sustainability criteria a major part of its Official Development Plan (ODP) for the SEFC lands. Incorporated into these plans was the sustainability challenge issued by a 1991 City Council declaration:

On the south shore of False Creek; develop a neighborhood that is the model of sustainability, incorporating; forward-thinking infrastructure; strategic energy reduction; high performance buildings; and high transit access.<sup>6</sup>

### VANCOUVER SEEKS THE 2010 WINTER OLYMPICS

In 1998, Vancouver and the resort ski village of Whistler, British Columbia began the process of submitting a bid to host the 2010 Winter Olympics. As part of any bid submitted to the International Olympic Committee (IOC), accommodations for athletes and officials must be addressed, and specific details with regard to the "Olympic Athletes Village" provided. In previous Olympics, existing facilities such as university or institutional dormitories have been used. More recently, housing developments also have been constructed to house the athletes; afterwards, governments retain some units and sell off others. What was conceived and constructed in Vancouver for the 2010 Olympics was unprecedented.

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On July 2, 2003, Vancouver won the bid to host the 2010 Olympic and Paralympic Winter Games. At this point, only the 2002 Games Facility Agreement addressed the requirement for an Olympic Village, with a \$30 million contribution towards these accommodations.<sup>7</sup> In July 2004, Vancouver formally adopted its SEFC green building strategy. But rather than the narrow high-rise developments, reflective of what the city refers to as "Vancouverism," the city's then Planning Department instead arbitrarily decided that a collection of low-rise mixed-use structures, reminiscent of former east European cities, would be built. This decision would turn out to be perhaps the most critical and costly miscalculation in the entire process. Had high-density towers been constructed by experienced developers and contractors, they would have easily been occupied and rented or sold after the Olympics. And, with the towers' smaller footprints, the city could have saved considerable environmental remediation costs and provided much needed park and green space by making the acreage around the property a collection of green space, parks and sports facilities.

On March 1, 2005, Vancouver approved its ODP for the SEFC lands, followed on Dec. 21, 2005 by a formal request for proposals to develop the 2010 Olympic Village. Fully seven years had expired since Vancouver's Olympic Bid Corporation was formed, and almost two-and-a-half years had lapsed since the city had been awarded the Games. Vancouver now had just over four years before the 2010 Games to plan and construct untested urban models with unproven green technologies and to do so in the midst of a global economic downturn.

Instead of being concerned about the logistical and time constraints of this project, a review of the record of public debates and the confidential Vancouver planning deliberations that subsequently emerged, the city and British Columbia became empowered by the thought of developing a project that would buttress Vancouver's efforts to brand itself as a leading edge urban centre, whose leaders and planners would set future standards for other cities to try to emulate. In a 2006 article in *Canadian Geographic*, Vancouver was referred to as "Futureville," with "the fastest-growing downtown core in North America and... becoming a showcase for the greatest urban experiment since the 1950s." The Olympic Village would become the neighborhood of the future "where cars will have a tough time finding parking," and energy generated from sewage will be used to heat most of the neighbourhood.<sup>8</sup> This

article further stated that even before construction began, this site had "already profoundly influenced a new generation of architects, designers and buildings."<sup>9</sup> Having boasted so boldly to the international community and especially within the urban and planning sectors about what Vancouver was going to achieve, the city has subsequently devoted considerable resources and efforts to save face and spin the results of what occurred with regard to this vision.

It should have been obvious from the outset that there would not be enough time to conceive, design and build a multi-faceted public and private partnership development centered on an untested concept to combine low-income affordable housing with some of the most expensive condominium units ever developed. Furthermore, leadership insisted that the highest level of green building initiatives and technology be used, which would further add to the time and costs to complete. In addition to these design and planning challenges, the city would also be responsible for the extensive environmental remediation and costs related to the city-owned properties' previous use as industrial sites. The remediation work, combined with other civic amenities including a new community centre, would cost Vancouver hundreds of millions of dollars. The private developer who would be selected to construct the Olympic Village would therefore be the beneficiary of unprecedented amounts of civic infrastructure, amenities and civic goodwill prior to committing its own capital.<sup>10</sup>

### HOW NOT TO BUILD A VILLAGE

Throughout the entire process, successive city governments would prove susceptible to their biases and the agendas of their political supporters, the real estate development and construction community (their largest financial supporters), and several other lobby and activist groups with their own wish lists. The pressure of meeting the mandated deadlines by the International Olympic Committee would also drive up costs. Had the city conducted proper due diligence and risk assessments before committing to its Olympic Village concept, or considered other more traditional athlete accommodations for the one month required for the Olympic and Paralympic Games, this project would likely never have proceeded.

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Figure 2



*"It's a mixed-use facility: retail space, low-rent housing, luxury apartments, and an area set aside for making steel."*

Source: The New Yorker magazine, Jan. 4, 2010

The SEFC lands consist of approximately 80 acres (32 hectares) of which 50 acres (20 hectares) were owned by the city. Parcel 2A would become the site of the mixed-use development project originally known as Millennium Water, named after the developer, Millennium Development Corporation, that incorporated Millennium Southeast False Creek Properties (MSFCP) Ltd. to develop the project. Millennium Water would temporarily house the Olympic athletes and afterwards become 252 units of social housing owned by the city and 856 market condominiums sold by MSFCP Ltd. MSFCP would be the developer for the city and itself, earning fees throughout the process. The city, therefore, became totally dependent on one firm for the most expensive project in its history.

Figure 3



Vancouver's Southeast False Creek lands.  
The Olympic Village was built on parcel 2A

Source: <http://vancouver.ca/commsvcs/southeast/ownership.htm>

On April 6, 2006, Vancouver City Council selected MSEFC Ltd. as developer of the Olympic Village. The key determinant would be MSFCP Ltd.'s offer to pay \$193 million for the land component (later raised to \$200 million when a section of privately owned property was bought by the city and transferred to the site).

How and why MSFCP Ltd. was selected as the developer of the Olympic Village project and provided with the potential to achieve a financial windfall should the project succeed as envisioned, was and remains controversial. Only three development proposals were submitted to the city for the final decision, where a group of officials would secretly select the Village's developer. (That only three contenders emerged should have been further evidence of the high risks involved). According to the City of Vancouver's own reports, each bid was assessed on an evaluation matrix which was comprised of 57 individual criteria, grouped in three categories.

An Evaluation Committee comprised of eight senior staff was convened to undertake the evaluation of the Respondents' proposals. An additional three non-voting staff members also provided support and resources, and a fourth non-voting committee member from VANOC provided technical advice and resources related to the VANOC Olympic Village requirements.

The Evaluation Committee reviewed each proposal in detail using the evaluation matrix ("Evaluation Matrix") and methodology. ... Respondents were also invited to participate in formal interviews with the Evaluation Committee.<sup>11</sup>



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To date, the members of this select evaluation committee and the details of its deliberations and individual and collective votes on the evaluation matrix remain confidential. This matrix was long on phrasing, but not specific on financial and performance benchmarks. It put in context the role and importance the city planners placed on urbanism and sustainability, and its social housing agenda.<sup>12</sup> What we know from city records is that after the first round of evaluations, MSFCP Ltd. was ranked third of three bids. What occurred next has yet to be thoroughly or satisfactorily explained, and the city has not been forthcoming on its actions. The evaluation committee undertook a "second review," this time "to determine which of the proposals offered best value. A sensitivity analysis was performed to measure the impact of purchase price on the total points achieved for each proposal."<sup>13</sup> What constituted this "sensitivity test" was not explained. As a result, the last place finisher was declared the winner of the contract.

Therefore, despite designing an evaluation matrix heavily weighted on intangibles such as social housing, sustainability and green building initiatives, ultimately a fictitious price trumped these. MSFCP Ltd. offered a purchase price of \$193 million, a then record for buildable land in the city. (How and when MSFCP Ltd. conceived this bid price is not public record. It was the highest bid by \$20 million). In reality, MSFCP Ltd. would never actually pay this amount and submitted only a \$29 million deposit (about 3 percent of the proposed project), when it effectively won the bid. In addition, a city process that did not require the bidders to submit full financials and other information as would generally be expected in a project of this size continues to confound. It appears that whatever was submitted by MSFCP Ltd. was accepted as fact, with few questions asked, and those that were asked were not challenged. Instead, the city entrusted the prestige of its Olympic Village Project and the construction of its own 250 social housing units to a developer who almost immediately faced cash calls. (One city official did show leadership. The city's longstanding chief financial officer, Estelle Lo, vigorously objected to the design and implementation of the bid process and raised practical and prudent questions about the ability of the bid winner, MSFCP Ltd., to have the resources and ability to complete a very ambitious program within a tight timeline. The warnings of this conscientious civil servant were not heeded, and Lo "left the city" with a significant severance package and a tight non-disclosure agreement. Who forced Lo out and why remains unexplained).<sup>14</sup>

On Aug. 10, 2006, MSFCP Ltd. submitted its rezoning application for the Olympic Village site to the city. The Official Development Plan for the Olympic Village site was ambitious. Based on a unique and unproven blend of social housing (mandated by the city) and very expensive market condominiums, the overall project would attempt to create an instant neighbourhood and village center—and in time for the Olympics, then just three-and-a-half years away.

Once selected, MSFCP Ltd. engaged the city's most prominent condominium marketer, Bob Rennie and Rennie Marketing Systems (view his firm's Web site at <http://www.rennie.com>), to advise on the pricing models and marketing of the units, and to conduct the pre-sale and sale campaign for the market condominiums. Vancouver and all associated with this project, and those who stood to benefit greatly financially and from the prestige of being associated with such a cutting-edge project, were wildly optimistic at this point. Despite the city's having to incur the remediation costs of the land and fast-tracking its plans to establish a walkway and other public amenities around the Olympic Village Site, it expected to net tens of millions of dollars. The amount of profit the developer expected to make is subject to conjecture, but based on its pricing models, it would likely have been in excess of the \$135 million net profit (not including other fees and monies the firm would generate if the project succeeded) that was reported to the city in October 2008 when the project was failing and the city became the de facto bank for MSFCP Ltd. Please note that throughout the entire project, MSFCP Ltd.'s reported total equity contribution was only \$29 million. The city also continued to state that it would make, not lose, money on this venture.<sup>15</sup>

Rennie's listing agreement and commissions and marketing fees (all passed on to the consumer and now taxpayers) are extremely lucrative. While the Rennie Marketing contract with first the developer and then the city (after the project went into receivership), are not public record, in a subsequent auditors' report to the city, based upon Rennie's own submission, in 2008 his pricing model, (which was proven highly inaccurate), projected the gross residential sales proceeds from the market condominiums to be \$1.09 billion (\$1,273,365.00 average over 856 units). Rennie Marketing's stated commission on this projected revenue was \$27 million. This equates to a sales commission of \$36,735 for each of the condominium units. Rennie's long purported fee to market

## The Failed Experiment of Vancouver's 2010 Olympic Village

Vancouver condominiums is \$50,000 per unit.<sup>16</sup> (The developer's total equity injection would therefore barely meet the sales commission projections.)

The Olympic Village project was to achieve two Official Development Plan performance benchmarks.<sup>17</sup> The first was the "November 2009 Olympic Ready Commitment," whereby the developer was to have completed and be prepared to deliver to the city and the 2010 Olympic Committee "a 17-acre village to house up to 2,800 athletes and officials." The 1,100 units would be composed of 250 social housing units, 730 market sale units and 120 rental units. The second phase, the "Market Ready Commitment," was to be completed by September 2010, after the February and March 2010 Olympics and Paralympic Games. At this point the developer would deliver the 850 market residential units (730 condominiums for sale; 120 rental units, with about \$1.0 million square feet of space) and 69,000 square feet of commercial space to sell and lease. The market-ready facilities would complement the city's 250 social housing units owned and rented out.

If, and only if, the market units sold at the very high prices that had been set, and sold rapidly, would the city remain in the black. The city had no "Plan B," and no contingencies should its assumptions fail. Subsequently, Vancouver documents show that almost from the time the developer was selected, the project was in serious financial and operational trouble. If the city could not fully grasp what was occurring—why not? If it knew, then what motivated it to proceed, and in a secretive manner?

Figure 4



The Olympic Village Under Construction

Source: City of Vancouver Web site  
at <http://vancouver.ca/olympicvillage-update.htm>

Vancouver had selected a developer without the financial or operational resources to complete the project—information that would have been obvious to city officials had they

conducted professional due diligence or selected independent analysts to do so. Rather than face reality and acknowledge their errors, those entrusted with governance over the file chose neither to dismiss the developer nor scale back their project. Instead, and in secret, the city retained the developer and marketer, becoming their biggest boosters. The result is that its banker and its performance guarantor ultimately had to absorb the losses.

In an October 14, 2008 Vancouver Administrative Report, remarkable for its self-serving prose and defense of the city's actions to date on this file, went over the top in defending and praising the current developer, MSFCP Ltd. The report stated "There is no compelling schedule or budget reason for 'taking out' Millennium." This was the first of ten reasons the report cited as to why the city (taxpayers) should retain the developer and embrace and support it. The report stated that neither the developer nor the city was responsible for the project's problems.

The market issues facing Millennium are of a global scale and it would be regrettable for one of Vancouver's leading development firms to lose their reputation, corporate image, and product brand for stepping forward to become the developer of the buildings for the Olympic Village in what has turned out to be difficult times.<sup>18</sup>

(The above-mentioned report was prepared by Jody Andrews, the individual responsible for this file, who had previously prepared many of the reports that the city's Olympic Village plans were based upon, as well as the selection of MSFCP Ltd. as the developer. The reports were long on narrative with virtually no real estate analysis to support their conclusions. Andrews would leave his position four months later).

To recap, MSFCP Ltd. agreed to pay the city approximately \$200 million for the land. They won the bid on this basis, yet records show it paid the city a deposit of only \$29 million, but no more—why? The reason given by the city and MSFCP Ltd. is that the city decided to retain title to the land to ensure the project was completed in time for the Olympics—after which time MSFCP Ltd. would pay all funds owing, receive title to the land and complete the sale of any remaining market units. However, this explanation does not address the underlying question. The best guarantee the city or any seller can have is to receive the full sale price. It is straightforward to prepare and execute performance contracts and bonds to further ensure compliance and



## The Failed Experiment of Vancouver's 2010 Olympic Village

completion. This is the standard and prudent action of any seller. The timeline of MSFCP Ltd.'s money problems is important to highlight. It was selected without thorough and systematic due diligence as the Village developer in April 2006, and had been preparing its bid well before this date. Before 2007, however, it was negotiating with the city for loans. Any subsequent claim that it and the city were victims of the 2008 global economic recession is, therefore, suspect. It was in trouble from the beginning. This accommodation and subordination by a city to the developer is troubling.

The biggest problem is that all major decisions took place behind closed doors. In terms of democratic input from citizens over how their tax dollars were being spent, city officials, the developer and others argued that because of the repercussions for the private sector they couldn't discuss it publicly . . . as the Olympic Village costs mounted some of the grandiose ideas for green, state of the art housing development (not a requirement of the International Olympic Committee) had to be shelved.<sup>19</sup>

The subsequent excuse used by MSFCP Ltd. and its defenders for its financing problems was that without title to the lands, it could not secure construction loans. Again, this explanation is also suspect. Construction loans are based upon equity in the project, a tight pro forma, and guaranteed sales and leasing. Hundreds of qualified banking analysts would have reviewed this file—and passed. And, what stress tests or analyses (if any) were conducted by the city? What were the conclusions? Did the city solicit truly independent third-party analyses? If the answer to any or all of these obvious questions is “No,” then why?

If MSFCP Ltd. and its principals had the resources it purported to have, it could have applied these immediately to the project, and/or pledged enough of them as collateral to match the loans. Instead, several major Canadian banks and lending institutions that reviewed MSFCP Ltd.'s request, declined to participate—despite the opportunity to become in the process an “Olympic sponsorship partner.” These lenders' reviews may have been the first scrutiny and due diligence of MSFCP Ltd.'s capacity to complete the project. Ultimately, the developer would only be able to secure \$80 million in pre-construction loans from a Canadian chartered bank.<sup>20</sup> Based upon a standard 25 percent to 35 percent equity underwriting required in the private market, MSFCP Ltd. would have

had to have \$275 million to \$385 million of unencumbered equity at the start of the project. It did not.

The amount of security provided for the \$80 million loan received has never been made public and it is not known if its deposit of \$29 million formed part of the security for the loan. What became obvious was that the project, with an estimated cost of \$1.1 billion, was in jeopardy even before groundbreaking. The hand-picked developer of the city, who won the bid without providing detailed financial records, would be largely dependent on its construction contract with the city to build the social housing component, unconventional borrowing and pre-sales to fund the project. By its own reports, the city should have known it was in trouble from the start.

This placed additional pressure on the sale of condominiums by Rennie Marketing. Vancouver has become a condominium town, with pre-sales an integral part of the process. It is these pre-sales, often secured with modest down payments (as little as 5 percent at the time) and the purchaser's promise to complete (or assign/“flip” as many try to do) the sale at the agreed-on purchase price when the project is completed (usually in 18–24 months after the pre-sales), that the developers use to secure their construction financing. Such a process is extremely time-sensitive and subject to both local and increasingly global market conditions. If the product is poorly received, incorrectly priced or deemed to be of poor design or value, units will not sell—even in Vancouver.

The initial pricing model conceived by Rennie Marketing was obviously too high. Any hope that people would pay a premium for “the ultimate Olympic souvenir” was deflated once the prices were released, the size of the units and floor plans known or examined, and especially after the actual finished product was available for view and consumers could see the quality of the finish and the workmanship. This included many of the green features in the units, such as “engineered wood floors” (not hardwood, but laminate on a composite), “eco-friendly kitchens” (small ovens and stove tops that limited cooking options), and other energy and green features that the sales staff were not well-equipped to sell. Locals were not impressed by what they saw. The site was unkempt and the exterior and interior workmanship did not reflect the high sales prices. (Eventually, Rennie's marketing team would be able to secure only 265 presales, all of which were the “least expensive” available. Several of these were bought on speculation. When the project began to falter,

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and especially after the price reductions (on average, by about one-third) on the units following the third re-launch of the project by Rennie, 62 owners took legal action to have their sales nullified. While many were dismayed by the depreciation of their assets and the price reductions they were not given, others cited numerous serious deficiencies in the construction and operation of the units and building. Their claim states that their "units are poorly built and badly designed, and not world-class luxury as advertised."<sup>21</sup>

### OLYMPIC VILLAGE ATTENTION TO DETAIL

Figure 5



This is the first bench visible at the Olympic Village. It is situated between Rennie Marketing's real estate sales office and a bank. Indicative of much of this project's workmanship, this clearly off-level bench has not been corrected in five years.

Photo courtesy of author

Eventually, MSFCP Ltd. was able to secure a loan of \$750 million from Fortress Investment Group, a controversial hedge fund based in New York City. The terms of the loan were harsh and punitive. In addition to a massive interest premium, Fortress was able to force both the developer and the city to subordinate their interest to Fortress. The city's leadership placed the priorities and interests of a New York hedge fund over the city and its taxpayers, while providing additional guarantees. This was reckless and unprecedented. The immediate consequence was the downgrade of the city's credit rating.<sup>22</sup>

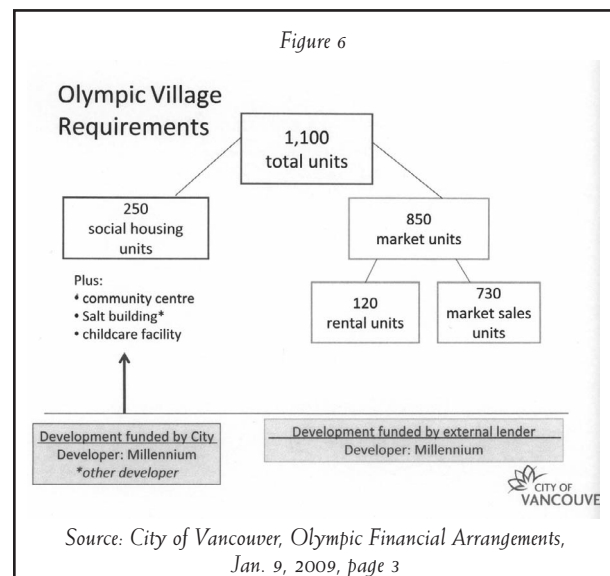
How undercapitalized the developer was became clear when the City of Vancouver took over the entire project and its financing. City documents revealed that the developer planned to borrow up to \$750 million from Fortress. It was also being assessed interest rates of 9.5 – 11.5 percent, almost double the current rates in the market. But only \$572 million of this was to be applied to actual

construction costs. The other \$178 million would revert back as interest payments. The developers were therefore paying massive interest on the loan interest and the principal. That the city accepted these terms highlights the project's risk.

### FROM BAD TO WORSE: THE CITY OF VANCOUVER ASSUMES FULL RESPONSIBILITY FOR A BILLION DOLLAR CONDO PROJECT

Even with the high interest hedge fund loan, MSFCP Ltd. would not have enough cash or cash flow to complete the project. By its own estimates, it was \$125 million short on the construction of the market component of the project it would own, while the costs of the city's stake in the project were escalating rapidly as well. As the city had also awarded MSFCP Ltd. the construction contract for its social housing component, including paying a significant fee to do so, the developer's problems compounded the city's. This began a series of secret meetings with City Hall officials behind closed doors, where it was agreed that the city would provide a private developer \$100 million in public funding to bring its construction loan current, because in what became the city's Orwellian Newspeak, the developer's loan was "out of balance" and the city's loan to it was a "protective advance." Rather than put the taxpayer and the city at risk, City Council and its staff (which had recommended MSFCP Ltd.) were actually "protecting" the city's asset.

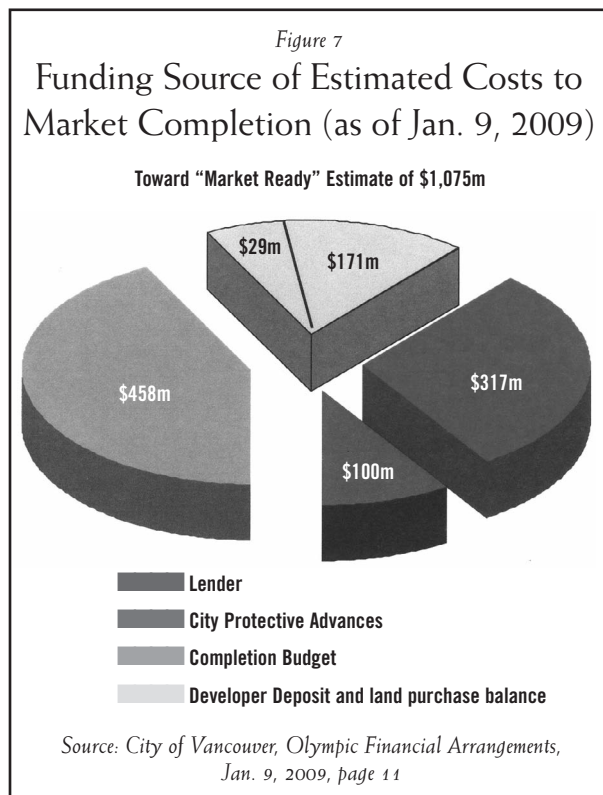
Figure 6



When Fortress Investments faced its own financial crisis following the 2008 global recession, it was increasingly reluctant to continue funding the Olympic Village despite the high interest it received and the city's guarantee. At

## The Failed Experiment of Vancouver's 2010 Olympic Village

this point, Fortress had provided \$317 million of funding.<sup>23</sup> This required the city to petition the Province on Jan. 17, 2009 to have its City Charter, which restricts and limits the debt and borrowing of the Province's largest and most important city, amended so that it could pay Fortress Investments and become the de facto banker and co-developer of the Olympic Village. In its presentation to the Province, which due to its commitment to the 2010 Winter Olympics had to support the Charter amendment, the city presented the following budget to date for the project.



The city requested from the Province the authority to discharge the Fortress Investment loan of \$317 million from its investments and property endowment fund and borrow up to \$458 million in additional funds to finish the project.<sup>24</sup> The city also stated it would spend up to \$450,000 (approximately the price of one of the "less expensive units") in additional staff and consultant fees to oversee this loan.<sup>25</sup> From this date forward, the city was no longer the de facto owner of the project—but the full legal owner, fully responsible for the entire development, its upkeep and costs.

### THE LONGEST-RUNNING CONDOMINIUM MARKETING CAMPAIGN IN HISTORY: THE RE-BRANDING AND RECEIVERSHIP OF THE OLYMPIC VILLAGE

The future of the Olympic Village remains uncertain, especially with regard to the ultimate financial cost to Vancouver. The project was finally placed into receivership by the city in early 2011. A second opening of the project immediately after the 2010 Olympics documented that the "new" pricing models were a failure.<sup>26</sup> Despite multiple re-launchings and marketing campaigns, including renaming the project "The Village at False Creek" (a name few use), and reducing the list price by a third or more, sales remain sluggish. Rennie Marketing remains responsible for the sale of the condominium units. The following table shows Rennie Marketing's "new" 2011 pricing models, after "slashing" one-third to one-half off the original list prices once the project had been placed in receivership:

Figure 8

**2011 Pricing Models**

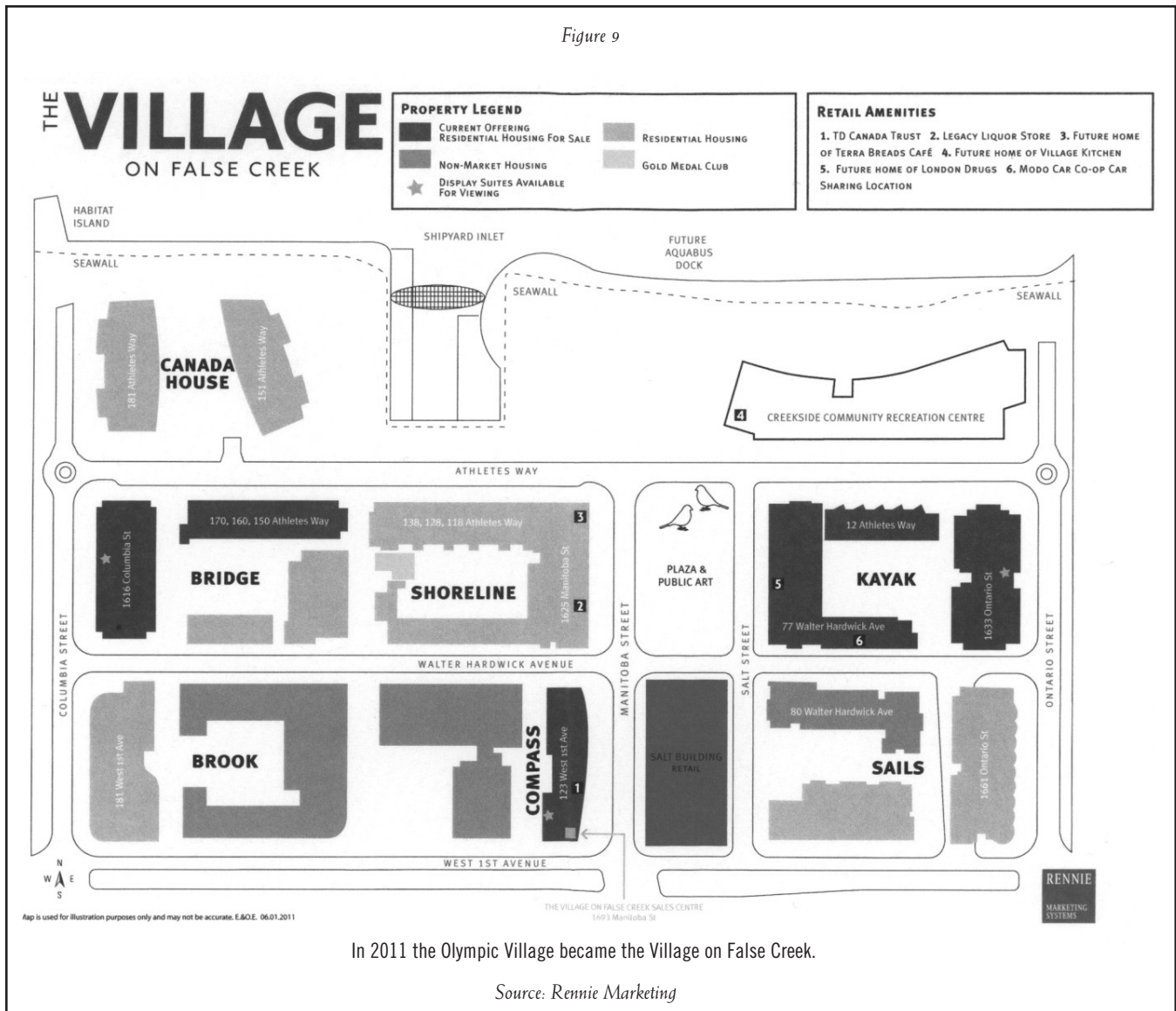
59 units under	\$500,000
61 units	\$500 – 750,000
51 units	\$759 – 1,000,000
59 units	\$1 million plus

Source: KMPG Summary Report to the City of Vancouver and Rennie Marketing.

The re-marketing was to be a phased release so as to not "saturate the market." If these units sold, another block would be released. However, the pricing model was still excessive, with many priced well above \$1 million. Although the price discounts would move some units and create the perception of modest sales momentum, the adjusted prices reinforced the inaccuracy of the initial marketing pro forma. Since the property went into receivership, the city, the Receiver and Rennie Marketing have been very creative with regard to the promotion and "activation" of the Village, even to state that they purposely created a "ghost town" feel to the undersold and occupied Village so that they could subsequently promote a now active and vibrant community once occupancy levels increased.<sup>27</sup> But sales remain modest, with many previous purchasers still seeking legal action to rescind their sales. Therefore, the city and Rennie reduced the number of units for sale by 119, classifying these as market rental units, which lowered the bar for a

# The Failed Experiment of Vancouver's 2010 Olympic Village

Figure 9



“sell out” (yet to be achieved) and referring instead to levels of “occupancy,” not sales at the Village. (This occupancy rate was further enhanced by including the city’s 252 owned and heavily subsidized non-market units, and ensuring these were occupied). The developer’s original pro forma, which the city accepted, was based upon generating sales of more than \$1 billion on 856 market units. Based upon the Receiver’s current report, 544 units have sold, or have “non-conditional” sales agreements. Included in these sales figures would be the reported 264 initial pre-sale units, purchased before 2010. The Receiver’s report is unclear if the 62 owners who filed lawsuits regarding their Olympic Village purchases have settled their claims. Therefore, of the stated 544 units

sold, 264 were pre-sales (which may have been purchased for speculative reasons), and of these units, fully 49 percent of reported sales, 62 commenced legal action against the city. These are the sales results after six years. Rennie Marketing has subsequently stated it will require a further two to three years to sell out the project, which would equate to an average of fewer than 100 units sold over the eight- to nine-year period.

As a result, the city, as the owner and guarantor of the entire project, has been forced to burn through cash to operate and maintain the development, pay for ongoing deficiencies and repairs, and add further losses to the city. Revenue and property tax streams anticipated from the development are likely never to be realized.



## The Failed Experiment of Vancouver's 2010 Olympic Village

Since the awarding of the Olympic Village development contract to MSFCP Ltd. in 2006, the exclusive marketer for the project has been Bob Rennie and his firm Rennie Marketing Systems. For those not familiar with Vancouver's real estate markets and housing prices, the influence of Rennie on product and pricing and his connection with local and provincial government officials is difficult to understand. Rennie's firm continues to be the exclusive agent for the Olympic Village, despite having more than six years to try to sell out 856 market condominiums. It was Rennie who was instrumental in approving the original pricing models and pro formas that were accepted first by the developer and also by the city politicians and bureaucrats. Rennie remains the face of the project. To date, multiple sales, campaigns and project launches have been implemented including several gimmicky giveaways. (One of the incentives used was to receive a year of complimentary Subway sandwiches as part of a \$5,000 amenity package.) These campaigns have been weak and disjointed. Even with a full name change and "re-branding" of the project to "Village at False Creek," the project moved into receivership shortly after the 2010 Olympic Games. Many in the real estate industry believe that the project should have been entrusted to new marketers or have been declared an open listing. Criticisms of his firm's efforts have become more pronounced.<sup>28</sup>

In the beginning of the project, however, when optimism abounded, Rennie and his marketing team spent enormous sums of the developer's and then the taxpayers' money on elaborate brochures, site open houses, parties, and especially newspaper advertisements. His firm is generally considered to be the largest buyer of advertising space in the city's local newspapers which, in turn, have been far milder in their criticism of the entire project and Rennie than has national coverage. In the original Millennium Waters (the developer's name for the Olympic Village) brochure, the green and sustainability component of the project was prominently featured, all meant to answer the question posed in the brochure itself: "How did a former shipyard, an industrial wasteland owned by the City of Vancouver, evolve into a sustainable waterfront community? The architects envisioned what you see in today's plans, never letting go of their responsibility not only to Vancouver, but also to Canadians and the world."<sup>29</sup> From the start, the project highlighted both its unique approach to urbanism and how it would combine and merge social housing with extremely expen-

sive market units, with these diverse socioeconomic demographics living together in harmony, and setting a new example of urbanism for the world.

Because of the financial costs, the city will be forced to reassess its social housing commitment in order to free up more of these units to be sold to reduce the eventual loss to the city. At a cost of at least \$436,500 per unit, not including land value, the 252 social housing units are likely the most expensive such social housing units ever conceived or built. The very merits of developing such expensive social housing, and the principle behind granting such accommodations in such a costly and exclusive development, were never properly analyzed nor is there evidence of a risk assessment and review of the ongoing legal liabilities and costs to subsidize and maintain these social housing units.

### NOT JUST ASPIRATIONAL LOSSES:

#### ASSESSING THE TAXPAYERS' EXPENSES AND LOSSES

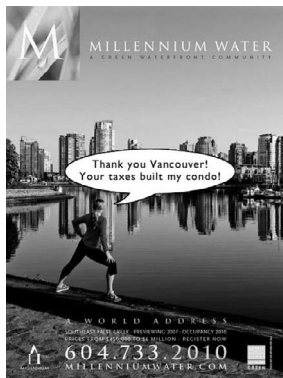
The City of Vancouver's total overall investment in the Olympic Village development and the SEFC lands infrastructure, and its sales and operational losses, grow each month. They will be in the hundreds of millions of dollars. The same mayor and City Council that won an election largely because of the incompetence of their predecessors' claiming possible losses to the city of up to a billion dollars, now states that the Olympic Village losses will be far less than assumed, only approximately \$50 million, because the \$200 million purchase price, which won the bid in the first place, was "an aspirational price" and the city has now written off this debt. When the project was moved into receivership by the city, it was disclosed that the developer was paying the city \$107,081.00 interest-only on a daily basis on the outstanding construction loan of approximately \$560,839,389.04, and a further \$39,000 daily interest accruing on the land loan. The developer was indebted to the city for \$146,081.00 per day in interest. Literally one lower-priced condominium would have to be sold every three days just to pay one day's interest.<sup>30</sup> The city's original book value was approximately \$27 million and this has been recorded as the actual land value. The hundreds of millions of dollars the city paid for environmental remediation, infrastructures, and the city's own facilities including a state-of-the-art community center—all to enhance the village site—is similarly now downplayed. This has been done to try to improve the optics of the project and to artificially reduce the city's eventual final loss on the Olympic Village. If the opportu-



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nity costs loss and ongoing capital and operating costs and subsidies are further incorporated, the loss multiplies.<sup>31</sup> The possibility remains that actual and ongoing losses and expenditures from this project combined with the opportunity cost losses will equate to \$1 billion—all for a 1,108-unit condominium project.

Figure 10



Source: Condo hype Web site

The four successive City Councils, of varying political persuasions, that were responsible for the Olympic Village file and its consequences, saw a once-in-a-lifetime opportunity to be associated with both an Olympics and cutting-edge planning and green initiatives which would bring praise for the city and its leadership. Their lack of understanding and governance on such a complicated project, and their failure to question and hold senior staff accountable for their decision-making and clear favoritism is, at best, disturbing. Hard questions and honest answers are warranted.

Many of the local development, construction and real estate industries also were compliant in this undertaking because of the money and future opportunities they expected would follow the Olympics. With government assuming most of the risk, and even acting as the developer's lender and mitigating the market forces that are supposed to curtail or punish poor planning and execution, these mistakes and costs were not paid by the developer, but instead transferred to and paid for by the taxpayer. The conflict of interest between politicians and developers and the real estate industry in Vancouver is now toxic.

As the chronology shows, the Olympic Village Plan as submitted in 2006 is based on years of "smart growth" and green agendas with Vancouver's unique real estate culture. The project was an impractical and unproven

hybrid of social and market housing, untested green initiatives, and an unrealistic push to achieve maximum LEED certification standards without proper cost and performance analyses, or consideration of the wet climate of the region.

Why city officials and successive City Councils kept expanding the Olympic Village project when the developer was quickly shown not to be capable of completing the project with its own resources has yet to be sufficiently disclosed or explained. Nor has a simple question been answered: How did Vancouver, which received a \$30 million payment from the 2010 Olympic Committee to provide housing for less than a month for Winter Olympians, agree to become responsible for a \$1.1 billion private development? How could such a scheme ever have been considered to be in the best interest of the taxpayer, private enterprise, and ultimately the green and sustainable requirements of the project itself?

The LEED brand has been harmed by the Vancouver Olympic Village experience. The extensive list of planning and sustainability and green awards won by this development, many before it was built and most before occupancy, raises questions about how LEED certification is granted.

### CONCLUSIONS AND RECOMMENDATIONS

In 2010, Vancouver and Canada proudly hosted a successful Winter Olympics. The costs to stage these events are always expensive—and controversial. In the case of the Vancouver Games, it is the mixed-use condominium development which temporarily housed the athletes that has generated the most controversy. No matter what eventually becomes of this project, nor how it has been promoted or defended by those responsible for it (and who stood to benefit from it the most), the project has failed based on the guidelines used to promote it. What was and has been promised has not been delivered. The project has been a planning, political and real estate failure.

There are numerous reasons why the Olympic Village failed. The story is still unfolding, as are the direct and indirect costs to the taxpayers in Vancouver. In the interim, the 2010 Vancouver Olympic Village can serve as a warning to planners, urbanists, politicians, developers and members of the public about the pitfalls of simultaneously micro- and macro-managing complicated and technical mega projects. The Vancouver experience underscores the importance of skill, discipline and

## The Failed Experiment of Vancouver's 2010 Olympic Village

expertise that is forged by facing the consequences of the open market and putting one's own resources and reputation on the line. The following are some of the major lessons learned from the Vancouver experience:

### **1. Politicians Must Act as the Public Trustee First, its Advocate Second**

The last four Vancouver City Councils failed individually and collectively to comprehend what unfolded at the Olympic Village. Rather than be prudent stewards of public funds and the city's good name, they followed the lead of some forceful senior bureaucrats, lobbyists and some in the development and real estate communities who were also their political supporters. The Olympic Village project was very technical and complicated. While most politicians will not have the necessary knowledge, expertise or experience to micro-manage such projects, they are entrusted with the responsibility to ask hard questions and not vote on motions or funding questions that they do not fully understand and that are prone to risk. They should have the strength to challenge and confront their own senior staff and political supporters. There should be no collusion or favoritism. When the Olympic Village file was moved increasingly to closed door meetings, the process should have been halted.

### **2. City Planners and Bureaucrats must be Professional and Objective**

Public servants must remain fair and open-minded and avoid promoting their own agendas. They must be prudent and wise professionals. Most are. While those who worked on the Olympic Village file believe they acted accordingly, their decision making, and certainly the results, have been abysmal. A consistent pattern of questionable actions and poor decisions were first made, then defended, and therefore, compounded. Many of these decisions and actions were ideologically driven and based upon a "smart growth" and green agenda. Many planners saw this file as a once-in-a-lifetime opportunity to enhance their own reputations and marketability. "The city-led development became an exercise in "vanity building."<sup>32</sup>

### **3. Civic Governments Must Operate Openly, Fairly and Prudently**

Civic politicians and their bureaucrats control land use policies and decisions. Money is generated by their decisions. They therefore have the responsibility to be transparent and always accountable. Potential conflicts of interest abound as does the possibility of making incomplete or incorrect decisions because of outside pressures including ideology, incomplete due diligence, favoritism

and cronyism. When a city engages in "deal making" behind closed doors, the benefits granted someone are typically at the expense of others. The windfall benefits to the Vancouver Olympic Village developer are stunning. Now subsequent losses on this project are partially paid through higher housing prices and property taxes, development cost charges and fees. These projects distort open market conditions.

### **4. Beware of Public-Private Partnerships and Their Hybrids**

The Olympic Village is a classic example of what can occur when a private venture is supported by, or merged with, the public interest. The benefits to the taxpayer may often be overstated, while the risks are often downplayed. Often little or no defensible analysis and independent cost benefit analysis are offered to support such decisions. The benefits to the private entity, usually by way of funding, amenities, guaranteed rates of return and promotion will almost always exceed the benefits to a government. Why? The private entity will often leverage its expertise or political connections to extract more and more. These relationships also distort free markets and the discipline that results from having a private firm bearing the total risk of a project—and the funding thereof. These risks and costs are arbitrarily transferred to the taxpayer. And if these projects start to fail, the politicians and bureaucrats who approved and promoted the project must then become advocates and defenders of the failing project. To do otherwise would be an admission of their own failings and culpability. And if a project does fail or underperform other defenses are offered. In the case of the Vancouver Olympic Village, we "were showcasing our city" and "honouring our Olympic commitment," were the city's mantras as losses mounted.

### **5. Politicians and Governments Should Engage from the Start Expert Outside and Independent Advisors and Listen to Them**

The Olympic Village record to date clearly shows that the city did not have the expertise for a project this size. Even a cursory analysis of the decisions and rationale for this project by the bureaucrats and the consultants who were engaged show that most could not see, or chose to avoid the obvious pitfalls this project would face. If some sounded warnings, why were they not heeded? Had totally independent expertise been engaged from the start of this project, it would not have passed the "back of the envelope" analysis—it was this obvious. This is perhaps why such outside advice is either not solicited or is

## The Failed Experiment of Vancouver's 2010 Olympic Village

ignored. Some politicians and bureaucrats do not want their dreams and self-importance questioned, nor are some comfortable with experts scrutinizing their actions). The city chose to dismiss their chief financial officer rather than listen to reason.

### 6. The Development and Real Estate Industries Should Insist on a Level Playing Field with Open Competition and No Favoritism.

That many in Vancouver's development and real estate community defended the city and the Olympic Village developers publicly, despite their private criticism, is telling. Rather than publicly distance themselves from this failure, the parties deemed it more important and expedient to defend the undertaking than state anything that might possibly cool Vancouver's hyperactive real estate market, and their own projects or zoning applications. At the height of the scandal, a leading developer wrote in the local press that if Vancouver forced the Olympic Village developer off the project, it would damage "the project further and dredge up so much toxic mud that City Hall would be shaking right off its murky foundations."<sup>33</sup> What does this tell us about the state of real estate in Vancouver? More important, what happened behind closed doors at City Hall?

### 7. LEED Standards and Its Certification Process Must be Reassessed

Before the Olympic Village was even ready for occupancy, it was proclaimed "the greenest neighborhood on earth." The city gave the project this title. Any certification system that permits self-assessment and reporting is subjective and open to claims of self-serving. Without third-party due diligence and actual performance standards being monitored over time and verified, LEED certification is as much a marketing and promotional standard as an ecological one. Green building technologies are evolving and not always applicable from one ecosystem and climate to the next. The United States and Canadian Green Building Councils are only twelve and nine years old, respectively. Their performance and best-practice databanks are evolving. It is the opinion of the author that a project should have to undergo, say, five years of continuous operations to verify the claims and performance objectives submitted by the applicant before actual LEED certification is granted. If this had been the case, the Vancouver Olympic Village would not have received the LEED certifications nor the awards it did, which were used to partially justify the cost of the units for sale and the city's investment in two developments and subsequent losses.

### 8. The Press and Media Must Remain Objective, Investigate, Verify and Report

The Olympic Village story has been unfolding for more than nine years. The overall coverage by the media, with some exceptions, has not been good. Compromised either by a lack of investigative resources, a willingness to bluntly report facts or a reluctance to criticize some of their major advertisers, the press coverage on this project has been tardy or has reflected only the agendas of the City of Vancouver, the developer, the marketer and the public relation teams. This has increased the exposure of blogs and the alternative press. The traditional media were certainly not the taxpayers' watchdog on this development.

### 9. Governments and Politicians Must Know When to Cut Their Losses.

When this project was conceived, some proponents may have believed that the Olympic Village would be the most sustainable and greenest neighbourhood on Earth, and that Vancouver really was "Futureville." Now the current City Council has adopted, by necessity, a committee to address Vancouver's housing affordability crisis by establishing a "blue ribbon task force to look into the underlying issues of housing affordability...which are threatening to make Vancouver unlivable."<sup>34</sup> The known record shows that the Olympic Village project was destined to underachieve and fail its mandate before the project began and the financial and reputational losses mounted. Yet it proceeded. If elected and non-elected government leaders make wrong decisions, then self-preservation is secondary to their responsibility to the taxpayer. They must mitigate the damages. This has not occurred to date on this project.

What is not fully comprehended by many still, including the city, is that the Olympic Village project continues to burn through cash. For as long as the city owns this asset, and/or is responsible for its upkeep, Vancouver loses millions of dollars in operational and other resources to maintain the project. All professional fees, holding costs, repairs and maintenance and deficiencies are at the full cost and responsibility of the city.<sup>35</sup> These are in addition to the growing financial losses.

These costs and losses are ongoing and significant. The city is reporting gross sales figures from the project, but not fully accounting for, or deducting from these figures the expenses and disbursements. Literally, a significant number of the condominium units' sale proceeds are funding the Village's day-to-day operations, not debt reduction. There is no possibility of breaking even. For

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any residential or corporate tenant with a grievance or complaint, or request for reimbursement, the party accountable to them is the city. And now the Provincial government recently enacted Depreciation Report legislation, which stipulates that all condominium developments must assess their buildings for deficiencies, disclose these and ensure capital reserves are in place sufficient to support replacement and upkeep. The financial obligations of the city are further increased as are its challenges to market and sell the units. As the owner of the project, the city is the guarantor of its integrity. Therefore, the prudent course of action would be for the city to essentially suspend and cap its ongoing financial and operational obligations by selling off the entire project in as orderly a fashion as possible. There is no possibility that any potential lost sales revenue in the future makes a prudent case to hold this asset. The paper profits were long ago lost and the city's objective should be to accept its losses and move on. To properly assess the best course of action requires full and complete disclosure of the files and careful assessment of the true costs and losses to the city. An accurate risk and strategic cost benefit analysis (late in the game, but still necessary) should be conducted by independent experts and a workout plan implemented. The city's liabilities must be mitigated.

Without a full forensic real estate audit of the entire project, it is likely that many key answers will not be forthcoming. In addition, a full real estate audit is the only way to fully quantify this project's losses. Cities and their taxpayers either learn from these mistakes, or inevitably they will be repeated on some form and scale.

### EPILOGUE

Today if one stands in the centre of Vancouver's Olympic Village and looks west, one can see atop a building a neon sign with the name of the occupant, a marketing firm: "Vision Critical." To the east of this sign, on a building owned by the project's sales agent since its inception, Rennie Marketing, one can simultaneously view another neon sign that states "Everything is Going to be Alright."

There was no true vision on this project and as a full and direct consequence, everything is not alright. In the Olympic year of 2010, when this project was to have been sold out and heralded around the world, Vancouver collected \$605.6 million in property taxes from their residents and businesses, fully 63 percent of the year's \$959.8 budget. That a city would gamble the equivalent of

its annual budget and lose in the process at least all of the property taxes its hardworking citizens and businesses paid for one year (maybe more) deserves some very significant explanations and clear accountability.<sup>36</sup> What occurred and continues to unfold at the site known as Vancouver's Olympic Village was, sadly, not a gold medal performance. ■

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# Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

BY RICHARD J. RODDEWIG, CRE, MAI, FRICS; CHARLES T. BRIGDEN, CRE, ASA, FRICS; AND GARY R. PAPKE, CRE, MAI, AICP

## INTRODUCTION: HURRICANE KATRINA AND THE 'LEVEE CASE' CLASS ACTION

*The most important thing to remember about the drowning of New Orleans is that it wasn't a natural disaster. It was a man-made disaster, created by lousy engineering, misplaced priorities and pork-barrel politics. . . . The city's defenses should have withstood its surges, and if they had we never would have seen the squalor in the Superdome, the desperation on the rooftops, the shocking tableau of the Mardi Gras city underwater for weeks. . . . The Federal Emergency Management Agency (FEMA) was the scapegoat, but the real culprit was the U.S. Army Corps of Engineers, which bungled the levees that formed the city's man-made defenses and ravaged the wetlands that once formed its natural defenses . . . one Corps project actually intensified Katrina's surge. After Katrina, a series of investigations ripped the Corps for building flimsy floodwalls in soggy soils, based on wildly flawed analyses—and shoddy engineering was only one way the Corps betrayed New Orleans. . . . By the time [Corps commander Carl] Strock admitted his agency's 'catastrophic failure' eight months after the storm, the U.S. had moved on.*

—Michael Grunwald, "The Threatening Storm"  
*TIME Magazine*, Wednesday, Aug. 1, 2007.

ALTHOUGH THE NATION AS A WHOLE MAY HAVE "MOVED ON" emotionally by mid-2006, eight months after the storm, the residents of New Orleans had not. In the wake of Hurricane Katrina, hundreds of lawsuits (including two major class actions in federal district court) were filed against the U.S. Army Corps of Engineers and others,

## About the Authors



**Richard J. Roddewig, CRE**, is president of Clarion Associates, Inc., Chicago. Roddewig has more than 30 years of experience as a real estate counselor and works on counseling assignments across the United States. Much of his work is focused on expert testimony in large real estate related litigation assignments. He has authored, co-authored, edited or contributed to 11 books and more than 50 articles in professional journals. A past chair of the Midwest Chapter of The Counselors of Real Estate, Roddewig has an undergraduate degree from the University of Notre Dame and both a juris doctor and a master of arts degree from the University of Chicago.



**Gary R. Papke, CRE**, is senior vice president of Clarion Associates, Inc., Chicago. Papke has more than 25 years experience as a real estate and planning counselor, following a ten year career as a public sector planner. In recent years, he has focused much of his work on analysis of the impact of environmental contamination on real estate. He has published articles in *The Appraisal Journal* and *Planning magazine*, and has been an adjunct lecturer at the University of Illinois at Chicago and at DePaul University. Papke holds a bachelor of arts degree in history from Gustavus Adolphus University and a master of urban planning degree from the University of Illinois.



**Charles T. Brigden, CRE**, is vice president of Clarion Associates, Inc., Chicago, and has nearly 20 years experience in real estate counseling and development economics, including major real estate valuation and consulting assignments in more than 25 states. Brigden directs Clarion Associates' valuation and analytical efforts involving large-scale environmental contamination assignments. He holds a bachelor of science degree in architecture and a master of science degree in real estate, both from the University of Wisconsin.

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asserting that the negligence of the defendants in designing and building the dike system protecting New Orleans (as alleged in the *TIME Magazine* piece above) had resulted in “extensive harm and loss of life, and destroying or rendering uninhabitable approximately 160,000 residences and buildings.”<sup>1</sup>

The largest of the class action lawsuits, the so-called “Levee Case”<sup>2</sup> involved somewhere between 140,000 and 180,000 properties in New Orleans proper and parts of Jefferson Parish immediately west of the city itself. The defendants, in addition to the Corps, included two local levee districts, the city, the state, the Port Authority and even the CSX railroad.<sup>3</sup> Taken literally, the proposed Levee Case class included all property, residential as well as commercial/industrial and institutional/governmental, vacant as well as improved, owner-occupied as well as rented, within the geographic boundary of the purported class area encompassing much of the city of New Orleans, as well as parts of Jefferson Parish. This included not only

all of the historic residential neighborhoods of New Orleans, such as the Garden District and the Vieux Carré, but also all of the downtown office buildings, French Quarter restaurants, jazz clubs and hotels, hospitals, schools and even universities, such as Tulane, that suffered damage from flooding.

One of the very first issues that had to be decided in the Case was the question of whether a formal “class” should even be “certified” under federal class action standards at the time<sup>4</sup> as embodied in Rules 23(a) and 23(b) of the Federal Rules of Civil Procedure. Under Rule 23(b) there are two essential inquiries federal courts must undertake in cases involving real estate damages. First, the court must determine whether common questions of law or fact predominate over questions and issues affecting only individual members of the proposed class. Second, the court must determine whether certifying a class will result in a more fair and efficient process for handling damage claims than will a property by property analysis.

Figure 1



## Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

### THE ROLE OF REAL ESTATE COUNSELING IN CLASS ACTION CERTIFICATION HEARINGS

Real estate counseling plays a critical role in class action determinations under Federal Rule of Civil Procedure 23(b). Among the key counseling questions to be answered in the Levee Case were the following:

- What are the types of “real property damages” that Hurricane Katrina caused?
- Is there a common method for distinguishing between the various types of damages caused by Hurricane Katrina? The Levee Case involved only claims for damages due to flooding (not wind or rain). Thus, in order to answer this question, a real estate analyst must be able to distinguish damages due to wind or rain from damages due to inundation/flooding.
- From a real estate counseling perspective, do the variations between properties both before and after Hurricane Katrina make it necessary to consider damages on a property-by-property rather than class-wide basis?
- Is there a uniform, consistent and common method for measuring the impairment to real property caused by Hurricane Katrina? Or can such assessment be made only by rigorous property-by-property analysis in individual damage hearings and determinations?
- What are the appropriate and accepted methods to determine the actual and potential impairment to properties due to inundation/flooding from a hurricane? Can these methods be fairly and efficiently applied by class area-wide or subclass area-wide treatment (as opposed to property-by-property treatment)?
- Are damages due to inundation/flooding from Hurricane Katrina, that may later be determined to be

present at one or more specific properties, likely to be typical of all homes or other properties in the proposed class area, or all homes or properties in any particular subclass or neighborhood, or all homes or properties on a particular block (square) in New Orleans or Jefferson Parish?<sup>5</sup>

- If there are variations in the damages from one property to the next, what are the causes?
- Would the effect of the hurricane on prices and real estate markets be only temporary? If so, how long would the temporary effects last, and how can property owners be fairly compensated for temporary rather than permanent damages?
- Is there any type of “statistical technique,” such as hedonic regression modeling (sometimes called “mass appraisal”), that can fairly and efficiently measure real property damages better than a rigorous property-by-property, block-by-block, and neighborhood-by-neighborhood analysis of the damage to New Orleans?

We were retained by the various law firms and the U.S. Department of Justice representing the Corps and the other public entities (and the CSX railroad) to answer those and other questions related to the appropriateness of class certification.

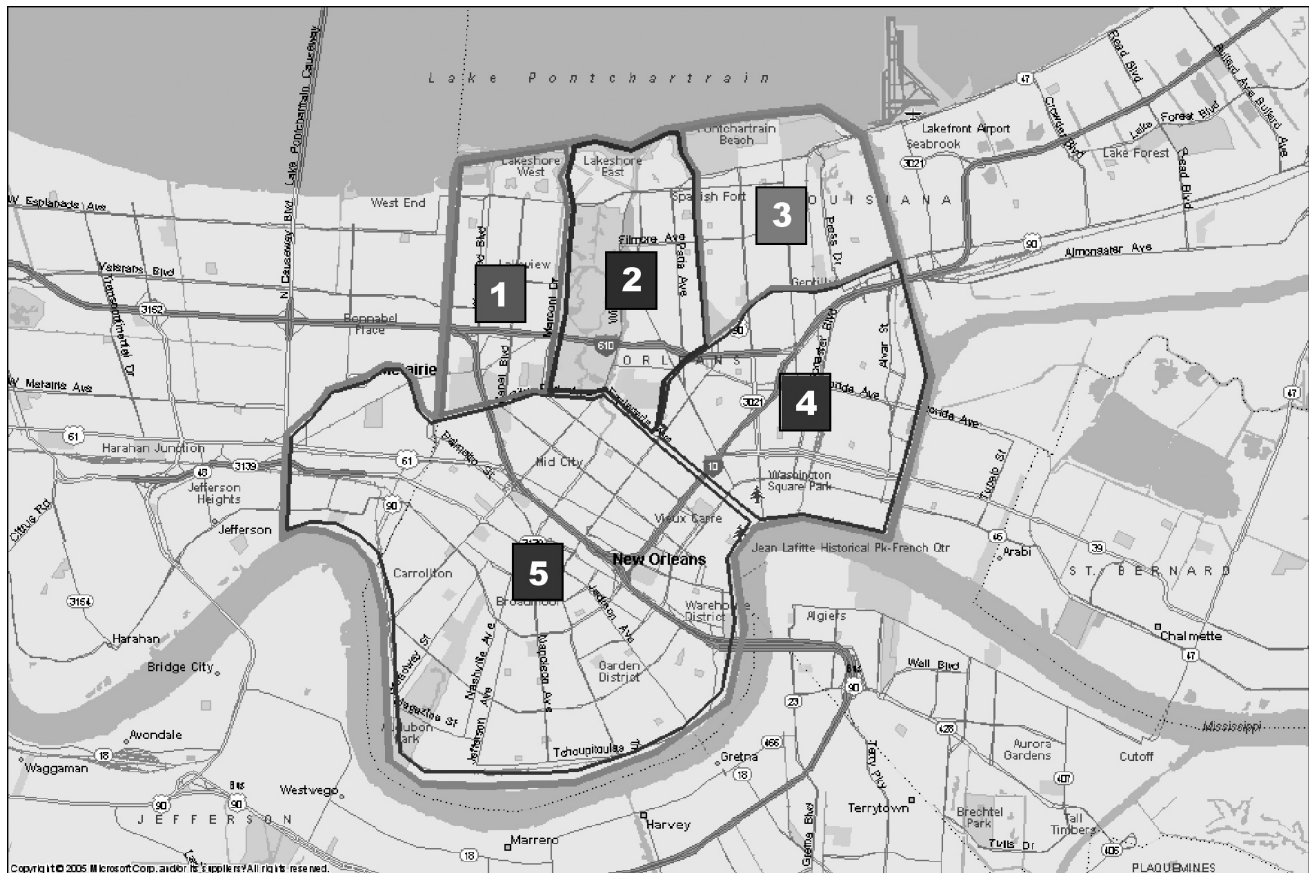
### NEW ORLEANS, ITS NEIGHBORHOODS, AND THE FIVE PROPOSED SUBCLASS AREAS

Attorneys for the plaintiffs in the Levee Case class action proposed “a ‘Greater New Orleans Metro Class’ (GNOM) and five subclasses. As shown in Figure 2, the class and subclasses comprised a very large area, including all of Orleans Parish west of the Industrial Canal and on the East Bank of the Mississippi River, as well as a portion of Jefferson Parish.



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Figure 2  
The Proposed Levee Case Class and Subclass Areas



Source: Clarion Associates, Inc., Chicago

The geographic boundaries defined by the plaintiffs' attorneys' five subclasses correspond to the topography of the class geography—topography being a major factor in determining the source of water and that water's ultimate location.

Figure 2 raised a number of other important real estate counseling questions for us including the following:

- Do the proposed boundaries make any sense from the point of view of generally accepted real estate analytical methods?
- More important, did all properties in each subclass area suffer similar damages due to flooding and similar loss of property values and use and enjoyment?

### SCOPE OF THE COUNSELING RESEARCH AND INVESTIGATION

The scope of the assignment included the following counseling activities:

- Conversations and meetings with attorneys for the defendants and review of the complaints and other pleadings and documents produced in the litigation;
- Review of documents, data and expert reports produced by attorneys for both plaintiffs and defendants;
- Review of books, publications and seminars of the real estate appraisal profession that deal with the valuation of properties potentially damaged by various types of impairments and detrimental conditions;
- Research into past studies of the impacts of flooding events on real estate markets;
- Research on the real estate market in New Orleans "before and after" Hurricane Katrina, including review of newspaper and other press accounts about how various neighborhoods in New Orleans and Jefferson Parish did—or did not—recover during the first two years following the hurricane;

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- Review of maps and data related to flood levels in various parts of the New Orleans metropolitan area as a result of Hurricane Katrina;
- Inspection of the various Orleans and Jefferson Parish neighborhoods proposed to be included in each of the five proposed subclass areas;
- Exterior inspections of the improvements on the properties specifically identified by plaintiffs as “representative” of the entire class, and interior inspections of those properties made available by plaintiffs;
- Review of census data and other demographic information related to the New Orleans metropolitan area, the five proposed subclass areas, and representative neighborhoods selected for purposes of additional market analysis;
- Review and analysis of real estate transaction data in the New Orleans area before and after Hurricane Katrina;
- Review of data and information produced by other demographic and real estate market experts retained by the defendants;<sup>7</sup> and
- Review and comment on real-estate-damages-related expert reports produced by the plaintiffs.

### TYPES OF REAL ESTATE-RELATED HURRICANE KATRINA DAMAGES

Our preliminary review of all that data indicated that Hurricane Katrina caused damage in a variety of ways that included wind damage, rain damage, and damage from windblown objects and toppled trees in addition to damage from flooding. This created issues in the counseling assignment because actual dollar losses due to flooding (the basis for the claims against the Levee Case defendants)<sup>8</sup> had to be separately quantified and differentiated from dollar losses due to wind, rain and other factors. Consider the difficulty, for example, of determining whether the post-hurricane mold infestation in thousands of homes that experienced both wind damage to windows and roofs, as well as flooding, was caused by the floodwaters from breached levees or by the 12-plus inches of rain that fell.<sup>9</sup> Further damage to real property was caused by the subsequent loss of electricity, and to some properties as a result of looting and arson. Our on-site inspections of homes and neighborhoods indicated that the damage varied from neighborhood to neighborhood and even from property to property within the

same neighborhood or on the same block, depending upon the interplay between these various hurricane-related impacts.

From the point of view of the real estate marketplace, we advised our clients that these damage claims could be separated into three broad groups:<sup>10</sup>

- Damages due to the impact of Hurricane Katrina on real estate prices, values, use or marketing time;
- Damages due to increased operating expenses or lost real estate-related income; and
- In certain instances, damages due to property repair or restoration costs that exceed any resulting increases in prices or values over pre-flood levels.

In addition we advised our clients that the damages due to “loss of use and enjoyment” would also vary from property to property, depending on answers to the following additional questions:

- Has the property already been sold to a “post-Katrina” buyer or is it still being held by the “pre-Katrina” owner?
- Is the property an owner-occupied property or is it rented to a tenant?
- Has the property already been repaired/rehabilitated post-Katrina, or is it still awaiting repair?

### ACTUAL IMPACTS ON POST-KATRINA PURCHASE PRICES VERSUS POTENTIAL IMPACT ON FUTURE PRICES/VALUES

Our research indicated that in the first two years following the hurricane there had been more than 6,900 real estate transactions in those portions of New Orleans and Jefferson Parish in the proposed Levee Case class area. Therefore, of the thousands upon thousands of properties in the proposed Levee Case class area, real estate damages to at least 6,900—and likely many hundreds or thousands of additional properties<sup>11</sup> sold post-Katrina—had to be measured in terms of a comparison between: (1) the actual price received in a completed post-Katrina real estate transaction; and (2) the expected price had Katrina not hit the city.

Among the questions related to real estate-related damages with respect to each property in the Levee Case class that sold post-Katrina were the following:



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- Was the purchase price lower than it would have been in the absence of Hurricane Katrina?
- Was the marketing time longer than it would have been if the hurricane had never happened?<sup>12</sup>
- Was the cost of sale higher than it would have been in the absence of Hurricane Katrina?
- Did the sale occur before or after post-Katrina repair/rehabilitation, and did the owner recoup some or all of the repair/rehabilitation costs in the sale price?

For properties that had not yet sold post-Katrina, the damages inquiries and calculations were substantially different. To determine damages that may be incurred by future sellers of properties, the following questions, among others, needed answers:

- What is the current market value of each of the properties in the proposed Levee Case class area?
- How will the current market value of each property change in the future as the New Orleans real estate marketplace continues to recover from Hurricane Katrina?
- How long will it take for prices, marketing times, and costs of sales in the New Orleans real estate marketplace to recover from Hurricane Katrina?
- Which, and how many, properties would likely sell during the period of time when the New Orleans marketplace is still recovering?
- If the property has been repaired/rehabilitated post-Katrina, will the future sale recoup some or all of the repair or rehabilitation expenditure?
- When is the appropriate specific date in time to measure all of the potential types of damages to as-yet-unsold properties?

### IMPACTS ON OWNER-OCCUPIED VERSUS RENTED PROPERTIES

The damage calculations (and real estate price/value issues) were also quite different for rental properties than for owner-occupied properties. According to the 2000 census, only about 46.5 percent of the 188,251 occupied housing units in the area were owner-occupied. The remaining 53.5 percent were occupied by tenants.<sup>13</sup> That meant there were about 100,000 rented homes and apartments potentially impacted by Hurricane Katrina.

In addition there were tens of thousands of non-residential structures including office buildings, retail stores, restaurants, gas stations, hotels, industrial buildings, warehouses, etc., in the proposed Levee Case class area. Many, if not most, of these income-producing properties were rented to tenants pre-Katrina. The damage calculations for each of these types of rental properties would be quite different (and possibly more complex) than those for owner-occupied single-family residences.

The damage calculations for a non-residential property would depend upon its pre-Katrina status as owner-occupied or tenant-occupied. Among the additional damage issues/questions for rented, income-producing properties, were the following:

- What was/were the market rental rate(s) for the property pre-Katrina compared to post-Katrina?
- What was/were the actual contract rent(s) for the property pre-Katrina compared to post-Katrina?
- Is/are the post-Katrina contract rent rate(s) higher or lower than the market rent pre-Katrina?
- What was/were the remaining term(s) of the lease(s) pre-Katrina and what is/are the remaining term(s) of any post-Katrina lease(s)?
- What was the vacancy rate and collection loss factor pre-Katrina and what is it post-Katrina?
- What were the operating expenses pre-Katrina and what are the post-Katrina operating expenses?
- What was the net operating income pre-Katrina and what is it post-Katrina?
- For properties not yet sold post-Katrina: What are the likely future rental rates, operating expenses, vacancy rates, and net annual incomes between current date and date of sale?
- What is the investment risk profile change, if any, comparing pre-Katrina and post-Katrina market and property circumstances?

We advised the clients that answering all of those questions required property-by-property analysis, including analysis of actual lease terms and rents both pre-Katrina and post-Katrina. As indicated by “is/are,” etc., in the above questions, properties with multiple tenants at various rents added to the amount of data needing collection and analysis.

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The residential rental market presented its own special challenges for our research. Complicating the analysis for determining damages for residential rental properties was the fact that “fair market rents rose an astounding 39 percent from 2005–2006 as renters and displaced homeowners scrambled for the little available habitable rental housing in the New Orleans area.”<sup>14</sup> According to a University of New Orleans study, there had been “an immediate post-storm average rent increase of 42 percent” in Orleans Parish, followed by a “more moderate 5.5 percent” rise through the fall of 2006.<sup>15</sup> And a Brookings Institution study of the New Orleans rental market concluded that rents in 2007 “began to stabilize at these higher levels.”<sup>16</sup> As a result, for residential rental properties in neighborhoods where flood levels were very low and damage could be quickly repaired, the hurricane may actually have increased income and property values.

Once again, we advised the clients that neighborhood-by-neighborhood and property-by-property analysis was the only way to identify those owners of rental housing in the proposed Levee Case class area who had been (temporarily) realizing higher rents during some or all of the post-Katrina period. The net impact of these higher rents might be somewhat mitigated by higher rental property operating expenses post-Katrina;<sup>17</sup> but only a property-by-property comparison of pre- and post-Katrina net operating incomes could fairly and accurately determine the appropriate damage payments to owners of residential rental properties.

Rental increases were also a factor in analysis of the rental market for other types of properties, such as offices and retail stores. In some submarkets, minimally damaged office or retail structures had been able to command higher net rents (after considering any additional operating expenses) for some or all of the post-Katrina period. Neighborhood-by-neighborhood and, in many if not most cases, building-by-building analysis was necessary.

For example, a University of New Orleans study<sup>18</sup> of rents in 14 downtown New Orleans Class A high-rise office buildings found that pre-Katrina rents between January and August of 2005 averaged \$15.42 per square foot compared to fall 2006 rents averaging \$16.60 per square foot, a 7.65 percent increase. Some downtown buildings damaged only slightly by wind, rain or flooding benefited from tenants’ leaving more heavily damaged buildings. Other downtown office buildings remained unoccupied

for a year or more after Katrina.<sup>19</sup> By comparison, in other neighborhoods, or for other types of office buildings, rents increased only modestly, if at all. Once again, as for apartments and rental housing, expenses had typically increased, requiring careful property-by-property comparison of income and expenses pre- and post-Katrina.

The retail sector also would have to be analyzed on a property-by-property basis. Some retail properties were devastated by Katrina, while others were repaired quickly and reopened. A University of New Orleans study reported in March of 2007 that “large amounts of retail space remain unavailable for occupancy” and “some of this space has been or is scheduled for demolition, while the future of other space remains unclear.”<sup>20</sup> In some neighborhoods, Walgreen’s stores, for example, reopened quickly, while competing Rite-Aid stores, sometimes at the same intersection, had not yet reopened even two years after the storm. Gas stations, convenience stores and fast-food restaurants exhibited the same pattern in many New Orleans neighborhoods—some reopened quickly after Hurricane Katrina while others were still closed. Since rent for retail stores is a function of their ability to generate sales, individual analysis of most retail stores would also be necessary.<sup>21</sup>

Hotels were another real estate category in which a wide variety of potential damage scenarios were likely. Some high-rise hotels in downtown New Orleans were heavily damaged by wind and rain, and were closed for repairs for many months following the storm. Others, either not damaged or only lightly damaged, reopened quickly. Some hotels that were able to reopen quickly were able to sign agreements with businesses, corporations, federal agencies or others to provide temporary housing or accommodations for displaced employees, contractors working on recovery efforts, or FEMA and other state/federal agency staffs during their stays in New Orleans. Such contracts, and the resulting impact upon the income stream, needed to be analyzed relative to pre-Katrina circumstances, with room rates, occupancies, etc., likely to vary substantially on a property-by-property basis.

Similarly, some parcels of vacant land, or parking lots, had been rented as temporary FEMA trailer parks, as temporary demolition debris landfills, or as construction material and equipment staging and storage sites. The temporary income from those uses had to be taken into

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account when calculating the overall impact of Katrina on land values in many neighborhoods. Once again, this would require property-by-property analysis.

### PAST STUDIES OF HURRICANE AND FLOOD EVENTS INDICATE THEY HAVE TEMPORARY IMPACTS

We researched the published literature to learn how other real estate markets had responded to serious flooding events. We discovered that past flooding events (some related to hurricanes) had been studied in a number of situations in the United States, Australia and the United Kingdom. Some of the studies found that real estate markets recovered quite quickly while others found longer periods of recovery. Virtually all of the studies agreed, however, that flooding events produced temporary rather than permanent impacts on prices and values. A number of the studies found that impacts were highly variable, with some properties, property types and neighborhoods recovering faster than others.

Among the conclusions in these studies were the following:

- A survey of the published literature on the impacts of flooding events on real estate markets concluded that “findings from these researches vary greatly.”<sup>22</sup> The survey of the literature concluded, however, that “the impacts of flood events on property values tend to reduce with time elapsed from the event.”<sup>23</sup>
- A study of the real estate impact of the 2000–2002 floods in Great Britain, based on interviews with real estate appraisers, concluded that there is a “progressive, though highly variable, recovery of value over several years provided there is no recurrence.” The study found a median duration of three to four years but “no consensus on how long it takes a flooded property to recover its pre-flood value.”<sup>24</sup>
- A study of the real estate market in an Australian town that was completely flooded in 1990 found that the market recovered within 18 months.<sup>25</sup> The study also found that “trading in property never stopped and there was evidence of entrepreneur activity with houses bought at a discount just after the flood appearing again on the market within four years at a greatly increased price.”<sup>26</sup>
- A study of the real estate market reaction to flooding in two California towns found that properties “did eventually recover to near pre-flood levels, but the length of time that this recovery took varied with

depth of flooding.”<sup>27</sup> Houses with lower flood levels recovered quickly and sold at higher prices. In neighborhoods with the greatest flood depths, houses took more than ten years to recover, due in part to the number of abandoned houses in those neighborhoods even many years after the flooding event.

- A study of the housing market in two Houston subdivisions in the wake of widespread 1979 flooding found no decline in housing prices immediately following the flood. Instead, a decline occurred “about one year later when federal flood insurance rates increased substantially.”<sup>28</sup>
- A study of the published literature on flooding impacts found that the impacts varied from one event and location to another. The literature reviewer concluded that “variables other than flooding,” such as variations in neighborhood and property characteristics, were the most important reasons for different impacts: “The factors influencing residential property values are numerous (and to an extent, culturally dependent): lot size; building size; construction type; building age; state of deterioration; number of bedrooms; built-in wardrobes; en-suite bathrooms; carpets; standard of kitchen; garages; swimming pool; constraints on the owners’ ability to develop their home; proximity to shops, transport, schools and work; exposure to air or vehicular traffic noise; local supply and demand; mortgage interest rates; etc.” The author warned that “failure to consider submarkets could lead to incorrect interpretations.”<sup>29</sup>

In the Gulf Coast region of the U.S. there were two clear examples supporting the notion that property value impacts from flood events reduce with the passage of time. The first was Hurricane Betsy, which struck the greater New Orleans area in 1965 and caused extensive flooding in much of the city, including some of the proposed class area. This event was eventually forgotten entirely and/or ignored in the real estate marketplace (residential, commercial, etc.), as particularly evidenced by new development projects in areas that had been seriously flooded and continued to be generally exposed to the same (or possibly even greater) flood risks. In similar fashion, the Gulf Coast of Mississippi was devastated by a 30-foot storm surge associated with Hurricane Camille in 1969. Yet the areas destroyed were virtually entirely redeveloped and even more dynamically so (i.e., multiple casino projects introduced with costs in the

## Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

hundreds of millions of dollars), though the risk of hurricane/flood damage remained unchanged.

The reaction of those real estate markets in the wake of past flooding events generally confirmed the existence of a “detrimental condition life cycle,” a concept generally recognized by the professional real estate appraisal community. The consensus is that the effect of a detrimental condition, such as may be caused by a hurricane

was no “one size fits all” damage calculation or formula for a particular block, thus no uniform and consistent method for determining damages to all 140,000 to 180,000 properties in the proposed Levee Case on a class basis.

Some key characteristics of the case study areas are summarized in Figure 3.

We began by establishing a boundary for a study area

Figure 3

### Clarion Analysis: Selection of the Five Subclass Case Study Areas

Study Area	Properties in Study Area	Proposed Representative Property	Proposed Subclass	City Planning District
“Belfort”	130	3221 Belfort Avenue	Subclass 2	Mid-City
“Catina”	170	6574 Catina Street	Subclass 1	Lakeview
“Edinburgh”	138	7726 Edinburgh Street	Subclass 5	Mid-City
“Gaines”	90	4656 Gaines Street	Subclass 3	Gentilly
“Stutz”	82	4024 Stutz Street	Subclass 4	Bywater

Source: Clarion Associates, Inc., Chicago

on real estate prices and values, can change over time and, when an impact does occur, is typically temporary rather than permanent.<sup>30</sup>

#### MAKING THE CASE FOR PROPERTY-BY-PROPERTY VERSUS CLASS-WIDE DAMAGES ANALYSIS— IDENTIFICATION OF CASE STUDY AREAS

While all of our research confirmed the need for a rigorous property-by-property analysis as the only way to fairly and accurately assess the damage caused by Katrina flooding, the lawyers with whom the authors were working were concerned that we needed a graphic way to express all of this in a simple and convincing fashion to the federal district court judge.

We recommended that our clients present to the judge some examples of the complexity of the needed analysis. We suggested choosing a representative block or neighborhood in each of the five proposed subclasses and showing graphically how varied these smaller areas were in terms of the factors needing analysis. Each of these study areas was centered on one of the 42 named properties identified by the plaintiffs in each of the five proposed subclass areas.

The purpose of the exercise was to demonstrate that, on a block-by-block basis, there were a variety of factors affecting the actual damage calculation. We believed there

surrounding each of the representative properties, using the following criteria:

- All properties within the city block or square that included the subject property;
- All properties in blocks or squares adjacent to the block that included the subject property.

Boundaries were adjusted for block configuration factors and important neighborhood dividing features (e.g., major arterial streets, railroad corridors, etc.).

From public records, private data services, and data collection in the field, we obtained the following information for each property in each of the five study areas:

#### PROPERTY RELATED DATA

- Address and zip code
- Parcel area
- General property use category and detailed use description (as observed)
- Legal description
- Owner of record
- Construction type
- Stories
- Elevation of first habitable floor



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### STORM RELATED DATA

- Reported flood elevations
- FEMA damage assessment information
- Photos post-storm

### POST-STORM DATA

- Demolition permits and field observation
- City permits issued
- FEMA trailer status
- Road Home program recordings
- Observations of repair and reconstruction
- Observations of re-occupancy
- Base and post-storm utility utilization
- Blight adjudication status

### REAL ESTATE TRANSACTION DATA

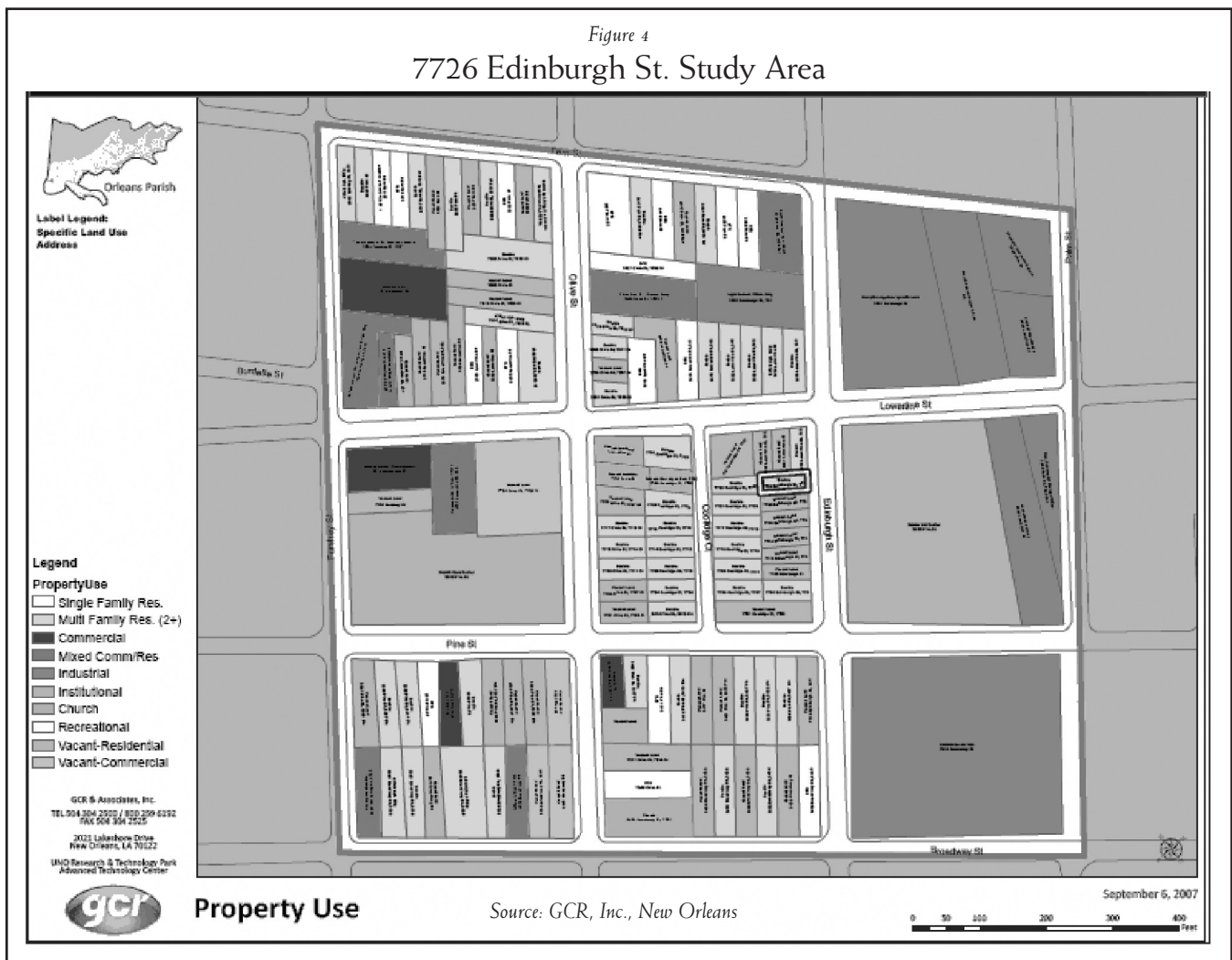
- Pre-storm real estate transactions
- Post-storm real estate transactions

We then prepared study area maps focused on three key factors: (1) the variety and pattern of property uses found in each area; (2) variations in the elevation and likely degree of flooding suffered by the various properties in each area; and (3) variations in the patterns of post-Katrina repair and reoccupancy of structures in each area.<sup>31</sup>

### VARIATIONS IN PROPERTY USE IN THE STUDY AREAS

Figures 4, 5 and 6 show the Edinburgh study area, the most diverse of the study areas in terms of land uses. Only 12 percent of the properties were in single-family use while about 37 percent were in multi-family use. Significant numbers of properties were in various other categories of commercial, industrial and institutional use.

Figure 4  
7726 Edinburgh St. Study Area





# CASE STUDY

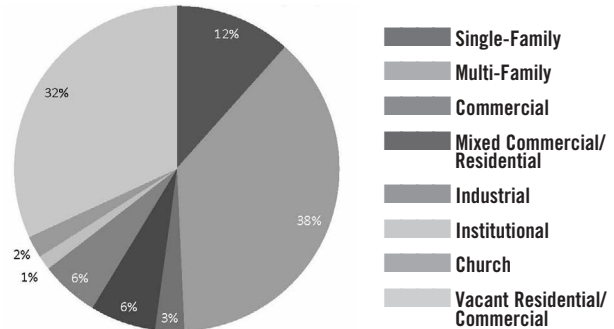
## Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

Figure 5  
Edinburgh Property Use

Single Family Residential	16
Multi-Family Residential	52
Commercial	4
Mixed Commercial/Residential	9
Industrial	8
Institutional	2
Church	3
Vacant Residential/Commercial	44
	138

Source: Clarion Associates, Inc., Chicago

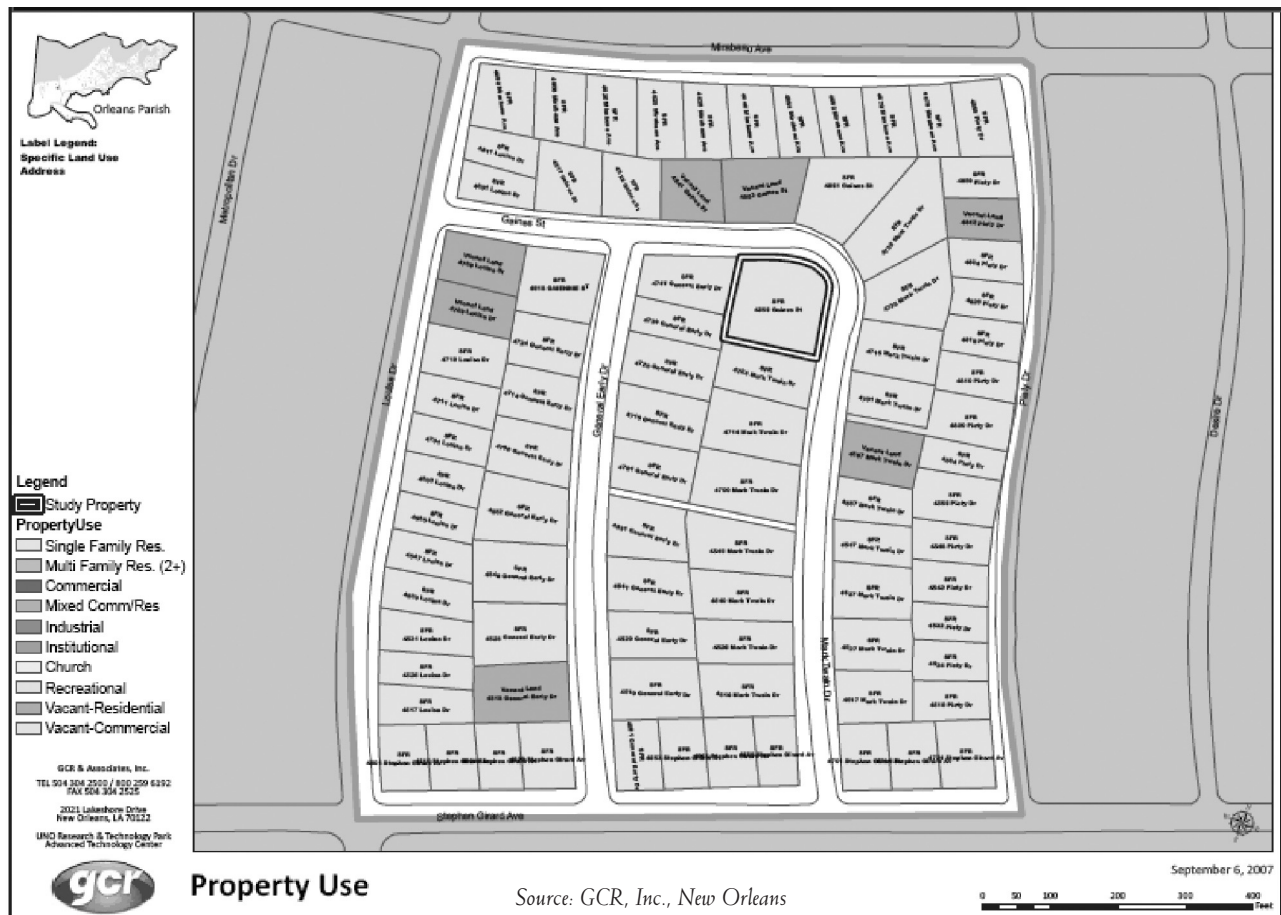
Figure 6  
Edinburgh Property Use



Source: Clarion Associates, Inc., Chicago

By contrast, the Gaines study area was almost exclusively in single-family use as shown in figures 7, 8 and 9 below:

Figure 7  
4656 Gaines St. Study Area



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Figure 8

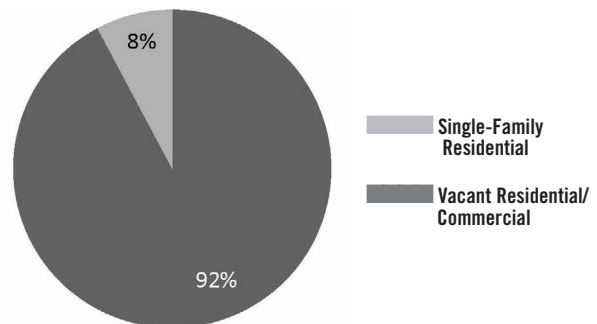
### Gaines Property Use

Single Family Residential	83
Vacant Residential/Commercial	7
	90

Source: Clarion Associates, Inc., Chicago

Figure 9

### Gaines Property Use



Source: Clarion Associates, Inc., Chicago

### VARIATIONS IN FLOOD LEVELS IN THE STUDY AREAS

Flood levels in the proposed Levee Case class areas ranged from as little as zero in the Belfort and Stutz neighborhoods to as much as ten feet or greater in the Catina Street neighborhood.

That variation in flood levels was also represented in our study areas. More significant was that within the same neighborhood and even the same block, there could be considerable variation in the effects of flooding. Many houses in New Orleans were built with elevated first floors, some elevated substantially. As a result one house on a block might have suffered little or no interior flooding, while all of the neighboring houses were flooded to a depth of one to four feet.

Representative properties in two study areas are shown in Figure 10 below. In the left photo, the house in the middle has its main living area built above a front entrance garage. The house next door (to the right) has a slightly elevated first floor. The estimated high water mark from flooding in this neighborhood ranged from 1.5 to 2.0 feet. In the photo on the right, the single-story home would have been completely inundated by the estimated 6.5 feet of floodwater in this neighborhood; the neighboring two-story home would have had only its first floor (that was largely unimproved and unoccupied) flooded.

Figure 10

### Homes in Two Study Areas



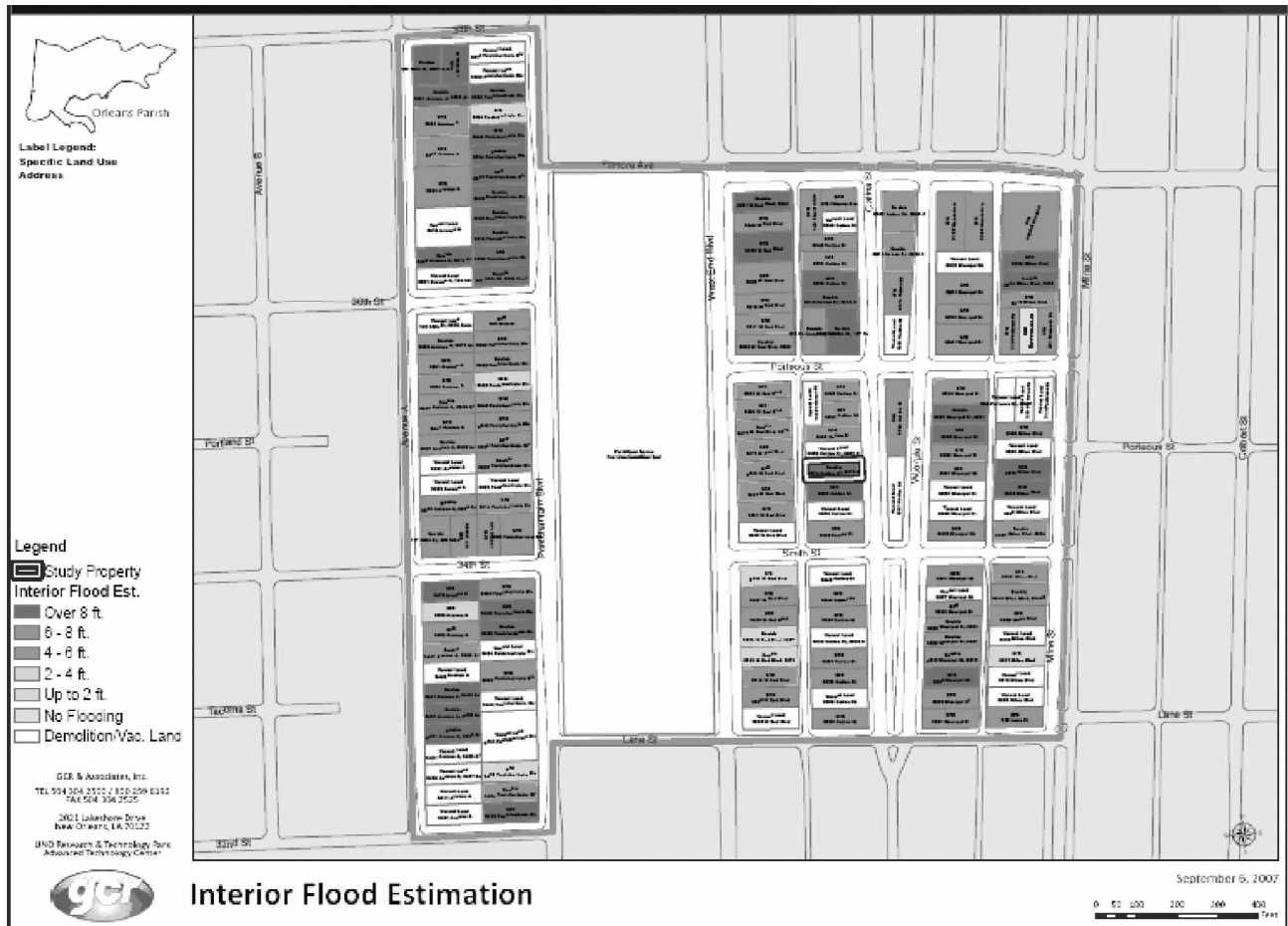
Photos courtesy of Charles Brigen

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Figures 11, 12 and 13 show the wide range of flooding in the Catina Street study area. One house suffered no reported interior flooding while 34 of the 170 properties

in the study area had interior flooding in excess of eight feet, with some exceeding 10 feet or more.

Figure 11  
6574 Catina St. Study Area



Source: GCR, Inc., New Orleans

Figure 12

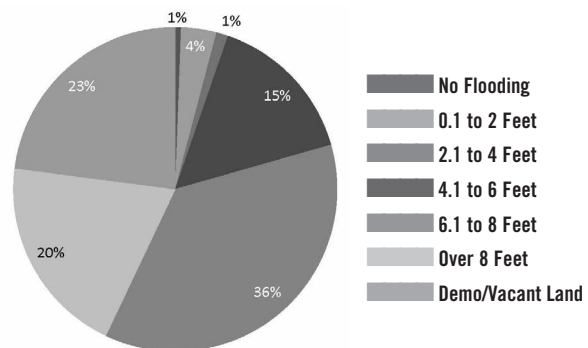
### Catina Depth of Habitable Floor Flooding

No Flooding	1
0.1 to 2 Feet	6
2.1 to 4 Feet	2
4.1 to 6 Feet	26
6.1 to 8 Feet	62
Over 8 Feet	34
Demo/Vacant Land	39
	<b>170</b>

Source: Clarion Associates, Inc., Chicago

Figure 13

### Catina Depth of Habitable Floor Flooding



Source: Clarion Associates, Inc., Chicago

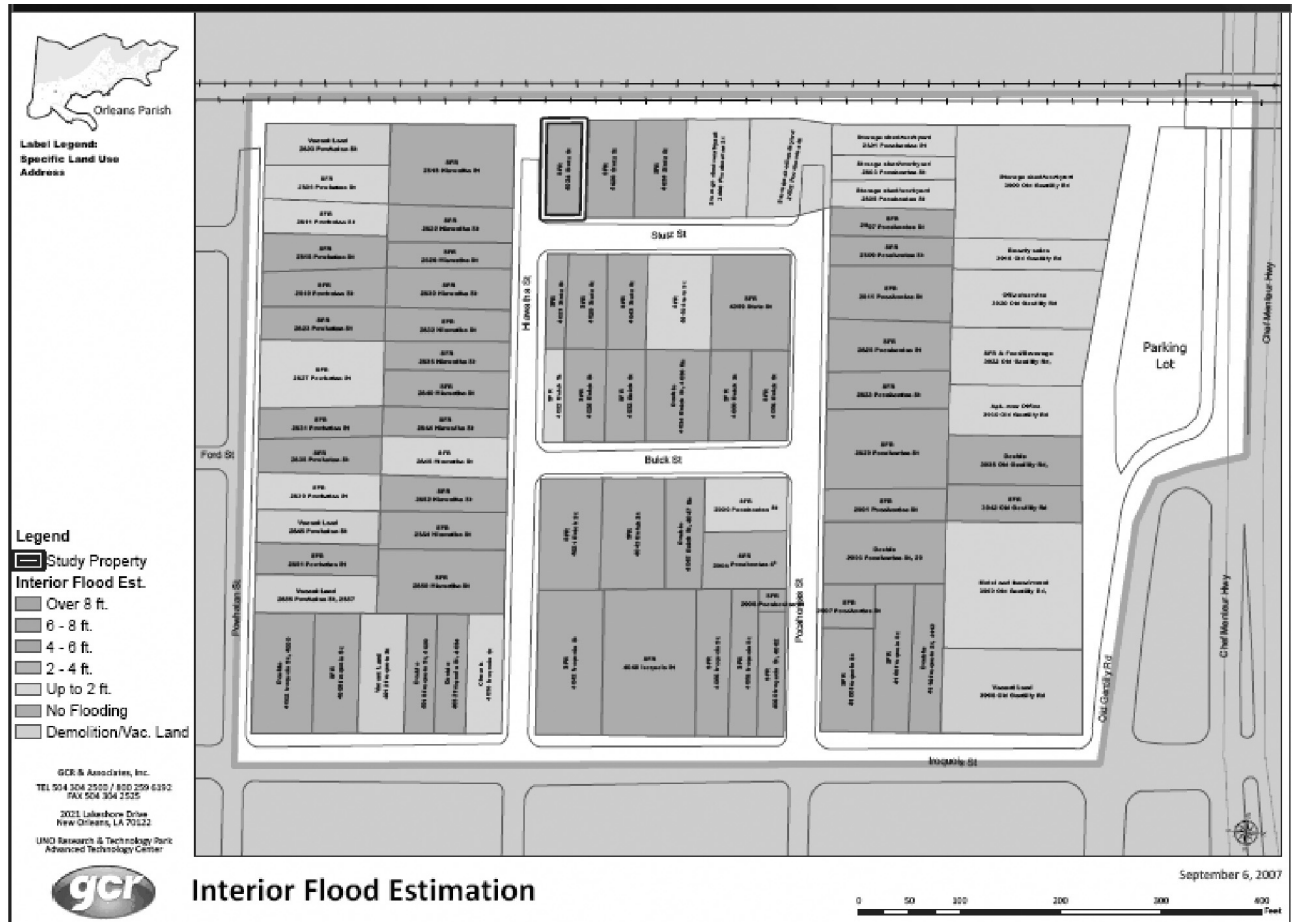
# CASE STUDY

## Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

Contrast the wide variation in flooding in the Catina study area with the flooding in the Stutz study area. About 56 of the 82 properties in the Stutz study area, as

shown in Figure 14 below, suffered no interior flooding. But even in that neighborhood, one house was flooded to a depth between two and four feet.

Figure 14  
4024 Stutz St. Study Area



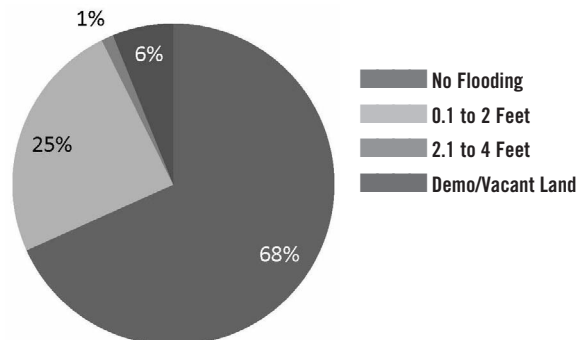
Source: GCR, Inc., New Orleans

Figure 15  
Stutz  
Depth of Habitable Floor Flooding

No Flooding	56
0.1 to 2 Feet	20
2.1 to 4 Feet	1
Demo/Vacant Land	5
	82

Source: Clarion Associates, Inc., Chicago

Figure 16  
Stutz  
Depth of Habitable Floor Flooding



Source: Clarion Associates, Inc., Chicago

## Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

The reason for the relative lack of interior flood damage in the Stutz study area was quite clear—more than 74 percent of the structures had a first floor that was

elevated between two and four feet above grade, as shown in figures 17 and 18 below.

Figure 17

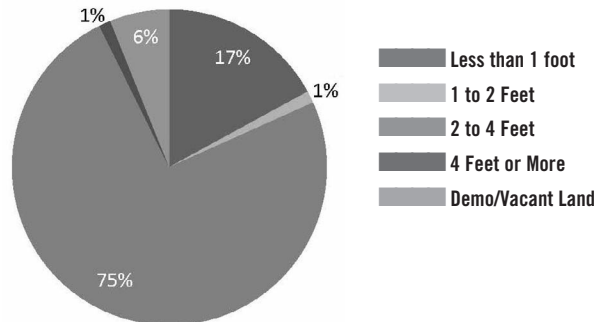
### Stutz Elevation of First Floor Above Street

Less than 1 Foot	14
1 to 2 Feet	1
2 to 4 Feet	61
4 Feet or More	1
Demo/Vacant Land	5
	<hr/> 82

Source: Clarion Associates, Inc., Chicago

Figure 18

### Stutz Elevation of First Floor Above Street



Source: Clarion Associates, Inc., Chicago

By contrast, in the Catina study area there was a much greater variation in first floor elevations, as shown in figures 19 and 20 below, accounting for the wider variation in interior flooding.

Figure 19

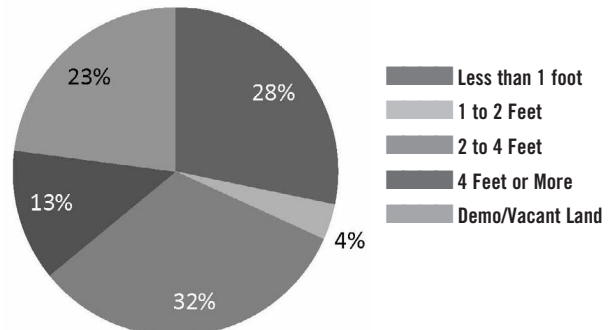
### Catina Elevation of First Floor Above Street

Less than 1 Foot	48
1 to 2 Feet	6
2 to 4 Feet	55
4 Feet or More	22
Demo/Vacant Land	39
	<hr/> 170

Source: Clarion Associates, Inc., Chicago

Figure 20

### Catina Elevation of First Floor Above Street



Source: Clarion Associates, Inc., Chicago

### PROPERTY REPAIR/NEIGHBORHOOD RECOVERY STATUS IN THE STUDY AREAS

Some neighborhoods in New Orleans recovered faster than others. The neighborhoods where residents returned quickly had less chance of suffering from extended vacancy, mold damage, vandalism and other post-Katrina

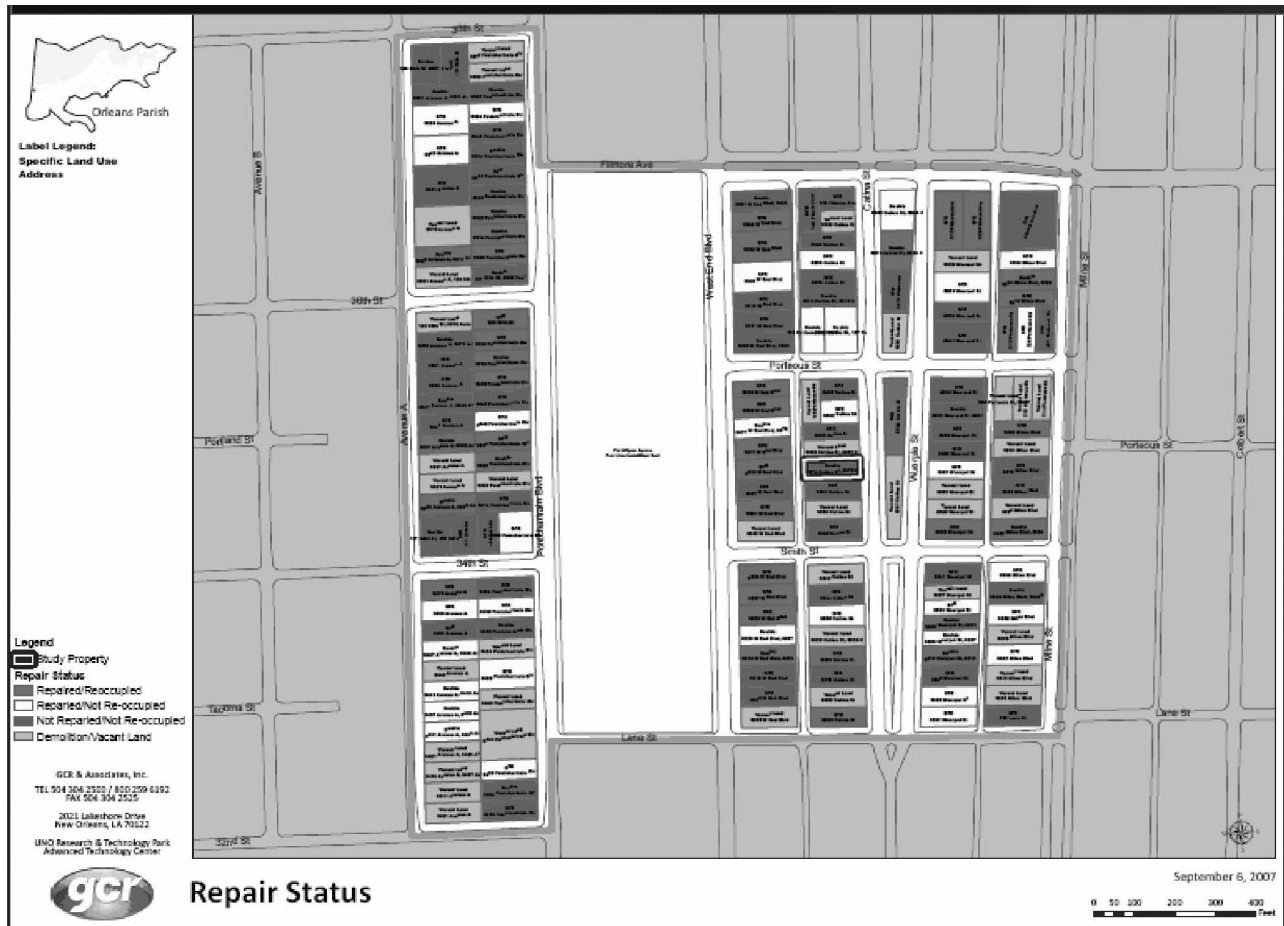
problems. Figures 21, 22 and 23 show the status of the Catina study area about two years after the hurricane. About 22 percent of the properties in the neighborhood had been repaired and reoccupied, another 20 percent repaired but not reoccupied, and 35 percent still unrepaired and unoccupied.



# CASE STUDY

## Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

Figure 21  
6574 Catina St. Study Area



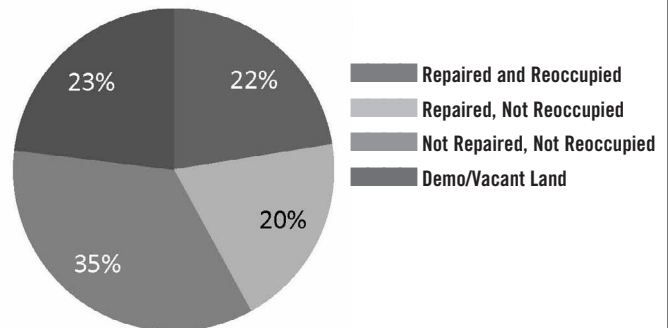
Source: GCR, Inc., New Orleans

Figure 22  
Catina  
Repaired/Reoccupied Status

Repaired and Reoccupied	38
Repaired, Not Reoccupied	33
Not Repaired, Not Reoccupied	59
Demo/Vacant Land	39
	<b>169</b>

Source: Clarion Associates, Inc., Chicago

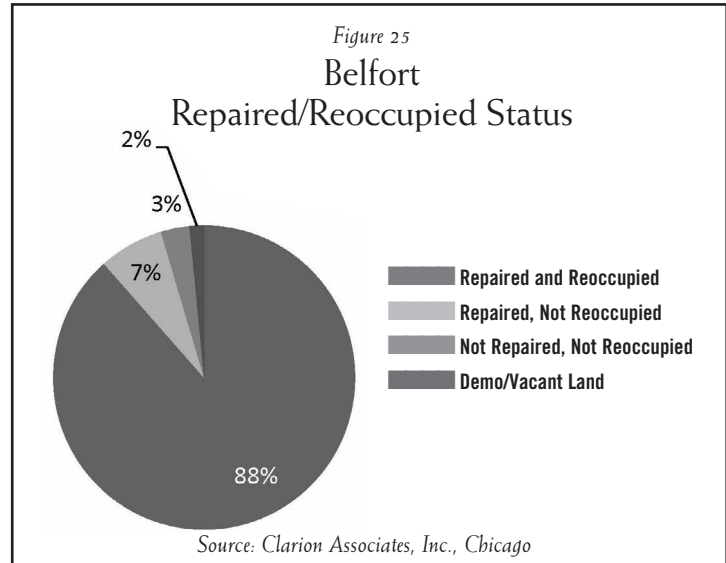
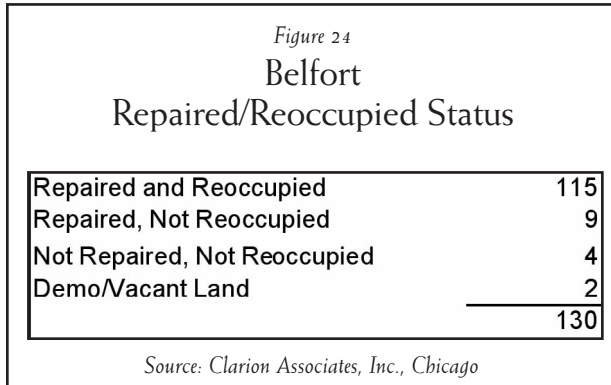
Figure 23  
Catina  
Repaired/Reoccupied Status



Source: Clarion Associates, Inc., Chicago

## Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

Contrast the Catina study area repair/reoccupy situation with the Belfort study area, where two years after the hurricane 88 percent of the structures had been repaired and reoccupied, as shown below.<sup>32</sup>



### COULD A STATISTICAL METHOD SUCH AS HEDONIC REGRESSION MODELING HAVE DEALT WITH ALL THESE ISSUES AND ACCURATELY DETERMINED DAMAGES?

Attorneys for the plaintiffs claimed that a statistical model such as hedonic regression modeling could have fairly and accurately determined damages on a class-wide basis.

In theory, perhaps. In reality, no. Many in New Orleans did try to determine values in the wake of Hurricane Katrina using automated valuation models and other forms of computerized statistical analysis, including regression modeling. Newspaper reports and analysis of the results by Louisiana state agencies demonstrated the inaccuracies of the attempts.

For example, the Road Home program<sup>33</sup> considered but ultimately rejected the use of local parish tax assessment mass appraisal techniques to establish pre-storm home values. The program managers concluded that such computerized statistical values were highly inaccurate and prone to error when used to establish pre-storm market values. So the program managers then developed their own Automated Valuation Model (AVM).

However, by December 2006, it became clear that the AVMs being used were also subject to a high error rate: “The problems [with AVMs] seem most acute in Orleans Parish, where neighborhoods with checkerboard

demographics and home values aren’t well-suited to ‘average’ calculations of value used in the automatic assessments.”<sup>34</sup> By mid December 2006, the Louisiana Office of Community Development had also acknowledged “serious problems with use of the Automated Valuation Method.” By January 2007, the Road Home program had decided to commission individual property appraisals using local New Orleans appraisers “for as many properties as necessary to get the values right.”<sup>35</sup> In June of 2007, *The Times-Picayune* was still reporting that “the preponderance of erroneous computer-generated values remains one of the biggest bottlenecks in the troubled [Road Home] homeowner aid program.”<sup>36</sup>

Nationally, at the time of Hurricane Katrina, the principal realm in which AVMs were being used regularly was in the packaging of home loans in the secondary mortgage market, where the inaccuracies of AVM value determinations on a property-by-property basis could be balanced against the relatively low loan-to-value ratios and large number of properties in the portfolios. Yet even in the secondary markets, AVMs had been “unable to capture more than the 20 percent share of the greater collateral valuation market that it has taken five years to attain *because regulators and lenders are concerned about the accuracy and appropriateness of AVM values without the involvement of an appraiser.*” [Emphasis added.]<sup>37</sup> Because of their inaccuracies, the home lending industry had not

## Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

been widely utilizing AVM products to determine the value of individual properties for mortgage origination: “The reluctance to use this product [AVMs] for first mortgages is due to uncertainty concerning the reliability of the product in high loan-to-value situations.”<sup>38</sup>

Given the unusual character of so many New Orleans neighborhoods even before Katrina, and the additional peculiar circumstances affecting so many New Orleans neighborhoods in the wake of Katrina, AVMs would have been particularly inaccurate at comparing values “before and after” the hurricane hit the city. AVMs have been found to be particularly inaccurate in the valuation of a widely disparate group of properties, or in neighborhoods with a wide variety of unusual property characteristics, as evidenced by the following:

- “AVMs’ accuracy tends to suffer in areas where local housing is highly heterogeneous or where there is a lack of sufficient long-term data . . .”<sup>39</sup>
- “AVMs cannot observe the subject, its condition, safety hazards, lot utility, view, traffic conditions, adjacent negative land uses. They cannot tell if it is really a house (a highest-and-best-use issue). They work poorly for unique properties and for mixed neighborhoods. They can err greatly in either direction.”<sup>40</sup>
- “They [AVMs] must somehow try to adjust for every possible unusual condition, atypical property or different circumstance—an almost impossible challenge.”<sup>41</sup>

But what about formal hedonic regression modeling? Could a model have been developed that would account for every conceivable pre-Katrina independent variable affecting prices in all of the city’s neighborhoods and then determine and distinguish between the effect of Katrina’s wind damage and flooding damage on a neighborhood-by-neighborhood basis?

Courts and judges are increasingly tempted to believe that such statistical studies of real estate markets can be crafted in a way that the damage determinations are fairer and more accurate than property-by-property appraisals.<sup>42</sup>

However, many in the academic community disagree with that assessment. Even some of the strongest advocates of the use of statistical models—used to measure various types of real estate “attributes” and “detriments”—acknowledge the fundamental proposition that hedonic modeling must be applied to a homogeneous market for

the results to have any validity.<sup>43</sup> This makes regression analysis particularly difficult to apply to New Orleans, a city widely recognized to have a multitude of smaller neighborhood submarkets, each with particular market characteristics.<sup>44</sup>

Even if the number of submarkets could be carefully identified and delineated on a map, the number of sales within each submarket might not be sufficient to support the use of hedonic modeling.<sup>45</sup> And given the wide variation in neighborhood and property characteristics before and especially after Katrina hit New Orleans, application of even the most rigorous hedonic modeling post-Katrina would have resulted in widely variable and inaccurate results.<sup>46</sup>

And then there is the additional problem of properly accounting for all of the pre-Katrina and post-Katrina variables in any such model. As pointed out in a Summer 2006 *Real Estate Issues* article by Albert Wilson: “By definition, the hedonic regression modeling ‘analyst chooses a set of independent variables from—in the case of real estate—a very large set of possible variables.’”<sup>47</sup>

That points to the fundamental problem affecting the reliability of hedonic regression modeling: No model can properly account for all of the independent variables that affect prices paid for real property.<sup>48</sup> George Lentz and Ko Wang summarize this fundamental problem as follows:

*Unlike the capital asset pricing model, but similar to the arbitrage pricing theory, hedonic price theory indicates neither the optimal number nor the kinds of variables that should be included in a valuation model (hedonic equation). Furthermore, the problem cannot be resolved empirically. A review of papers that utilize hedonic pricing techniques provides ample evidence that diverse views on correct model specification exist.*<sup>49</sup>

There is no agreement among economists about which factors affecting prices should be included as independent variables in such a model. Scott Atkinson and Thomas Crocker reviewed 15 hedonic property value studies conducted by others. There was little agreement among the studies as to which independent variables should be included—the 15 studies recognized approximately 110 different potential independent variables. However, Atkinson and Crocker found that the number of independent variables used in the models typically ranged between 15 and 18, with one study using 29 and another study only 11.<sup>50</sup>

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As a result, any model designed to determine the effect on property values of Hurricane Katrina flooding would be subject to the “omitted variable problem.”<sup>51</sup> Another Albert Wilson article summarized his comprehensive review of 90 published and peer-reviewed studies that used hedonic regression modeling to determine the impact of various “detrimental conditions” on real estate prices and values.<sup>52</sup> Wilson found a central methodological flaw<sup>53</sup> endemic to the use of statistical methods to quantify damages: The analysts failed to acknowledge that the result of the statistical testing never isolates the impact due to the factor studied (dependent variable) from the impact due to all other factors not specifically accounted for in the model. Wilson summarized the implications of this flaw in the method as follows:

*Which omitted variables are contributing and how much are they contributing? The included predictor variable no longer represents just itself .... but also some portion of all of the contributing omitted variables. This question is virtually unanswerable.*<sup>54</sup>

Wilson points to that failure to account for all variables as the critical flaw that makes such statistical methods unreliable in measuring actual damages in the real world: “These conditions [inclusion of every possible variable in the model] may be obtainable in a carefully designed laboratory experiment, but the probability of their occurrence for real world observational data is vanishingly small.”<sup>55</sup>

### CONCLUSIONS

In litigation alleging some type of negligence contributed to the damage to real property caused by a natural disaster such as Hurricane Katrina, courts often are faced with the need to determine if “class action” treatment is appropriate. In real estate markets similar to New Orleans in the wake of Hurricane Katrina, the damages analysis is particularly complex.

Given the wide array of types and sources of damages caused by Hurricane Katrina (e.g., wind, rain, flying debris, flooding, looting, power outages, etc.), there was no uniform, consistent and common method to measure the impairment to real property. Only rigorous block-by-block and property-by-property analysis considering the factual characteristics of each property could fairly and accurately measure the damages.

So-called “mass appraisal” techniques such as AVMs are prone to high rates of error and typically cannot fairly,

efficiently and accurately measure real property damages in areas as diverse as the New Orleans marketplace. Other statistical techniques, such as hedonic regression analysis, also present fundamental difficulties in identifying and handling all of the independent variables affecting prices both before and after an event like Hurricane Katrina in the absence of rigorous property-by-property analysis.

The variations between properties, both before and after Hurricane Katrina, made it necessary to consider damages on a property-by-property rather than class-wide basis.<sup>56</sup>

**Authors’ Note:** To date, in the Levee Case, the federal district court judge has not certified class action treatment. A tentative settlement reached before trial is under appeal. ■

### ENDNOTES

1. “In Re: Katrina Canal Breaches Consolidated Litigation, Superseding Master Consolidated Class Action,” Case No. 05-4182 K2, United States District Court, Eastern District of Louisiana, p. 1.
2. The Levee Case refers to Re: Katrina Canal Breaches Consolidated Litigation, Superseding Master Consolidated Class Action, op. cit. at 1, and states: “The Levee Class encompasses all of Orleans Parish north of the Mississippi River and west of the Industrial Canal as well as parts of Jefferson Parish on its east bank. It is comprised of five subclasses that correspond to the topography of the class geography, topography being a major factor in determining the source of water and that water’s ultimate location. (Doc. 9772, Memorandum in Support of Plaintiffs’ Motion for Class Cert. Ex. A, Area & SubClass maps).” The other class action was commonly known as “MRGO,” which is the acronym for the Mississippi River Gulf Outlet. “The MRGO case encompasses the portion of Orleans Parish east of the Industrial Canal, all of St. Bernard Parish and all of New Orleans East. It is comprised of two subclasses: the Lower Ninth Ward and St. Bernard SubClass and the New Orleans East SubClass.”
3. The railroad was named because allegedly one of its gates allowing trains to pass through the flood barriers along the Industrial Canal did not close properly, creating the first breach in the defense system and enabling the floodwaters to invade the city.
4. Since the date the Levee Case was filed in 2005, the U.S. Supreme Court has issued its important decision in *Wal-Mart Stores, Inc. v. Dukes*, Case No. 10-277, the most recent interpretation of the meaning of Federal Rules of Civil Procedure 23(a) and 23(b).
5. There are other counseling questions relevant to the typical class action certification assignment. Plaintiffs in such cases are required to identify specific “representative” plaintiffs, and in class actions seeking compensation for real property damages, this includes identification of representative “properties.” The Levee Case also involved important real estate counseling questions related to whether the 42 properties owned by the 25 plaintiffs, specifically



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identified by the attorneys for the plaintiffs, were truly “representative” of the tens of thousands and potentially 180,000 residential, commercial, industrial, institutional, governmental, and other types of properties in the purported class area covering most of the city of New Orleans and parts of Jefferson Parish. That issue is not addressed in this case study.

6. As indicated in the Levee Master Consolidated Complaint dated Aug. 10, 2007.
7. Other experts retained by the defendants included GCR & Associates, Inc., a New Orleans based economic analysis firm, and Truax, Robles & Baldwin Appraisers, LLC.
8. The plaintiffs’ Levee Case complaint sought to recover “damages as a result of the inundation/flooding in this area which occurred during and immediately following the landfall of Hurricane Katrina on or about Aug. 29, 2005.”
9. Conditions report from “Hurricane Katrina,” National Oceanic and Atmospheric Administration, National Climatic Data Center, <http://www.ncdc.noaa.gov/special-reports/katrina.html>, updated Dec. 29, 2005.
10. Other types of potential non-real estate damages not considered by us included, for example, damages due to loss of business income, damages due to loss of personal property, damages due to loss of personal income, damages due to the need to rent/buy alternative housing while repairs were undertaken to primary residence, etc. All of these types of potential additional damages may indirectly affect real estate prices and values because of their impact on particular neighborhoods as well as the entire local and regional economy, again emphasizing the need to look at damages on a neighborhood-by-neighborhood, block-by-block, and even property-by-property basis.
11. The 6,900 transactions are as reported by the local multiple listing service. Many thousands of additional properties likely sold without the use of a multiple listing service real estate agent.
12. Damages due to extended marketing time may be measured in terms of the lost opportunity to reinvest the net proceeds of sale at a risk-free rate during the additional marketing period.
13. There were about 215,091 housing units in Orleans Parish pre-Katrina, but only 87.5 percent were occupied. Source: U.S. Census Bureau 2000 Census, as reported by the Greater New Orleans Community Data Center, <http://www.gnocdc.org>.
14. Liu, Amy and Allison Plyer, *The New Orleans Index: Second Anniversary Special Edition*, The Brookings Institution Metropolitan Policy Program and Greater New Orleans Community Data Center, p. 6.
15. University of New Orleans Real Estate Market Data Center & Center for Economic Development, “Metropolitan New Orleans Real Estate Market Analysis,” Volume 39, March 2007, p. 65.
16. Liu and Plyer, op. cit., p. 6.
17. University of New Orleans, op. cit. at 15, p. 57. The study found significantly higher operating costs for apartment complexes.
18. Ibid.
19. Ibid., p. 101. The study reported that the Dominion Tower at 1450 Poydras Street, containing 486,692 square feet, and the 225 Baronne Building remained unavailable for occupancy as of December 2006.
20. Ibid., p. 77.
21. The University of New Orleans study reported that “reoccupancy of some previously damaged properties has been encouraged with incentive rents or modest concessions.” Once again, understanding the effect of such concessions would require careful property-by-property analysis in order to fairly and accurately compensate retail owners for Katrina flood damages.
22. Lamond, Jessica and David Proverbs, “Does the Price Impact of Flooding Fade Away?” *Structural Survey*, Vol. 24, No. 5, 2006, p. 365. The review of the literature found that the largest impact found was 30 percent in a California study of “property flooded to a depth of greater than 10 feet” but “the majority of studies found average impacts below 15 per cent” and in some cases “prices were observed to increase after flooding, perhaps due to betterment on reinstatement.”
23. Ibid., p. 375.
24. “The Impact of Flooding on Residential Property Values: A Report for the RICS Foundation by Liverpool John Moores University and University of Wolverhampton,” September 2004.
25. Labley, D. and L. Cordery, “The Effects of Catastrophic Flooding at Nyngan and Some Implications for Emergency Management,” *Australian Journal of Emergency Management*, Vol. 12, No. 2, pp. 5–9.
26. Lamond and Proverbs, op. cit., p. 366.
27. Tobin, Graham A. and Burrell E. Montz, “The Impacts of a Second Catastrophic Flood on Property Values in Linda and Olivehurst, California,” available at <http://www.colorado.edu/hazards/research/qr/qr95/qr95.html>.
28. Skantz, Terrance R. and Thomas H. Strickland, “House Prices and a Flood Event: An Empirical Investigation of Market Efficiency,” *Journal of Real Estate Research*, Vol. 2, No. 2, Winter 1987, p. 79.
29. Yeo, Stephen, “Effects of Disclosure of Flood-Liability on Residential Property Values,” <http://hdl.handle.net/1959.14/41822>.
30. See, for example, Randall Bell, Orell C. Anderson and Michael A. Sanders, *Real Estate Damages: Applied Economics and Detrimental Conditions, Second Edition*, The Appraisal Institute, 2008.
31. The information represented conditions in the study areas as of our dates of inspection in June, July, August and September 2007.
32. The first floor elevation of about 70 percent of the properties in the Belfort study area were built with first floors from two to four feet or more above street level. This meant that about half the structures in the neighborhood had no interior flooding from Katrina.
33. This program established in the wake of Hurricane Katrina provided grants to homeowners for reconstruction.



## Real Estate Counseling in Class Action Litigation: Determining Real Estate Damages from Natural Disasters

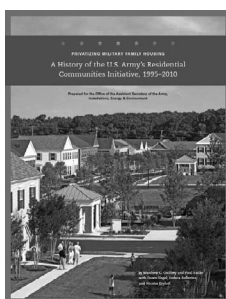
34. [http://www.nola.com/weblogs/pring.ssf?mtlogs/nola\\_tupdates/archives/print217834.html](http://www.nola.com/weblogs/pring.ssf?mtlogs/nola_tupdates/archives/print217834.html)  
<http://www.nola.com/frontpage/t-p/index.ssf?base/news-7/1166687735146230.xml&coll=1>.
35. *The Times-Picayune*, May 1, 2007.
36. *Ibid.*, June 7, 2007.
37. Linne, Mark R., "A Vision for Valuation: Automated Valuation Models and Appraisal Practice," paper presented at the 23rd Pan Pacific Congress of Appraisers, Valuers and Counselors, San Francisco, Calif., Sept. 16–19, 2006.
38. *Ibid.* AVMs have also begun to be used by some lenders "for internal purposes, either in a quality control environment as an appraisal review tool or for funding on high-quality loans that were kept within the institution such as home equity loans." Victoria Cassens Zillioux, "Automated Valuation Models: Automation vs. Hybrid," paper presented at the 23rd Pan Pacific Congress of Appraisers, Valuers and Counselors, San Francisco, Calif., Sept. 16–19, 2006.
39. White, Brenda B., "Evaluating AVMs," *Mortgage Banking*, September 2006, p. 17, referencing the March 2006 issue of *Mortgage Technology*.
40. Dell, George, "AVMs: The Myth and the Reality; the Problem and the Solution," *Valuation Insights & Perspectives*, The Appraisal Institute, Third Quarter, 2004, p. 13.
41. *Ibid.*, p. 50.
42. See, for example, *Guardian Pipeline, L.L.C. v. 950.80 Acres of Land, et al.*, U.S. Court of Appeals, Seventh Circuit, 525 F.3d 554. 2008.
43. See, for example, George H. Lentz and Ko Wang, "Residential Appraisal and the Lending Process: A Survey of Issues," *Journal of Real Estate Research*, Vol. 15, Numbers 1/2, 1998, p. 16: "Other problems encountered in estimating hedonic pricing equations include the delineation of homogeneous submarkets and the selection of an estimation period." See also V. Bajic, "Housing-Market Segmentation and Demand for Housing Attributes: Some Empirical Findings," *AREUA Journal*, Vol. 13, No. 1, 1985, p. 59: "The assumption of the unified housing market has been challenged by a number of authors....The alternative hypothesis is the absence of short-run equilibrium and market segmentation along structural and neighborhood lines. In this case, one would find significant differences in attribute prices across different market segments. This implies that hedonic price regressions should be fitted separately for each submarket."
44. As already discussed, it was the great number and wide variety of neighborhood submarkets that was found to be the principal reason for the failure of AVMs to accurately predict New Orleans' prices and values as part of the Road Home program.
45. "For a typical appraisal assignment, however, this method (multiple regression/hedonic modeling) has been criticized because it requires far more observations (i.e., recent sales), than can generally be found in the relevant market area..." Lentz and Wang, *op. cit.*, p. 13.
46. "Neighborhood variables are much more difficult to measure (in a regression model). There does not seem to be widespread agreement in the literature as to what variables constitute appropriate measures of neighborhood quality." Robin A. Dubin, "Estimating of Regression Coefficients in the Presence of Spatially Autocorrelated Error Terms," *The Review of Economics and Statistics*, 1988, p. 468.
47. Wilson, Albert R., "Real Property Damages and Rubber Rulers," *Real Estate Issues*, Summer 2006, p. 26.
48. Halvorsen and Pollakowski describe this fundamental problem as a basic lack of a commonly accepted model for hedonic analysis: "...the appropriate functional form for the hedonic equation cannot in general be specified on theoretical grounds." Robert Halvorsen and Henry O. Pollakowski, "Choice of Functional Form for Hedonic Price Equations," *Journal of Urban Economics*, Vol. 10, 1981, p. 37.
49. Lentz and Wang, *op. cit.*, p. 16.
50. Atkinson, Scott E. and Thomas D. Crocker, "A Bayesian Approach to Assessing the Robustness of Hedonic Property Value Studies," *Journal of Applied Econometrics*, Vol. 2, 1987, p. 28.
51. "Pure regression prediction suffers from an omitted variable problem ..." Peter F. Colwell, Roger E. Cannaday and Chunchi Wu, "The Analytical Foundations of Adjustment Grid Methods," *AREUEA Journal*, Vol. 11, No. 1, 1983, p. 26. See also Kerry D. Vandell, "Optimal Comparable Selection and Weighting in Real Property Valuation," *AREUEA Journal*, Vol. 19, No. 2, 1991, p. 236.
52. Wilson, Albert R., "The Questionable Reliability of 'Peer Reviewed' Real Estate Literature," *Bureau of National Affairs: Expert Evidence Report*, Jan. 5, 2004.
53. The study also found a number of other errors in the studies including the following: failure to properly validate sales data and failure to eliminate inappropriate data (i.e., failure to undertake quality control), apparently because of a belief that sound statistical theory believes gross volume of data is preferable to an appropriately selected set of data.
54. In more scientific terms, he explains this fundamental flaw as follows: "With respect to the quantitative meaning of the predictor variable coefficients, and the related interpretation of those coefficients as the marginal contributor of that predictor variable to the response, these assumptions are true if—and only if—all of the predictor variables have been included in the regression and the predictor variables are absolutely independent of each other....Any relationship between the included and/or omitted predictor variables or any overall relationship not specifically addressed by the regression (e.g., 'location' in its many real estate-related facets), compromise the assumption of independence."
55. Wilson, *op. cit.*, p. 23.
56. Ultimately, in the Levee Case, the federal district court judge did not need to rule on the appropriateness of class action treatment because the case settled before that issue needed to be resolved.

RECOMMENDED READING

# A History of the U.S. Army's Residential Communities Initiative, 1995–2010

by Matthew Godfrey and Paul Sadin, with Dawn Vogel, Joshua Pollarine and Nicolai Kryloff  
(©2012, U.S. Government Printing Office. 349 pages)

REVIEWED BY PETER L. HOLLAND, CRE

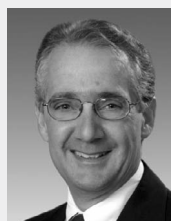


THE ABILITY OF CENTRALIZED BUREAUCRACIES and governments to implement change and undertake major initiatives effectively and efficiently is being widely questioned in this presidential election cycle. From time to time, however, there is contrary evidence that a business-like and

structured approach, when applied to the public sector, can deliver dramatic and remarkable results. Many doubted, and continue to doubt, that a free market model for military housing could work. However, extracting the best work that the private development community can deliver and applying that capability and creativity to a public service imperative has proven the viability of a free market response to an intractable problem. Public-private partnerships merely result from the conclusion that the collaboration of the private sector and the public sector can deliver improved results if each focuses on what it does best. And the successful story told in this work is in no small measure due to **the dedication and focus of a fellow Counselor of Real Estate, Mahlon “Sandy” Apgar, IV.** Armed with lessons learned as a senior executive at McKinsey and Co., he played a pivotal role in taking what became known as the Residential Communities Initiative program from concept to reality. According to Apgar, “The supreme test for all parties has been whether soldiers and taxpayers benefit. They have and they will.” ULI also played a role in the strategic concept and Jones Lang LaSalle capably assisted with execution.

This book, prepared earlier this year for the Assistant Secretary of the Army responsible for housing, describes a sometimes arcane and always complex effort to improve, or in fact transform, military housing. With a volunteer army, inadequacy (an understatement on my part) of existing military housing, and a variety of organizational, mission and structural changes within the military such as BRAC, military leaders identified the need for this

## About the Reviewer



**Peter L. Holland, CRE**, is a principal at the Hartford, Connecticut-based consulting firm of Bartram & Cochran, a business that undertakes advisory and brokerage assignments for clients worldwide. Holland has more 25 years of consulting with Fortune 100 companies, and has not-for-profit experience in real estate and shared services including site selection, procurement and sourcing, global outsourcing, business continuity and facilities. He is skilled aligning real estate strategies in support of an organization's key mission and financial operational objectives.

For more than 20 years, Holland was associated with The Hartford Financial Services Group, Inc., one of the nation's largest insurance and investment companies. At The Hartford, he was senior vice president and chief procurement officer responsible for real estate and facilities, procurement, global sourcing, business resiliency, and corporate services. Holland also was COO and CFO of CoreNet Global, the premier organization for corporate real estate professionals and related advisory, service provider and economic development professionals.

Active in The Counselors of Real Estate® since 2006, Holland currently serves as Chair of the Connecticut Chapter.

## A History of the U.S. Army's Residential Communities Initiative, 1995–2010



*"The supreme test for all parties has been whether soldiers and taxpayers benefit. They have and they will."*

—Sandy Apgar, CRE

daunting and noble initiative. Regrettably but predictably, past efforts had failed. Housing that might have been acceptable under the exigencies of WW II was failing members of the military, many of whom now had families and saw military service as a career. Service men and women identified poor housing as yet more clear evidence that a soldier's work was less than valued by politicians and civilians alike.

There are any number of successful projects described in the book, many at installations widely known to the public with or without military service. Among the projects tackled under this initiative were Fort Carson, Colorado (located in the Broadmoor area of Colorado Springs); Fort Hood, Texas; Fort Meade, Maryland; and Fort Lewis, Washington. In Fort Meade, 2,500 families now live in modern, safe, energy efficient and affordable housing. Fort Lewis alone, for example, covered 85,000 acres and had a population in 2001 of 20,000 active duty soldiers, 9,192 family members and almost 5,000 civilian employees. Almost 300 out of the 3,600 homes at Fort Lewis were on the National Register of Historic Places. Using Columbia, Maryland as a model, Apgar insisted that the new developments build on, and advance, the best thinking available in New Urbanism.

While the book is as an advocacy piece, this advocacy and attendant detail are not misplaced. Important work was accomplished. The book provides an impressive level of detail, sometimes to the extent that the details camouflage the greater message and the overall theme. A reader needs to

work through multiple chapters in order to fully grasp the effort as an integrated whole. As a record of the history and as a process to emulate in other public and private partnerships, the exacting descriptions can be instructive. The book, then, is more than a history; it will serve as a manual on how to get the job done for years to come. Much has been accomplished in the realm of "P3" but much more remains to be accomplished in the future. Programs are now under way to extend the lessons learned with military family housing to hotels and barracks. There is no reason not to believe that taxpayer dollars can't be leveraged for these forms of housing as well.

I can't conclude without offering kudos to the team of authors for the complete index, chapter summaries, photographs, table of military abbreviations (almost five pages and without which the book would be impenetrable), and a very complete list of resources including interviews, public records, electronic records, bills, statutes, etc. All too often this aspect of a history and a reference are neglected.

For those already engaged in public-private partnerships, this book will be of value. For those interested in knowing more and entering this field as practitioners or advisors, the book will be more valuable still. ■

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