REAL ESTATE ISSUES

THE COUNSELORS OF REAL ESTATE℠
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WINTER 1999/2000
Volume 24, Number Four

1976 - 2000
CELEBRATING 25 YEARS OF PUBLISHING EXCELLENCE

ABOUT THE COUNSELORS OF REAL ESTATE™

The Counselors of Real Estate, established in 1953, is an international group of high profile professionals including members of prominent real estate, financial, legal and accounting firms as well as leaders of government and academia who provide expert, objective advice on complex real property situations and land-related matters.

Membership is selective, extended by invitation only on either a sponsored or self-initiated basis. The **CRE Designation** (Counselor of Real Estate) is awarded to all members in recognition of superior problem solving ability in various areas of specialization such as litigation support, asset management, valuation, feasibility studies, acquisitions/dispositions and general analysis.

CREs achieve results, acting in key roles in annual transactions and/or real estate decisions valued at over $41.5 billion. Over 300 of the Fortune 500 companies retain CREs for advice on real estate holdings and investments. CRE clients include public and private property owners, investors, attorneys, accountants, financial institutions, pension funds and advisors, government institutions, health care facilities, and developers.

Enrichment Through Networking, Education & Publications

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CRE members benefit from a wealth of information published in The Counselors' quarterly journal, *Real Estate Issues*, which offers decisive reporting on today's changing real estate industry. Recognized leaders contribute critical analyses not otherwise available on important topics such as institutional investment, sports and the community, real estate ethics, tenant representation, break-even analysis, the environment, cap rates/yields, REITs, and capital formation. Members also benefit from the bi-monthly member newsletter, *The Counselor*, and a wide range of books and monographs published by The Counselor organization. A major player in the technological revolution, the CRE regularly accesses the most advanced methodologies, techniques and computer-generated evaluation procedures available.

What is a Counselor of Real Estate (CRE)?

A Counselor of Real Estate is a real estate professional whose primary business is providing expert advisory services to clients. Compensation is often on an hourly or total fixed fee basis, although partial or total contingent fee arrangements are sometimes used. Any possibility of actual or perceived conflict of interest is resolved before acceptance of an assignment. In any event, the Counselor places the interests of the client first and foremost in any advice provided, regardless of the method of compensation. CREs have acquired a broad range of experience in the real estate field and possess technical competency in more than one real estate discipline.

The client relies on the counselor for skilled and objective advice in assessing the client's real estate needs, implying both trust on the part of the client and trustworthiness on the part of the counselor.

Whether sole practitioners, CEOs of consulting firms, or real estate department heads for major corporations, CREs are seriously committed to applying their extensive knowledge and resources to craft real estate solutions of measurable economic value to clients' businesses. CREs assess the real estate situation by gathering the facts behind the issue, thoroughly analyzing the collected data, and then recommending key courses of action that best fit the client's goals and objectives. These real estate professionals honor the confidentiality and fiduciary responsibility of the client-counselor relationship.

The extensive CRE network stays a step ahead of the ever-changing real estate industry by reflecting the diversity of all providers of counseling services. The membership includes industry experts from the corporate, legal, financial, institutional, appraisal, academic, government, Wall Street, management, and brokerage sectors. Once invited into membership, CREs must adhere to a strict Code of Ethics and Standards of Professional Practice.

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The demand continues to increase for expert counseling services in real estate matters worldwide. Institutions, estates, individuals, corporations and federal, state and local governments have recognized the necessity and value of a CRE's objectivity in providing advice.

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Only 1,100 practitioners throughout the world carry the CRE Designation, denoting the highest recognition in the real estate industry. With CRE members averaging 20 years of experience in the real estate industry, individuals, institutions, corporations, or government entities should consider consulting with a CRE to define and solve their complex real estate problems or matters. REI

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TABLE OF CONTENTS

CRE PERSPECTIVE

INSIDER'S PERSPECTIVES

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EDITOR'S STATEMENT - by Richard Marchitelli, CRE

At the start of the Second Quarter of 2000, Y2K is a distant memory, the New Economy is roaring forward, the Fed continues its assault on stocks, and e-commerce is firmly established as a way of conducting business. Terms like B2B and B2C have become part of our lexicon. In addition, digital links between technology providers and businesses are becoming better understood as is the movement of goods and services in the new order. **CRE John McMahan's** article on e-commerce lends clarity to the many changes that are taking place and the business strategies that are evolving.

As technology creates opportunities, it also has some unpleasant effects. Disintermediation of jobs and functions is one such result. The threat of displacement is far reaching, ranging from travel agents to automobile dealers. Virtually no industry is immune. Potential disintermediation of real estate brokers and the importance of adaptability are stressed by **John Stanfill.**

The aforementioned topics are not new to *Real Estate Issues*. Indeed, somewhat opposing views were articulated by **Hugh Kelly, CRE** — at least with respect to the profundity of change wrought by technology on uses of real estate—in the Winter 1998/1999 Issue of REI ("And You Say You Want a Revolution? Technology Turns Out to Be a Plus for Real Estate Demand").

Returning to the "real" world, **Buzz McCoy, CRE**, discusses whether real estate finance is global or local in nature, while **Bill Kinnard, CRE**, and co-authors opine on the effects that deregulation of electricity rates will have on property taxes. Other topics included in this issue are a new approach to portfolio analysis (**CREs Torto** and **Wheaton; Sivitanides** and **Southard**) and strategies in dealing with contamination resulting from oil spills (**CRE Friedman**).

In this edition of REI we are also pleased to present the inaugural "Insider's Perspective" columns of **Peter Korpacz** on research; **Bjorn Hanson, CRE**, on the hospitality industry; and **Robin Panovka** on REITs. They join the economics column, authored quarterly, by **Hugh Kelly, CRE**. It is hoped that regular columns by such leading thinkers in their fields will enhance the appeal of REI and ensure that it maintains a contemporary, cutting-edge outlook.

And, speaking of outlook . . . we invite you to watch for special features in the coming year as we commemorate the **25th anniversary of *Real Estate Issues***. We are proud to celebrate this publishing milestone with you, our valued readers, and look forward to the next 25 years.

Richard Marchitelli, CRE
Editor in chief

Ivan Faggen, CRE
2000 National CRE President

THE IMPACT OF E-COMMERCE ON REAL ESTATE

A look at the forces changing the way America lives and works and the implications for the real estate industry

by John McMahan, CRE

"The world of the soft—the world of intangibles, of media, of software, and of services—will soon command the world of the hard—the world of reality, of atoms, of objects, of steel and oil, and the hard work done by the sweat of brows."

Kevin Kelly, *New Rules for the New Economy*, 1998

The real estate industry has experienced many setbacks over the years – the economic roller coaster of cyclical boom and bust, "credit crunches" when financing completely dries up, sudden changes in government land use or tax policy, and physical destruction as a result of wars or natural disasters.

But never in its history has the real estate industry faced a threat to its fundamental role in society – providing physical space for people and firms to perform their day-to-day activities. It is only in the last few years, as the use of the Internet has spread and been adapted to commercial transactions that the true nature of this threat has begun to emerge.[1]

This manuscript explores the e-commerce phenomenon and why it is so appealing to business firms and consumers. It then examines the nature of the threat to real estate and speculates on the magnitude of the impact on each property type.

WHAT IS E-COMMERCE?

Electronic business (e-business) is the use of the Internet and other electronic devices to operate and manage businesses.[2] Electronic commerce (e-commerce) is e-business involving a purchase or sale transaction that occurs electronically.

Electronic transactions involving the sale of products or services to retail customers are referred to as "Business to Consumer" or B2C.

ABOUT THE AUTHOR

John McMahan, CRE, *is senior principal of The McMahan Group, a management-consulting firm that assists real estate firms in developing strategies towards e-commerce and other technologically driven forces. He is also executive director of The Center for Real Estate Enterprise Management, a non-profit research organization specializing in issues facing managers of real estate enterprises. Mr. McMahan is an Adjunct*
(Continued on page 11)

Transactions conducted *between* business firms are called "Business to Business" or B2B. *Figure 1* illustrates the process by which both B2C and B2B activities occur.

B2C activities, including payment for goods or services, are conducted through the Internet directly with the consumer. The delivery of the goods or service ("fulfillment") may be handled directly by the e-firm or by contracting with a logistics firm (e.g. UPS, FedEx, etc.). This interface is generally facilitated by the use of an "extranet," a dedicated portion of the Internet that connects an e-firm with its suppliers and customers. Either the logistics firm or the e-firm may operate the extranet.

The e-firm also may use the web[3] to assist in producing and distributing goods or services. In the case of a manufacturer, this may involve an "intranet" connection within the firm with employees (and computers) involved in the marketing, production, and distribution process. Since many firms are outsourcing many of their non-core activities, the process also may involve an extranet connection with sub-contractors and suppliers.

WHY IS E-COMMERCE SO APPEALING TO BUSINESS FIRMS?

Most people think of e-commerce in terms of B2C transactions, largely because of the intense media scrutiny and the large ad budgets of the B2C firms. As indicated in *Figure 2*, however, 80 percent of e-commerce is currently B2B and its relative position is expected to increase over the next five years.

Improves Operating Efficiency

The rapid growth in B2B is due largely to a significant increase in firm operating efficiency made possible by the web. There are many reasons for this—shorter production cycles, higher employee productivity, better inventory management, and more direct control over distribution channels.

Many large firms such as GE, Ford, and General Motors are rapidly transforming their entire operations into Internet companies in which the web controls or influences virtually all aspects of their operations.

Lowers Investment Costs

Another major attraction of being an e-firm is the role of the web in dramatically lowering the amount of investment capital required to produce a given dollar amount of revenue. This is achieved by substituting the virtually zero cost (at the margin) of the web for the marginal cost of new physical factory and equipment. This produces a significant increase in the return on net assets (RONA). To illustrate, *Figure 3* compares the RONA of *Amazon.com* with Barnes & Nobles' non-web, bricks and mortar operation.

Accelerates Market Share Capture

A web-based firm also can capture market share much more quickly ("scalability") than a non-web firm that must invest in the time-consuming process of financing and constructing buildings and other physical infrastructure. This is particularly important to start up firms or those wishing to introduce new business lines or products.

WHAT ATTRACTS CONSUMERS?

Pricing Not the Magnet

Another public perception is that lower prices are the major reason for shopping on the web. In fact, the web is often *more* expensive than discount bricks and mortar stores. In a recent cost comparison study covering food, stationary, housekeeping, health/beauty, toys, and paint/hardware, only paint/hardware was cheaper on the web.[4]

A price advantage that e-commerce firms *do* enjoy is the fact that they do not have to charge sales tax as a result of a government moratorium. Given the rapid growth of e-commerce, however, and the resultant increasing diversion of sales tax revenue from state and local governments, this pricing advantage ultimately may disappear.

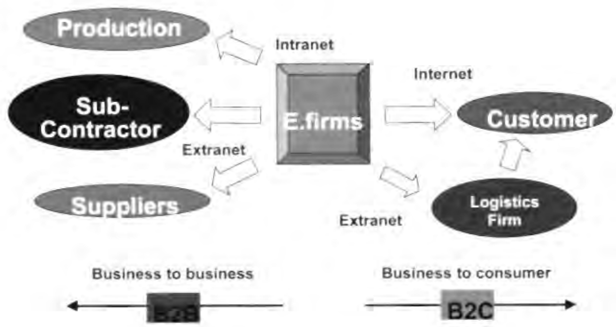
If price is not the major attraction for B2C e-commerce, what is? As indicated in *Figure 4*, Americans have been working longer hours and relaxing less. Many are "time poor" and will trade price for the convenience of ordering products and services at a convenient time (anytime) and in a convenient location (anywhere). For certain products, such as toys, the web also avoids a potentially traumatic in-store experience that most shoppers prefer to escape.

A New Value Chain

Figure 5 illustrates how e-commerce has created a new value chain between producers and consumers. It begins with a significantly different value proposition than that of the traditional retailer. Product/service selection is massive and centralized as opposed to what is available only in a physical store. Customer service is targeted and personal rather than constrained by the local labor

Figures 1 - 4

Figure 1
The E-Commerce Process



Source: The McMahan Group

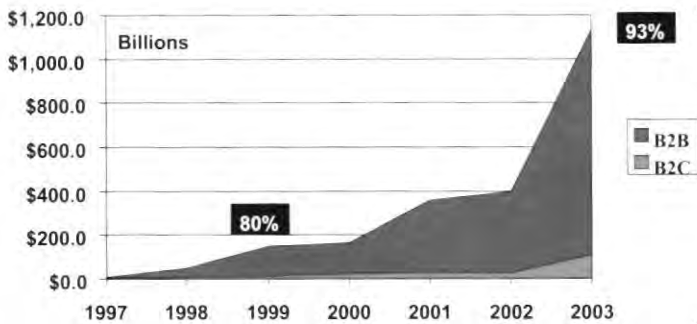


Figure 2
B2B Dominates E-Commerce

Source: Fisher Center for Real Estate and Urban Economics, 1999

Figure 3
The Web Can Significantly Improve RONA

All $ in millions	Amazon.com	Barnes & Noble*
Sales CY 1999	$1,300	$3,404
Mature margin	11%	10%
Operating profit (potential)	$143.1	$340.0
Net assets employed	$102	$1,238
RONA	140.3%	27.5%

* Non-web operations

Source: Thomas Weisel Partners, LLC

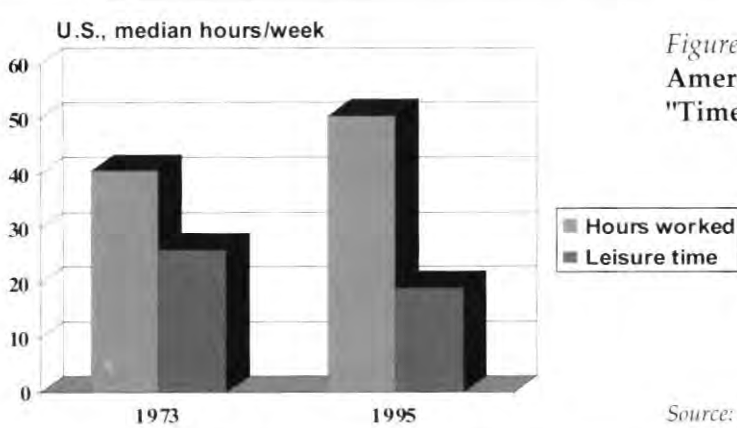
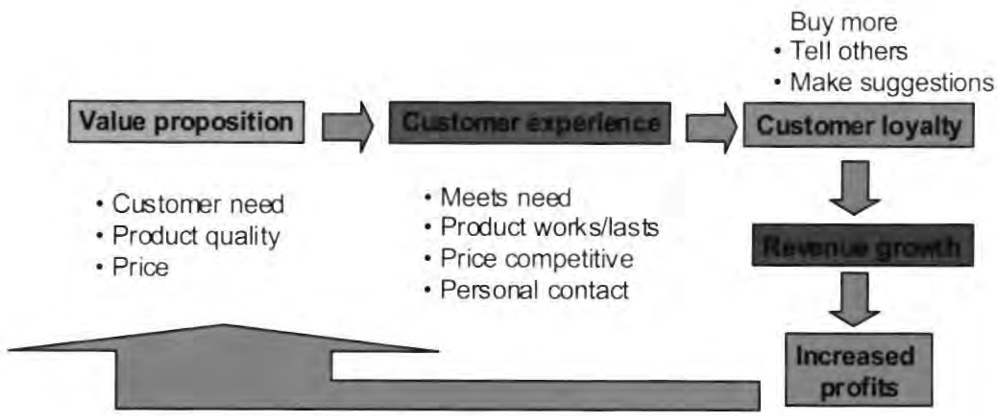


Figure 4
Americans Are "Time Poor"

Source: U.S. Bureau of Labor Statistics

Figure 5

E-Commerce Value Chain



Source: Deloitte & Touche, The McMahan Group

market. Timing convenience is significantly better: 24 hours a day, seven days a week (24/7) as opposed to when a physical store is open. The extensive resources of the web also allow the e-tailer to provide consumer education and offer solutions to customer problems. Finally, web products and services compete globally on price, not just against the merchant down the street.

If the e-tailer's value proposition is fulfilled, the customer's experience is positive and a bond of loyalty can begin to evolve. The web firm benefits from this loyalty as the customer buys more, tells others about his/her positive experiences, and makes suggestions to the firm for further improvements. This leads to revenue growth and, at some point, increased profits, a portion of which can be plowed back into enhancing and reinforcing the value proposition.

Fulfillment Still a Big Hurdle

Successful fulfillment continues to be a major problem facing e-tailers. The front end marketing and advertising is of little value if the delivery of the product or service ("the last mile") cannot be completed in a timely and hassle-free manner. Consumer satisfaction levels decline when orders become "out-of-stock" or require too long a delivery time. On average, half of disappointed back-ordered customers cancel their purchases.[5] Many e-tailers are just beginning to understand the overall magnitude and complexity of the fulfillment problem, particularly in times of rapid increases in sales activity.

HY IS REAL ESTATE THREATENED BY -COMMERCE?

oth B2B and B2C e-commerce threaten real estate, lthough in different ways. This is due to some undamental propositions:

he Internet represents revolutionary change in he way virtually everything will be done in our ociety.[6]
he Internet is based on the use of cyberspace, hich is basically non-physical space.
eal estate, in contrast, is physical space.
very transaction that occurs on the Internet is a ransaction that will not occur in physical space.
ver time, this substitution can result in less ggregate demand for physical space, all other hings being equal.
ven if aggregate demand for a particular property type is not affected, the Internet may require ifferent building configurations and locations, hereby rendering many existing buildings obsolete.

ome may quarrel with the degree or timing of these actors, or parse words as to their meaning, but they re so fundamental that it seems much more productive for real estate people to discuss how to deal ith the problem than to assume it doesn't exist.

observes, the impact of technological change is usually overestimated in the short run and underestimated in the long run.[7]

WHAT IS THE NATURE OF THE THREAT?

The threat to real estate is twofold: 1). a direct reduction in the aggregate demand for physical space; and 2). a reduction in the functions currently associated with the use of these assets, indirectly resulting in reduced demand for affected properties.

Direct Reduction in Aggregate Physical Space Demand

A direct reduction in the aggregate demand for real estate assets may occur because:

Physical space is no longer required: As noted, demand for retail and service space is reduced when transactions occur over the Internet rather than in a store or office. The more sales or service volume handled over the web, the less demand for physical space. Space devoted to commodity-like goods and services is most impacted by this phenomenon.

The acceleration of inventory turnover: Demand for storage space is lower when average inventory turnover is reduced. Reduction in the turnover rate of business firms has been declining for some time as a result of "just in time" scheduling, the extensive use of bar coding, and the growth of logistic firms to distribute goods to the consumer.

These developments have provided the foundation for the Internet to emerge as an integrating and unifying force that will dramatically improve the efficiency of goods movement. As an example, when Dell Computer converted to an Internet purchasing format, it reportedly reduced its average inventory turnover period from 56 days to six.

Reduction or Elimination of Functions Occurring in Physical Space

The second type of impact is created by the disintermediation of a function or activity, generally in the services area. Every business transaction that is performed over the web ultimately reduces the demand for physical space to perform the same transaction.

There are many traditional intermediary roles that are impacted:

- Insurance agents
- Mortgage brokers
- Real estate brokers
- Bank employees
- Stock brokers
- Travel agents
- Automobile salespeople

This is largely due to the significant cost savings that the web can generate in service transactions, as indicated in *Figure 6*.

No doubt there are other activities that will be impacted over time. People made redundant will be forced to retire or seek employment in other areas. Unfortunately, the new jobs in the Internet industry often require different skill sets than those of many redundant employee. This is reinforced by the general tendency of businesses to lay off older employees and hire younger ones.

WHAT IS THE MAGNITUDE OF THE IMPACT?

The magnitude of e-commerce's impact on real estate will vary by property type, location, and physical configuration of the asset.

Retail Properties

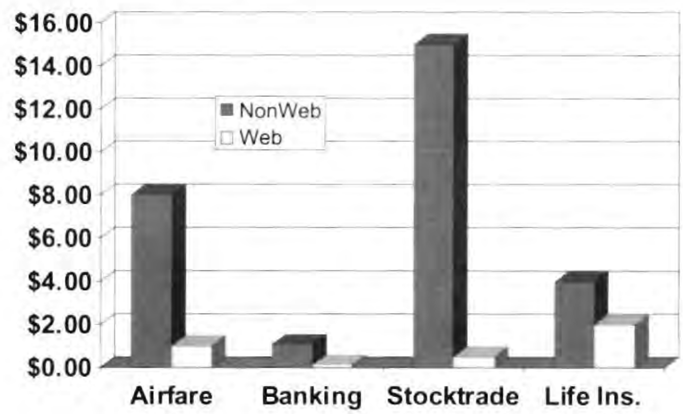
The web will have the greatest negative impact on the aggregate demand for retail properties. To understand this better, it is important to distinguish between the economic health of the retailer and the demand for physical retail space. Much has been written about the ongoing battle between traditional and web retailers. While the "clicks and mortar" retailers may ultimately prevail over those that are "born on the web," this is not necessarily good for real estate because the demand for physical space is still reduced.

Retail Assets Weakening: Retail has been a depressed property type for many years. The annual growth in shopping center real retail sales per square foot has been negative or neutral for most of the last 20 years. This lack of growth, coupled with an emerging concern about the impact of e-commerce, has led to lower investor expectations for the future appreciation for regional malls, as indicated in *Figure 7*. In the public market, mall retail REITs are currently priced at a 30 percent discount to Net Asset Value (NAV), the steepest discount of any major property type.[8] This, despite the fact that 1999 was one of the best years for retail sales ever!

Shopping center space also is rapidly aging—almost three-fourths of U.S. space is over 10 years and almost half is over 20 years. Older centers

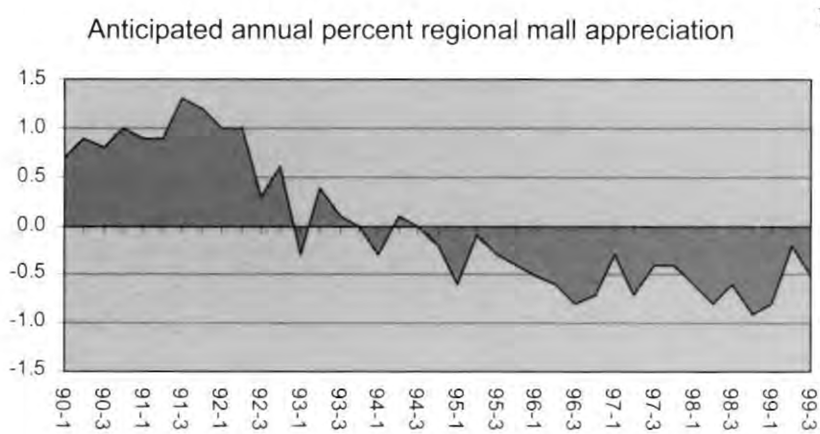
Figures 6 - 8

Figure 6
Lower Cost of Services



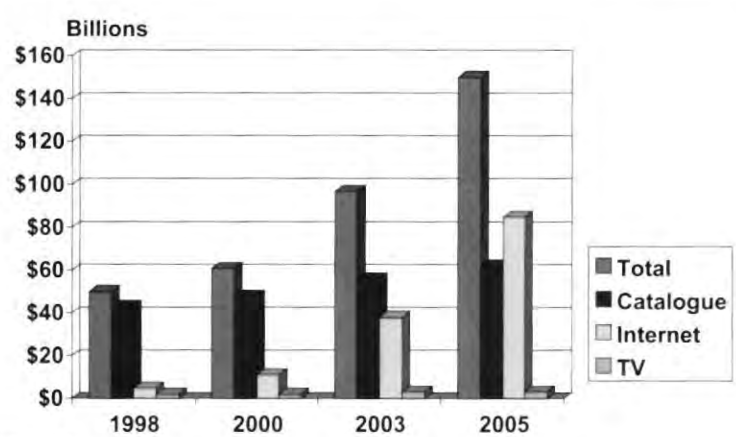
Source: Booz Allen & Hamilton, The McMahan Group

Figure 7
Investors Expect Little Mall Appreciation



Source: RERC, The McMahan Group

Figure 8
Projected Non-Store GAFO* Sales



* General merchandise, apparel, furniture, and other goods
Source: Clarion Partners, The McMahan Group

may not have the location, design, parking, or tenants to compete in an increasingly turbulent retail market.

Non-store Sales Growing Rapidly: Non-store retail sales have been rapidly increasing, although still a relatively small percentage of total retail sales. Catalogues continue to be the dominant format for non-store retail sales although Internet sales have been responsible for the bulk of the growth over the last few years and are growing at a faster rate.

Between 1996 and 1998, virtually all of the growth in non-store sales was over the Internet. The growth in catalogue sales was about the same as 1992 – 1996, while TV sales growth was static.

Figure 8 projects non-store retail sales of general merchandise, apparel, furniture, and other goods (GAFO) — those considered to be most likely to occur in shopping and power centers. The analysis assumes that catalogue and TV sales will continue at 1992 – 98 growth rates. Internet sales were projected at the mean of two sets of industry projections. Based on this analysis, Internet sales should become the dominant form of non-store GAFO sales by 2005.

Impact on GAFO space: *Figure 9* translates the projections in *Figure 8* into square footage of shopping center and power center space. The $50 billion in existing non-store sales was deducted from 2005 sales in order to focus only on incremental sales. This generally assumes the impact of existing non-store sales has already occurred.

Sales per square foot are based on 1998 sales of shopping centers, 10 years or older, and power centers. GAFO space in 2005 assumes that the rate of space inventory growth over the last 10 years will continue. All projections assume a three percent annual rate of inflation.

This analysis indicates that the demand for physical space devoted to GAFO sales could drop by as much as 15 percent - 17 percent over the next seven years.

Neighborhood Centers: To date, most observers have assumed that the web will have little impact on neighborhood centers because of the high percentage of food and beverage items. This is further demonstrated in the marketplace where neighborhood center REITs are discounted at the second lowest rate (19 percent) of any major property type.

The amount of money and talent being expended on online grocery operations such as Webvan and Streamline, however, may ultimately pose a threat to traditional supermarket chains that operate on very low margins. Webvan in particular is focusing on reinventing the supermarket distribution system and, if it succeeds, all grocery store metrics may change.

Industrial Properties

While the impact on retail will most likely involve a reduction in the amount of space required, aggregate demand for industrial space

Figure 9

Incremental Impact of Non-Store GAFO Sales on Shopping and Power Centers by 2005

2005 GAFO sales diverted	$100 billion
Sales per SF*	$192.00
GAFO space reduction	520 MSF
Percent of 2005 GAFO space	15% - 17%

* Space currently over 10 years old + power centers

Source: Clarion Partners, ULI, ICSC, The McMahan Group may actually increase. The location and design of new industrial buildings, however, will be considerably different than today.

Aggregate demand: At this point, the aggregate demand issue is difficult to gauge. A strong argument can be made that industrial demand will be lower in the future as a result of the decline in average turnover, made possible by the increasing use of the web for inventory management.

There are, however, many positive forces shaping industrial space demand. Increasingly, traditional office users are shifting to industrial facilities. As an example, pension advisor Kennedy Associates has developed 24 facilities over the last two years, utilizing industrial construction techniques to create more cost efficient office space. Most tenants are large, blue chip companies, utilizing the space largely for office-type operations.

The operations of web firms also are having a positive impact on industrial demand. Initially, this occurred through the development of space for independent call centers taking online orders and logistic firms delivering products to the customer.

Increasingly, however, web firms are taking direct control of the ordering and fulfillment process. As an example, *Amazon.com* is developing millions of square feet of regional distribution centers within a day's truck drive of many American markets. Webvan has executed a contract with the Bechtel Group to develop highly automated, mega-warehouses in 26 cities across the nation.[9]

Metro Area Location: Thus far, web building site selection has emphasized being at or near the delivery capabilities of major logistical firms such as FedEx and UPS. This has meant increased demand for industrial facilities at or near major airports, particularly in hubs such as Memphis and Louisville.

As more web firms decide to manage their own fulfillment, expect expansion of demand in other major regional distribution centers such as Atlanta, Dallas, Los Angeles, Chicago, and Northern New Jersey. These markets are also attractive because the host city is usually a large market in itself, allowing rapid distribution to customers in the immediate area. The result could be a negative impact on industrial demand in second tier distribution cities.

Airport Locations: Whether or not this new demand will favor airport locations within these metro areas is not clear. AMB Property Corp., a large industrial REIT, is developing new warehouse facilities "on the tarmac" of airports throughout the nation and, potentially, overseas. Other observers point to the necessity of being located near regional and local ground distribution systems.

If an airport location is desired, there is also the issue of whether to utilize an existing public passenger terminal or one of an expanding number of private freight and executive aircraft airports. Public passenger airport locations continue to have a major advantage — 40 percent or more of cargo is still carried on passenger flights.[10]

Building design: There also are major changes occurring in the design of these new buildings. The combination of a large, diverse inventory, high turnover, and a "single point" delivery promise requires a sophisticated, dependable order tracking system. A large portion of this can be automated, requiring clear-span space for installation and operation of equipment, as well as the availability of an adequate supply of dependable power. Multiple truck operations require a large number of truck bays and more land devoted to truck turning and maneuvering.

Not all fulfillment operations can be automated-larger numbers of people (for industrial buildings) are required to operate the automated system and to "hand-pick" special orders.[11] This means air-conditioning a higher percentage of building space and providing more employee parking than would be found in a traditional industrial building.

Since web-based inventory turns much faster, there are fewer inventories stored and less demand for high rack storage space. This shifts building design from a concern with cubage to one of square footage, resulting in new buildings having lower ceilings and a larger footprint. When coupled with a need for more employee parking, industrial building sites will have to be considerably larger than in the past. Amazon's new 800,000 square foot warehouse in Atlanta is a good example of this new prototype.

Public Warehouses: Industrial facilities for smaller firms are also changing. Some of AMB's new buildings, such as one under construction at DFW airport, will allow four 747-cargo airplanes to simultaneously unload directly onto the warehouse loading dock. The goods are then transferred to one or more of 46 truck loading docks situated on the other side of the building. In essence, this type of facility is not a storage building but a "through put" facility that mixes and matches goods between air and ground transit, which, in the process, substantially reduces inventory turnover.

In summary, the impact of e-commerce on industrial properties will be both positive and negative. Generally, the positive is that many new facilities will be required in new locations. Most of these will be built from scratch due to major changes in building location and design. Also, they will be located as closely as possible to key modal interchanges in the path of goods movement, particularly at the nexus of air and ground transit.

Perhaps more far-reaching is the use of the web to change the logistic equation, requiring new buildings that facilitate air/ground transfer and have little need for storage. While this creates demand for new, specially designed space, it reduces inventory turnover and could shrink the need for pure storage space. This could have a negative impact on the demand for existing industrial properties, particularly those in older industrial areas and/or second tier cities. Over time, many of these buildings could become functionally obsolete for industrial purposes and may better serve office, residential, or other uses.

Office Properties

We have noted that many service firms will suffer disintermediation as a result of the growth of e-commerce.[12] Since many of the employees affected will not be candidates for "webifying," the odds are high that this will result in fewer employees per dollar of revenue and less demand for traditional office space.

Financial, insurance, and real estate (FIRE) services will be one of the major areas impacted. As of 1997, FIRE firms occupied approximately 30 percent of office space in the U.S.[13] Any major reduction in FIRE demand will most likely impact office space in CBDs, particularly in second tier cities and those lacking a strong high-tech labor force.[14]

Substitution Space: In some cases, lower demand for office space may be offset by demand for new space in a new location or a new configuration. It is also possible that vacated office space is reused by non-traditional users, as reflected in the growth of Internet firms in downtown San Francisco's "Media Gulch"[15] and New York's "Silicon Alley." For those firms that can successfully webify all or a portion of their operations, the new facilities are more likely to be located in industrial rather than office areas.

If the web reduces operating margins as anticipated, FIRE firms may be forced to seek lower operating cost environments.[16] In the long run, this may have even broader implications for the location of office operations and may further contribute to the shift to industrial-type facilities.

Real estate does appear to be threatened by e-commerce, although the threat is quite different for each of the major property types. For some real estate firms and individuals, e-commerce may mean an end to the way business has been conducted in the past. For others, e-commerce may represent an opportunity to grow both professionally and financially in what history will no doubt record as a defining moment for the industry.

Apartment Properties

Demographics: Multifamily residential properties are already benefiting from the positive demand impact stemming from two major traditional apartment cohorts (boomers over 50 plus echo boomers in the 18 – 25 year old category) experiencing rapid growth simultaneously.

In terms of web impact, few strong arguments can be made that it will be negative. In fact, the added convenience of web shopping could further enhance the attraction of apartment living by delivering goods and services directly to the individual unit or community pickup station. This should be particularly attractive to time-starved professionals and older residents.

Web Initiatives: To take advantage of this, several large multifamily owners, such as BRE Properties, are experimenting with the development of a community home page from which a wide variety of shopping and other services can be provided over high capacity lines, without disrupting normal phone service. The availability of on-site apartment managers to explain services, expedite deliveries, and explore resident needs creates a powerful merchandising combination of considerable value to retailers and others seeking to expand their penetration of local consumer markets.

The apartment owner also stands to benefit handsomely. Most owners experience 50 percent or greater annual tenant turnover. To the extent that tenants evidence greater satisfaction from

Figure 10

Impact Summary

	Less net demand	Demand shift	Little or no impact
Malls/power centers	✓		
Neighborhood centers			✓
Suburban office		✓	
CBD office	✓		
Industrial		✓	
Residential			✓

Source: The McMahan Group

their living environment, they may tend to change residences less frequently. Lower turnover rates mean increased income that falls directly to the bottom line.

In addition, potential non-rental income through advertising, licensing agreements, and other arrangements with retailers may turn out to be significant, further enhancing apartments as a desirable investment opportunity in the new century.

SUMMARY

Figure 10 summarizes the anticipated impact of e-commerce on various real estate property types. Malls and power centers should experience the most direct negative impact, followed by CBD office buildings. Industrial and suburban office properties will experience a significant impact, but largely in terms of a shift in design and location. It is possible that net aggregate industrial space demand may actually increase.

Neighborhood shopping centers should feel the least impact of the retail formats, although the emergence of well financed and managed e-commerce food and beverage business models may pose a problem to low margin supermarket chains. Multifamily residential appears to be the only property type that will not experience a significant negative impact as a result of the growth of e-commerce and, in fact, may benefit, as apartment living is made more desirable.

In conclusion, real estate does appear to be threatened by e-commerce, although the threat is quite different for each of the major property types. For some real estate firms and individuals, e-commerce may mean an end to the way business has been conducted in the past. For others, e-commerce may represent an opportunity to grow both professionally and financially in what history will no doubt record as a defining moment for the industry.

The new Millennium is an excellent time to take stock and challenge traditional ways of doing things. From this re-examination of goals and circumstances, new strategies can evolve that will minimize downside risks and perhaps uncover new opportunities that were previously unknown. REI

NOTES & REFERENCES

1. The worldwide use of the Internet doubles every 100 days. The web has reached 50 million users in less than five years, significantly faster than television (13 years), the computer (16 years), or radio (38 years).
2. Examples include telephones, fax machines, computers, bar-code scanners, credit cards, smart cards, telecommunications lines, hand-held devices, robots, etc.
3. The terms "web" and "Internet" are used interchangeably in this article.
4. Goldman Sachs
5. *Wall Street Journal*, November 22, 1999.

6. For a contrasting view, see Eamonn Fingleton, *In Praise of Hard Industries: Why Manufacturing, Not the Information Economy is the Key to Future Prosperity*, (Houghton Mifflin, 1999).
7. For more of Peter's insightful observations on the workings of technology and the web, click on www.pikenet.com.
8. Merrill Lynch, *Comparative Valuation of REITs*, January 6, 2000. Other property types were: Apartments: 15 percent; Neighborhood Shopping Centers: 19 percent; Hotels: 21 percent; and Office/Industrial: 22 percent.
9. Other Internet firms with plans for developing large warehouses include Barnesandnoble.com Inc., and eToys.com Inc.
10. AMB Properties, Inc.
11. In a recent survey, approximately 40 percent of E-firms reported that some "manual intervention" was required to fill orders (Source: *Wall Street Journal*, November 22, 1999).
12. Some observers expect som ething of a counter trend or re-intermediation, as experienced people are increasingly required to interpret the flood of commoditized data made possible by the Internet.
13. Institute of Real Estate Management
14. From 1997 to 1999, the annual employment growth rate in the financial services, insurance, and real estate (FIRE) industries fell from over four percent to well below two percent. During the same period, the annual employment growth rate for "New Economy" industries such as telecom, recreation services, motion pictures, and computer and data processing remained near or above six percent.
15. As an example, it was recently announced that eight floors (200,000 sq.ft) in the former Chevron building in downtown San Francisco were leased to a multi-media company.
16. Industrial space rents for $5-$6 sq.ft. versus $20-$30 for office and retail.

ABOUT THE AUTHOR

(continued from page 1)

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How Brokers Can Counter the Risks of Disintermediation By Embracing and Leveraging Technology Trends

by John Stanfill

Over the past few years many self-styled futurists have been fervently predicting that the Internet's ability to enhance communications between the principals in a commercial real estate transaction will lead directly to widespread "disintermediation" in which all traditional intermediaries will become extinct. Obviously such sweeping prognostication has been the cause for quite a bit of concern among real estate professionals in general and among commercial brokers in particular. In reality, the global reach and ever-expanding capabilities of the Internet represent a myriad of opportunities for forward-looking commercial real estate brokerages to greatly enhance their value-added services as well as improving their cost efficiency. By embracing these new technologies rather than avoiding them, brokers can turn the Internet into a source of new empowerment instead of a threat of elimination.

RAPID EVOLUTION OF INTERNET E-COMMERCE CAPABILITIES

Over the past few years a virtual stampede of companies have stormed on to the Internet in a new and unrelenting "gold rush" to mine the mother lode of e-commerce. According to projections from Forrester Research, Inc., the online sales of hard goods alone will reach $1.3 trillion within the United States by 2003. Already, the new frontier of e-commerce has produced many undisputed high-profile successes, such as Amazon.com, eBay, GeoCities, and Dell Computer Online. At the same time, the excitement generated by these new online commerce alternatives is continuing to fuel the unrelenting growth in the number of actively participating Internet users, currently estimated to include more than 80 million Americans, with

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(Continued on page 16)

millions more joining in every month. Spurred on by the well-publicized successes of these e-commerce pioneers and the growing acceptance of mainstream users, the Internet now represents a major opportunity for transforming both the residential and commercial sectors of the real estate industry.

While much of the "buzz" associated with the Internet has been on the exciting new successes in retail-oriented, Business-to-Consumer (B2C) sectors, industry experts generally agree that the most dramatic impacts of Web-enabled commerce are just now beginning to emerge in the Business-to-Business (B2B) arena. While B2C applications offer a new way for retailers to reach broader markets, B2B eBusiness applications entail sweeping opportunities for completely re-engineering existing supply chain and transaction processing relationships for much greater efficiency using Internet-based technologies.

According to a new study conducted by Activmedia, the real estate market is predicted to be the second fastest growing arena for online commerce, exceeded only by the growth in computer software sales and ahead of publishing/information services, financial services, Internet services and computer hardware. The Activmedia report indicates that while overall business on the Internet is growing at an explosive 63 percent, the real estate sector is experiencing an amazing 310 percent growth rate. Although the bulk of this real estate e-commerce growth is in the retail-oriented residential sector, the commercial real estate sector offers major opportunities for re-engineering the entire intermediary process to greatly enhance brokers' value-added services and overall profitability.

DIFFERENCES BETWEEN RESIDENTIAL AND COMMERCIAL MARKETS

In the early going, the residential real estate market has actively migrated to the use of online marketing and sales mechanisms because the Internet represents a fairly natural extension of existing standardized methodologies. For example, residential multiple listing services (MLS) have been automated for decades and are widely accepted as a core tool for the industry. Moving MLS databases online was a very logical step in response to the growing wave of agents and their customers who routinely use the Internet. Similarly, the enhancement of the marketing and sales process through the online posting of Web-based "brochure-ware" has become a routine part of the residential real estate arena. Because sales in the residential market are driven primarily by the ability to put standardized information into the hands of armies of local agents, the use of Internet-based marketing has quickly become a powerful tool.

The commercial real estate market has been somewhat slower to embrace the Internet because of the inherently different nature of the commercial process. Instead of being driven by the mass communication of standardized listing information as in the residential sector, the commercial sector has traditionally entailed much more complex and varied transactions that require a higher level of management by the broker throughout the entire sales and negotiation process.

On the other hand, the commercial real estate market has been somewhat slower to embrace the Internet because of the inherently different nature of the commercial process. Instead of being driven by the mass communication of standardized listing information as in the residential sector, the commercial sector has traditionally entailed much more complex and varied transactions that require a higher level of management by the broker throughout the entire sales and negotiation process.

Clients in the commercial sector tend to look to their brokers to provide a broader set of value-added services within the context of a deeper and often times ongoing relationship. Because of this need for a deeper relationship, many commercial brokers have traditionally been reluctant to "open-up" the process, preferring to maintain more control over exactly how and where the properties are marketed. Therefore, commercial brokers require much more functionality and flexibility from their investment in online systems.

As they implement new Internet-based e-commerce solutions, commercial real estate brokers need to be able to flexibly manage a variety of multi-dimensional marketing methods, such as:

- Worldwide marketing of their listings based on a variety of parameters that go well beyond just price and location;

- Options for privately posting listings within their own organizations;
- Capability to focus marketing efforts on prequalified principals;
- Ability to interactively search and retrieve listings according to a wide range of parameters;
- Flexibility to step the marketing process through distinct phases, such as starting with private listings and then transitioning to more widespread shared listings as required;
- Options for efficiently delivering both online and hard-copy color marketing materials and offering memorandum in real time;
- Efficient integration with existing legacy systems and desktop environments;
- Capability to supplement the sale with value-added support services at the point of transaction; and
- Built in analysis tools for ongoing management of the overall sales and marketing process to achieve optimal results for customers and profitability for the broker.

OPTIMIZING LIQUIDITY, SPEED OF TRANSACTIONS, AND COST-EFFICIENCY

The basic objectives for the ultimate success of any market-making activity include the need to optimize liquidity for the customers while ensuring a high degree of transaction speed and cost efficiency. As the commercial real estate industry has become increasingly globalized and institutionalized, the ability to provide ready liquidity has become an important consideration for professional investors, such as REIT managers and pension fund advisors. Likewise the ability to speed up the transaction process ensures greater effectiveness of the market by reducing the percentage of deals that are at risk of "falling out" of the process during protracted negotiations, due to conditions such as changes in the economic environment.

Therefore, an increasingly sophisticated customer base is turning to their commercial brokers to use all available technologies to optimize market reach, liquidity, and transaction speed. Similarly, the broker community is discovering that the well-integrated deployment of Internet-based technologies can greatly improve the underlying cost efficiency of their operations by helping them to more quickly target qualified prospects and to rapidly move their transactions from initial presentation to final completion.

The broker community is discovering that the well-integrated deployment of Internet-based technologies can greatly improve the underlying cost efficiency of their operations by helping them to more quickly target qualified prospects and to rapidly move their transactions from initial presentation to final completion.

EXTENDING GEOGRAPHIC REACH AND MARKET KNOWLEDGE

Perhaps the greatest impact of Internet-based technologies on the commercial real estate market is the ability to immediately reach prospective customers anywhere around the world and around the clock with in-depth and highly effective information on the property being offered. Unlike residential sales, in which geographic location is the primary criteria for matching buyers and sellers, the commercial market has become an increasingly global arena, in which other business parameters generally outweigh geographic location. Therefore, to serve this worldwide marketplace, commercial brokers must leverage available Internet-based technologies to improve their reach.

By using Internet-based "infomediary services" that are tailored specifically to commercial brokers, such as the PropertyFirst.com system, agents can gain access to detailed listings for thousands of available properties, which can be easily searched and sorted by a wide range of criteria. Properties can be categorized according to location, size, price, and type, such as office, industrial, shopping/retail, multihousing, hotel/resort, etc. This makes it a relatively simple matter for a broker to quickly compile a list of targeted candidate properties right from the broker's desktop. Similarly, using services that provide databases of registered principals, commercial brokers can interactively search and sort according to detailed profiles and buying criteria in order to quickly match prospective buyer requirements with available properties.

Driven by the need to better serve their customers, most commercial brokers are now recognizing the benefits of tapping into some form of shared database services to extend their reach and speed up sales cycles. However, the highly competitive nature of the commercial marketplace and the importance of the brokers' contributions to the process require that these shared marketplaces be designed to preserve broker autonomy and control.

Unlike the relatively wide open nature of Internet-based residential listings, it will be important for commercial brokers to make use of online databases that provide the ability to retain and enhance the importance of client/broker relationships. For example, by only accepting exclusively-listed properties from licensed brokers and building in mechanisms for automatic notification to the broker when a listed property is matched with a buyer, a system such as PropertyFirst.com can greatly streamline the sales process while simultaneously enhancing the broker's ability to capture the commission on both sides of the transaction.

By fostering highly-efficient and well-structured marketplaces that can be interactively used by both listing brokers and qualified principals, this new breed of online service has also laid a solid foundation for further enhancements to the commercial broker's value-added capability. Furthermore, by making use of shared database services maintained by database experts and trained research staffs, an individual broker and brokerage firm can turn into an industry-wide resource that would be too costly for any individual or firm to maintain.

THE IMPORTANCE OF DESKTOP SEARCH CAPABILITIES AND DATA ANALYSIS

Of course in order to enhance their added-value and efficiently manage their business activities, today's commercial brokers need much more than just access to an online database. Brokers also need powerful well-integrated capabilities to conduct data searches and analysis on their local desktop machines. As key participants in helping to shape deals from start to finish, commercial brokers must to be able to provide their clients with in-depth analysis of market conditions, historical trends, negotiation strategies, etc.

In order to compete in today's global market, commercial brokerage firms need to equip their brokers with powerful local applications that can empower them to conduct in-depth, off-line analysis to ensure timely information, cost-efficiency, and a high level of security. By setting up their internal information systems to mirror and complement their use of external online services, brokerage firms can minimize learning curves and training costs while maximizing efficiency and bottom-line service to their clients.

Brokers and their managers can also leverage the same software and historical database to quickly generate custom reports on key performance parameters, such as sales volumes, transaction timeframes, and closing ratios. Using the off-line analysis capabilities, management reports can be easily generated by broker, by office, by property type, etc., which can also be easily compared to overall industry trends and benchmarks by tapping into the broader set of information in the external online database.

LEVERAGING VALUE-ADDED SERVICES AT THE POINT OF TRANSACTION

Another major area in which the use of new Internet-based technology can strengthen the commercial brokers' value proposition is in the provision of ancillary and support services that are often required at the point of transaction. As online marketplaces become increasingly popular mechanisms for matching buyers and brokers, the same sites can also be used to develop full-fledged communities or "portals" that bring together qualified providers of a wide range of related services. For instance, upon completion of a transaction for office space, the broker or their principal could also tap into the online service for referrals to space planners, moving companies, telephone system vendors, etc.

Because virtually everything in commercial real estate is ultimately driven by the transaction, it will make sense for the majority of support and ancillary services to gravitate toward sites that support the broker and principal in the transaction process.

THE BOTTOM LINE

By exploiting these new Internet-based technologies to streamline their operations and extend their market reach, forward-looking brokerages can empower their brokers to spend less time chasing deals and more time closing them. As a result, brokerages can simultaneously increase their revenue stream, improve customer satisfaction, and lower their internal cost structure to improve profitability. In addition, the ability to cross-integrate new Web-based services with in-house software tools will further increase efficiency by providing a seamless environment for analysis, managing, and optimizing the overall process. Finally, the ability to readily make a tailored set of ancillary services available to their clients at point of closing will enable brokers to enrich their intrinsic val ue and strengthen their ongoing customer relationships.

Ultimately, the bottom line is that the rise of the Internet does not signal either the threat of wholesale disintermediation or even the diminution of commercial real estate brokers. On the contrary, by intelligently leveraging the powerful capabilities of the Internet's new breed of "virtual marketplaces" along with enhanced internal analysis and management tools, brokerages can significantly increase their value-added proposition and even further justify their commissions by improving overall service to customers. One might consider the technology changes that will be brought about as a "re-intermediation" of the skilled broker vs. disintermediation. REI

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(continued from page 12)

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THE EFFECT OF ELECTRICITY MARKET DEREGULATION ON LOCAL PROPERTY TAX ASSESSMENTS & FISCAL STABILITY

by William N. Kinnard, Jr., CRE & Gail L. Beron

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(Continued on page 22)

INTRODUCTION: BACKGROUND TO THE ANALYSIS

Federal Energy Policy Act of 1992

The 1992 Comprehensive National Energy Policy Act mandated restructuring the regulated electric utility industry in the United States to a competitive pricing environment. While it also encouraged energy efficiency, and the expanded use of renewable energy sources, the Act's primary thrust was to require competition (most especially competitive pricing) in the electricity generation segment of the electric utility industry. This meant competitive pricing of wholesale electricity at the generating plant "gate." The traditional vertical integration of the generation-production, transmission and distribution functions within the electric utility industry was effectively dismantled. Wholesale price competition was to be achieved through ownership-operation of generating facilities by non-regulated, non-utility owner-operators.

The transmission function, on the other hand, was required to remain under regulation by both the Federal Energy Regulatory Commission (FERC) and state regulatory commissions. Subsequent to the passage of the Act, FERC has mandated equal access to the transmission network, for all generating facilities, and at the same fees. The distribution function also remains with existing regulated local utility companies, who must deliver electricity to customers of all power suppliers within their former franchise areas at the same fees and with equal access.

From the base of the initial requirements and specifications of the Act, individual states were encouraged to pass their own restructuring legislation. In the absence of any such state legislation, federal standards and requirements were to go into effect by 2002.

State Action

Since 1997, several major states have passed legislation that both created a timetable for the development of a competitive pricing system for electricity and mandated choice of electricity providers for non-residential and residential customers alike. Approximately a dozen states in New England, the Middle Atlantic Region, and the Upper Mid-West (plus California) have such programs in place or in process. In most instances, non-residential ("commercial") customers were given the option to choose electricity providers or sources before such choice was offered to residential consumers.

Nearly all the state legislative programs require divestiture of generating facilities by regulated investor-owned utilities (IOUs), or at least "encourage" it. Municipal utility companies, other governmentally-operated utilities, and electric cooperatives are generally exempt from this divestiture requirement. Shifting ownership and operation of generating plants to non-regulated firms means that a market-price basis for local assessment and taxation of power stations must replace the existing system of relying primarily on net book value. The market evidence from the first two years of divestiture to non-IOUs indicates changes in plant values that will likely have strong impacts on both the local revenues and fiscal policies.

EMERGENCE OF A MARKET FOR GENERATING PLANTS

Because of the mandate or "encouragement" of divestiture in state "deregulation" laws, a reasonably active market for generating plants has developed since late 1997. The first sales were in California, which set the pattern for most of the other transactions that have occurred subsequently. Divestiture of generating plants is accomplished through public auction, most commonly with sealed bids. After bids are submitted and reviewed, there is usually direct negotiation between the seller and the short list of "acceptable" bidders.

Figure 1 presents summary information about sales volumes and prices through October 1999. The 55 reported sales transactions included over 200 generating plants. Multiple-plant transactions are not uncommon. At the same time, it is unusual for one purchaser to acquire the entire generating plant capacity of an IOU.

Figure 1 also provides averages for plant capacity, reported sales price, book value (when available), and reported sales price per KW, by type of fuel. There is a residual "Other" category in addition to the major fuel types: nuclear, hydroelectric, coal, and natural gas. "Other" sales include combinations of facilities using different types of fuel in the same transaction, without the necessary information to permit allocation of price by individual generating plant, or by category of fuel.

While all of the hydroelectric facility transactions (and many of the coal, natural gas, "fossil fuel," and geothermal facility sales) were multiple-plant transactions covering several communities, all of the nuclear-fueled power station sales involved only one facility (or a partial interest in one facility) in one community. Since the purchasers are non-regulated, the impact of sales prices on assessed values will directly affect the local community (town, city, or county) in which each plant is located and taxed.

Comparative Sales Prices by Type of Fuel

Average Sales Price per Kilowatt (SPKW) varies considerably by type of fuel. Not surprisingly, hydroelectric generating capacity commands the highest average SPKW, because its operating expenses are extremely low. Next is coal, followed by "other." Natural gas-fired facilities have commanded generally relatively low SPKW, in part because the plants that have transferred have generally been older and less efficient. In addition, their fuel costs have been rising in recent years, reflecting increased demand for natural gas, especially from new construction, which is discussed below.

Nuclear-fueled power stations have sold at the lowest average SPKW. This is also not surprising, given the uncertainties of operating license renewal or extension, decommissioning costs (both amounts and timing) and on-site nuclear waste storage costs. This latter uncertainty stems from the lack of a national nuclear waste storage site, or even a designed future location. Moreover, to date, no nuclear power station (NPS) has received a license renewal. In response to the pressures of competition, however, as of November 1999 there were over two dozen NPS license renewal applications pending before the Nuclear Regulatory Commission (NRC).

Figure 1

Summary of Sales of Electricity Generating Plants

Fuel	Number Sales Reported	Average Capacity (MW)	Average Sales Price ($000,000)	Average Book Value[(a)] Reported	Average Sales Price Per KW ($)	Sales Price as Percent of Book Value[(c)]
Nuclear	10	567	28	1,718	61.55	2%
Hydroelectric	3	692	445	250	596.14	170%
Coal	7	991	746	206	518.25	127%
Natural Gas	10	1,401	289	217	174.67	133%
Other[(b)]	25	1,359	354	429	342.33	116%
Totals	55	1,139	328	557	260.78	103%[(d)]

(a) Book Value Not Available for All Facilities

(b) Includes "Fossil," Geothermal, Mixed, Multiple

(c) For Only Sales with Book Value Available

(d) Weighted Average; Non-nuclear Weighted Average 125%

NOTE: Multiple Plant/Facility/Source Sales Make "Per Plant" Data Unavailable.

SOURCE: Seller 8-Ks (plus Press Releases; Articles; and Baltimore Gas and Electric Co., PG&E and Southern Energy, Inc., Web Sites). All sales information obtained from the Internet is *not* guaranteed to be accurate.

Sales Price vs. Book Value

The early (1997 through mid-1998) auctions produced sales prices well in excess of book value. This led to a widespread belief that the "stranded costs" of IOUs would be fully offset by the "profits" from the sale of their non-nuclear generating plants. Subsequent transactions, however, have reduced the ratio of sales price to book value. These figures are summarized by type of fuel in the far right-hand column of *Figure 1*. Quite clearly, nuclear-fueled power stations have sold at a very small fraction of their book value. On the other hand, hydroelectric facilities and natural gas-fired generating plants have sold at prices notably higher than their book values. Coal and "other" fuels have sold at lower ratios, but prices still average higher than book value. *Figure 1* also shows, that on average, non-nuclear facilities as a group have sold at about 25 percent above book value. These findings have implications for local property tax and assessment policies, which are discussed below.

NEW PLANT CONSTRUCTION

One of the elements of a competitive market is the response of supply to increased demand. Virtually all of the new construction that has been reported over the period November 1997 - October 1999, has been natural gas-fired. They have been predominantly combined-cycle gas turbines, with a sprinkling of co-generating facilities (which are effectively gas-fired jet engines). Some 40 new electricity generating facilities have been completed or started, totaling approximately 22,280 Megawatts of capacity. The average cost per kilowatt was $456. That figure has risen over the two-year period covered, largely because of increased demand for gas turbine generators and for skilled, experienced contractors.

The forecasts for new capacity construction and fuel demand provided in the sources cited in the Selected References all agree that reliance on natural gas turbine facilities will continue. Nuclear power is not environmentally or politically acceptable. Both coal-fired and hydroelectric facilities face potentially insurmountable regulatory barriers, as well as opposition from environmental groups. Further, it is exceedingly difficult to produce a "new" geothermal facility. Finally, renewable energy sources (e.g., wind, solar) cannot compete in the current and projected competitive-price market environment without subsidy. Moreover, they do not have a record demonstrating sufficiently high levels of reliability to serve in any role except as peakers in the overall electricity grid system of the U.S.

It is also easy to see why large numbers of purchases of existing natural gas-fired generating facilities have taken place between November 1997 and October 1999. The SPKW prices for existing facilities shown in *Figure 1* is still substantially lower than the cost per kilowatt for new facilities. Nevertheless, on net balance, it is expected that natural gas-fired combined-cycle turbines will continue as the technology of choice for new construction, at least during the coming decade (or until an as yet unknown competitive alternative emerges).

IMPLICATIONS FOR PROPERTY TAXES

- On average, the new, non-IOU owner-operators of non-nuclear facilities will likely face higher assessments, and pay more property taxes, than the former IOU owners did when assessments were based on book value. This will occur, however, only after assessors are able to utilize sales prices as the basis for new, higher assessments. In the inevitable ensuing debates over the Market Value of the real property (and taxable tangible personal property) of existing generating facilities that have sold, more explanatory details of the transactions will most likely emerge. Few "clean" sales of the tangible real property and personal property of electricity generating plants have been reported. Nearly all include acquisitions of fuel contracts, power purchase contracts with the selling IOU (some of which are long-term, fixed-price contracts), employment guarantees for existing plant personnel, and other intangible, non-realty assets. There will likely be considerable debate between taxpayers and assessors over the allocation of sales prices to taxable property. In particular, there will undoubtedly be major arguments over the extent to which reported sales prices reflect non-taxable, intangible assets.

On average, the new, non-IOU owner-operators of non-nuclear facilities will likely face higher assessments, and pay more property taxes, than the former IOU owners did when assessments were based on book value. This will occur, however, only after assessors are able to utilize sales prices as the basis for new, higher assessments.

- New, non–regulated owner-operators of nuclear plants will undoubtedly seek dramatic reductions in their assessments and property taxes. Assessors will resist these efforts as strongly as possible, because of the large dollar reduction in the local (county or municipality) tax roll that "marking to market" will entail. In addition, assessors' organizations in states with multiple nuclear-fueled power stations will seek help from the state legislature to obtain compensation for , or at least amelioration of, the potentially cataclysmic impact on local revenues. This has already happened in Illinois and Connecticut, for example. Similar fiscal catastrophes have impacted local communities in which nuclear power stations have closed (e.g., Brookhaven, Suffolk County, New York; and East Haddam, Connecticut).

  It will probably not matter whether any nuclear power station that has sold to a non-regulated IOU is in a state in which IOU properties are assessed and taxed state-wide on a unitary basis, or whether real property is assessed and taxed directly by the county or municipality in which it is located. The new owner(s) will not be a regulated IOU with interconnected property throughout the state. Even if the new owners acquire more than one power station within a given state, those generating plants will be separate, free-standing facilities. The transmission lines and distribution lines with which the power stations are connected will be still be owned and operated by a regulated IOU.

  Therefore, the likely fiscal problems associated with the sale of a nuclear power station, or a petition for revaluation based on market evidence, will be felt directly and fully by the local taxing jurisdiction.

- Some nuclear stations will likely stay in operation longer than has been anticipated. The prospect of extending the current license period is a real possibility in the emerging competitive market environment. As noted previously, as of November 1999, there were over two dozen license renewal/extension applications pending before the NRC. For the county or municipality in which the nuclear power station is located, this can mean some fiscal relief, although it will generally be minor relative to the loss associated with decreased Market Value.

- Non-nuclear facilities will, on average, likely be assessed and taxed at somewhat higher levels than would be associated with valuation through net book value (depreciated original cost). There will likely be a considerable range of variation in the ratio of sales price to book value (and current assessment), depending on the type of fuel involved, with serious argument over the extent to which sales price reflects intangible assets (as has been discussed previously).

- To the extent that assessed values in the local taxing jurisdiction are reduced (dramatically, in the case of nuclear power stations), the affected counties and municipalities will be confronted with the unhappy choice of reducing local services or increasing taxes on the remaining property owners within each affected taxing jurisdiction. Political turmoil may be created in some instances, as homeowners (who vote) seek to shift as much of the increased tax burden onto commercial and industrial property owners (who do not vote).

OPPORTUNITIES FOR COUNSELORS

Awareness of the issues involved and sensitivity to their fiscal implications can equip Counselors to prepare to meet the demands for new or expanded counseling, advisory, and some valuation services. A few select Counselors who are already established appraisers and are prepared to meet the challenges of valuing generating plants in a competitive environment for electricity prices will likely find their valuation skills much in demand. A broader range of opportunity exists, however, in providing market analysis and advice to potential bidders, as additional generating plants are made available at auction. Similar opportunities exist to assist and advise IOUs about the review of bids, or further negotiation for acceptability to the sellers.

In the public sector, many assessors will need counseling advice about how to proceed in dealing with, or negotiating with, both new, non-regulated owner-operators of generating plants located within their jurisdictions, and with existing owner-operators. The latter will be competing on the wholesale market for the sale of their product, even though they may still be regulated IOUs.

Finally, industrial and commercial clients seeking appropriate locations need to be made aware that there is one more location factor (or hazard) to be considered when an electricity generating plant (especially a nuclear power station) is located within a community.

As a first step in preparing to meet these opportunities, interested Counselors should become familiar with the sources of data and information about wholesale (and soon retail) electricity markets, and with the functioning of markets for generating plants. The *Selected References* that follow provide an appropriate starting point. REI

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(continued from page 17)

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Strategic Portfolio Analysis: A New Approach

by Petros S. Sivitanides, Jon A. Southard, Raymond G. Torto, CRE, & William C. Wheaton, CRE

With increasing institutional investment in real estate, the issue of portfolio analysis approaches that take into account the idiosyncratic behavior of local real estate markets as well the idiosyncratic characteristics of specific properties is becoming more and more relevant to strategically oriented investors. Modern Portfolio Theory (MPT) applications presented in the real estate literature focus on regions, divisions, or the nation and use averages and standard deviations based on historical data or Monte Carlo simulations to measure performance and risk, respectively.[1] Although such methodologies can provide useful insights in terms of structuring real estate portfolios, they present some serious limitations as they do not take into account differences in real estate market behavior across metropolitan areas as well as the strong predictable components embedded in such a behavior. Also, they are not tailored to take into account property-specific characteristics.

Against this background this manuscript presents a new approach to strategic portfolio analysis that focuses on metropolitan markets, develops forward return and risk measures based on the predictable components of the space markets, and allows the incorporation of idiosyncratic property characteristics. The balance of the manuscript is structured as follows: first the authors elaborate on the basic dimensions of real estate risk and discuss how real estate investors can use MPT applications to improve performance and reduce risk. Next, they outline what they believe to be the distinguishing features of their approach and briefly describe its basic steps. Finally, they present an application of their approach to industrial investment targeting.

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DEFINING REAL ESTATE RISK

One of the major challenges in applying MPT to real estate in a meaningful way is the derivation of consistent return and risk measures across markets or across specific properties. Developing such measures is particularly difficult given the uncertainties inherent in real estate investment. For example, investors acquire properties based on certain expectations regarding rental income growth and value appreciation over the holding period. But what if rents and values do not grow as much as expected or even decline? And how likely is it that such a disaster will occur? There are also uncertainties on the plus side, but these are welcome! These uncertainties regarding a property's cash flow and investment performance lie at the heart of the definition of real estate risk.

Real estate investors are faced with two types of risk: market risk and property-specific risk.

Market risk relates to metropolitan-specific factors that may adversely affect a property's cash flow. For example, if the high-flying stock market of 1999 crashes, office space demand and eventually market rents and property values will be negatively affected. Some metropolitan areas, however, will be affected more severely than others. For example, New York, whose economy depends highly on financial services, will take a greater hit than most metropolitan areas in the country. Hence the notion of market risk. Uncertainties regarding a market's performance stem not only from the demand side but also from the supply side. For example, an unexpected decrease in interest rates may trigger greater construction than expected, thus softening the market and depressing rental rates.

The notion of the **property-specific risk** is based on the widely accepted argument that the extent to which a specific property is affected by marketwide fluctuations depends on such idiosyncratic characteristics as its lease rollover schedule, existing rent levels, occupancy percentage, operating expenses, capital expenditures, etc. Thus, in measuring risk, it is important to go an additional step and examine how sensitive a property's cash flow is to marketwide fluctuations given such idiosyncratic characteristics.

When defining real estate market risk it is important to emphasize its forward-looking nature. Stock market originated theories and methodologies have established the historic standard deviation as the measure of risk, placing more emphasis on a backward (as opposed to a forward-looking) approach. Forward risk, or more appropriately, uncertainty, is not necessarily best captured by the standard deviation of past movements![2] For real estate, in particular, an historical/stock market originated approach is inappropriate for two major reasons. First, unlike stocks real estate cannot be traded instantly. Liquidity constraints force long holding periods that run typically between three and 10 years. Second, the real estate market is cyclical and slow to adjust.[3] The real estate market does not follow the random walk fluctuations observed in the stock and bond markets where tomorrow's price fluctuations have nothing to do with where the market is today. Given the widely documented cyclicality and slow pace by which real estate markets react to random economic shocks, what may happen tomorrow has a lot to do with today's market conditions.[4]

To understand the above argument, consider two hypothetical office markets, A and B. Market A has a high historic volatility of returns, let's say five percent, but also a very low vacancy rate, let's say three percent. Market B, on the contrary, has a low historic volatility of returns, let's say two percent, but happens to be in the middle of an explosive building boom that has recently driven vacancy rates up to 18 percent. Using the backward definition of risk as a guide, one would, without hesitation, point to market A as more risky. On the other hand, if differences in the current stage of the market were to be factored in, we would have a different assessment. Obviously, market B with an 18 percent vacancy rate would be much more susceptible to rent decreases and investment performance deterioration in the event of an unexpected decrease in demand than would market A with only a three percent vacancy rate. Hence, contrary to what a backward-looking approach would suggest, market B may in fact be more risky than market A.

RISK AND MODERN PORTFOLIO THEORY

Consistent estimates of risk measures for specific markets and/or properties can enable real estate investors to make more intelligent strategic investment decisions by applying MPT. MPT allows real estate investors to build better portfolios by systematically evaluating the risk and return characteristics of the opportunities available across all markets. For example, an investor considering 50 markets and four property types has to choose among 200 potential investment targets. By applying MPT, real estate investors can identify those combinations of target cities and property types that can achieve *the best levels of return with minimum risk.* There are many of these portfolios, each with different levels of return and risk. All of these ideal, or optimal, portfolios define what is called the *efficient frontier*. The efficient frontier is a very useful analytical tool, as it provides a frame of reference, allowing real estate investors to evaluate whether they can do better by *repositioning their portfolios*. *Figure 1* illustrates this point using two hypothetical existing portfolios and an efficient frontier plotted in risk and return space. The strategic implication of *Figure 1* is that an investor can improve the performance of an existing portfolio and reduce risk by altering its composition in terms of property types and markets. For example, Portfolio A in *Figure 1* can move upward to a higher return and even lower risk level by adding exposure to the Dallas office market (Portfolio B). MPT applications can help investors and portfolio managers in a number of other ways:

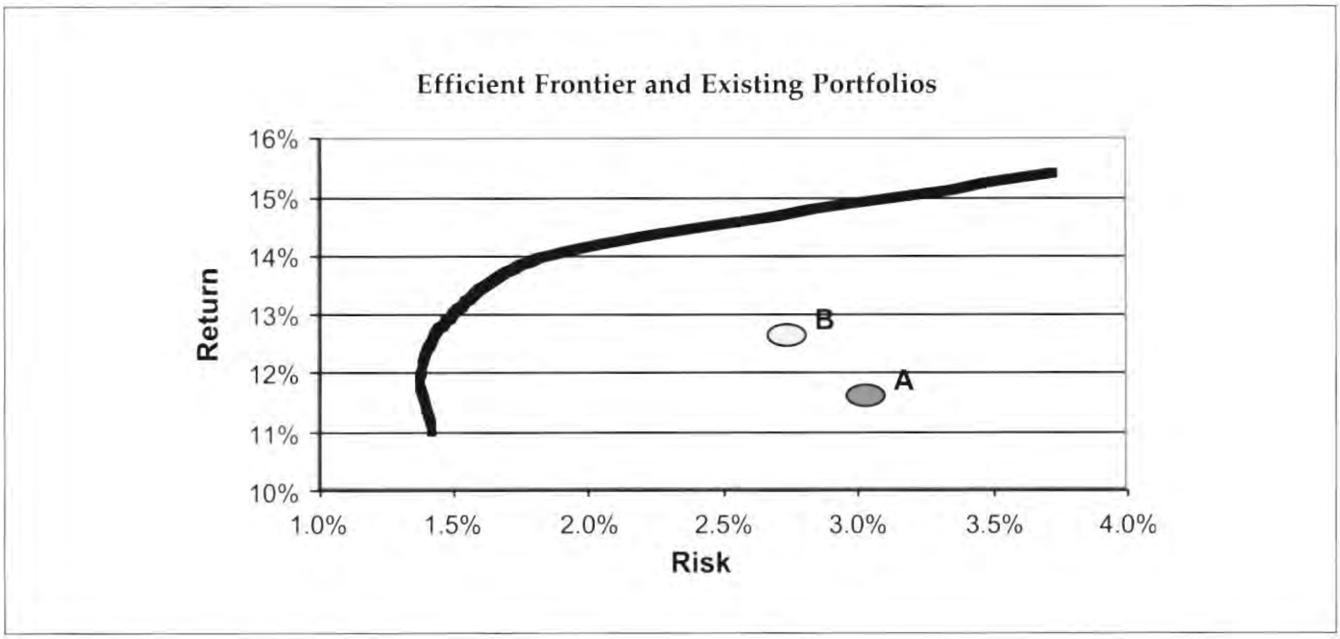
- **Introduce a disciplined approach to real estate investment and management** - MPT provides a consistent and systematic framework for analyzing real estate portfolios and developing investment strategies either at the metropolitan area/property type level or the asset-specific level.

- **Evaluate the impact of new acquisitions on existing portfolios** - MPT applications can help evaluate the impact of new acquisitions on the return and risk profile of existing portfolios by first measuring an asset's risk exposure and return prospects and then incorporating it into the portfolio of existing holdings.

- **Determine best city/property type allocations for building new portfolios** - The identification of the efficient frontier using MPT applications can first help investors to understand *the range of returns—and the minimum risk levels associated with these returns—that can be achieved given today's investment opportunities*. Second, it provides a *tangible benchmark* against which investors can contrast and evaluate their own return objectives and risk preferences. Finally, it can help investors determine *how to allocate* their funds across the different property types and intelligently select *target cities*. The efficient frontier can be *customized* to take into account each investor's objectives and preferences, such as the exclusion of markets whose size is below a certain threshold or minimum and maximum required allocations per market and property type.

- **Make intelligent new investment target choices that will best complement existing holdings and help better achieve specific investor objectives** - MPT applications cannot only help investors evaluate the extent to which a strategic repositioning of their existing portfolios will improve performance and reduce risk, but also guide them in implementing such a strategic repositioning. For example, asset allocation analysis can guide investors as to *what additional property*

Figure 1



type allocations and target cities will best complement existing holdings so that portfolio performance is maximized. The asset allocation model can be constrained so that the efficient frontier and the optimal portfolios generated take into account the specific characteristics of existing holdings that cannot be liquidated over the period of analysis.

- **Monitor changing portfolio return prospects and risk profile -** Given the dynamic nature of the economy and changing real estate market prospects, regularly updated asset allocation models help investors and institutions holding sizable real estate portfolios to continually monitor and evaluate *the potential impact of such changing market prospects on their portfolios.* As such, they can help investors to manage their portfolios more effectively by being *proactive* to foreseeable market movements brought about by unpredictable economic shocks.

PORTFOLIO ANALYSIS APPROACH

This section elaborates on how the proposed approach differs from typical MPT applications to real estate that have been presented in the literature. The authors then discuss its theoretical foundation and basic steps.

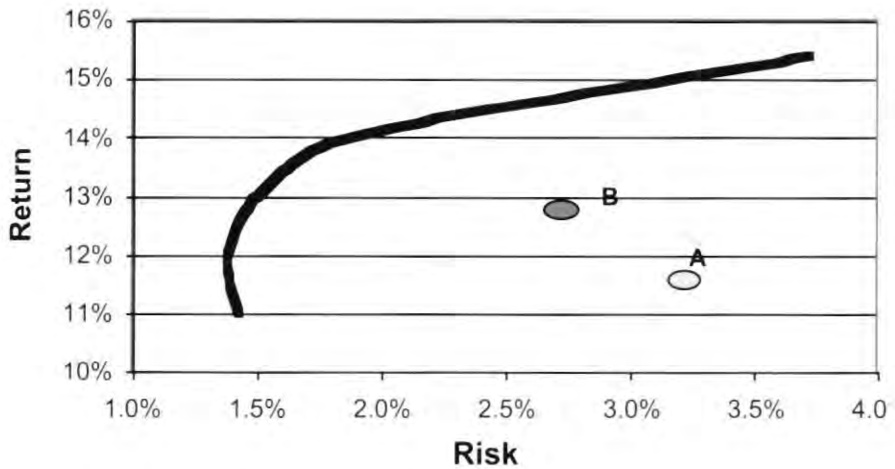
1). Distinguishing Features

Most MPT applications to real estate that have been presented in the literature are usually performed at the national or regional level and use historical averages and standard deviations as return and risk measures, respectively. Within this context, the authors believe that the following features may distinguish this approach from others.

Ability to evaluate return prospects and their associated risk both at the market and the asset-specific levels: The proposed approach can be used for not only evaluating risk and return for local real estate markets but also for specific properties taking into account their idiosyncratic characteristics. Consideration of asset-specific characteristics not only helps capture differences in return and risk characteristics across individual properties, but also more accurately assess the return prospects and risk profile of existing portfolios.

Analysis of an existing portfolio at both the local market and asset-specific levels can provide useful strategic insights by contrasting these against the efficient frontier, as in the hypothetical example of *Figure 2*. This representation demonstrates how measured specific asset characteristics contribute to portfolio risk profile and return prospects, compared to average market performance and risk. The figure indicates that the existing portfolio's return and risk profile evaluated at the asset-specific level-point B – is closer to the efficient frontier, as compared to its profile evaluated only at the market/ property type level – point A. To understand how these two portfolios differ, assume that portfolio A has an office building in Dallas, and that the forecast is for this market to fall over the next four years.

Figure 2



B: Existing portfolio evaluated at the asset-specific level
A: Existing portfolio evaluated at the market/property type level

Due to this negative forecast the analysis creates point A. However, assume that this office building has a triple-A tenant on a 10-year lease. Clearly, in this case, the correct return-risk calculations need to take the property-specific terms into account. This consideration moves the portfolio to point B – clearly a better position than point A.

Forward-looking return, risk and correlation measures: The methodology is specifically structured to produce forward- and not backward-looking risk and return estimates. These estimates are produced using the same consistent approach across markets and property types. As such, they are fully comparable and can be used as inputs for MPT applications.

A sophisticated and advanced analytical approach: In typical backward-looking MPT applications, the derivation of return and risk measures on the basis of historical data is a fairly simple task; however, this is not true in the case of a forward-looking approach. In the view of the authors, the sophistication of the proposed methodology is best reflected in four features. First, the methodology makes use of over 200 metro-specific econometric models that have been developed and utilized through the years by Torto Wheaton Research (TWR). These models are structured on the basis of powerful economic and econometric principles and capture the idiosyncratic interactions of local real estate market variables such as rents, vacancy rates, construction, and the local economy. Given the well-established segmentation of real estate markets along metropolitan boundaries, such modeling is crucial for understanding each market's unique prospects and sensitivities.

Second, the development of risk measures is based on the econometrically estimated forward variance of the economic factors that drive each market's forecasting models and a market-and-property type by market-and-property type evaluation of how such *economic* variance translates into forward-looking variance in *investment performance.*

Third, the return and risk estimates take into account each market-and-property type's current market conditions and econometrically estimated prospects. Finally, both the return and risk measures take into account prevailing differences across metropolitan areas/property types in capitalization rates, a key factor in determining purchase price and investment performance.

2). Methodology

Given the very limited availability of historical return series by metropolitan area and property type, direct modeling and forecasting each market's return is not feasible without some compromising assumptions. However, with the significantly greater availability of historical series for rental rates and other crucial space market variables, it is possible to develop forecasts of market-average and/or building-specific expected returns and associated risk measures by taking into account each market's unique behavioral patterns as well as a building's specific characteristics.

According to conventional portfolio theory, the expected return of an asset is the probability-weighted sum of its returns under different scenarios, while the risk associated with this expected return can be calculated as the probability-weighted sum of the squared deviations of the returns under each scenario from the expected return. Equations (1) and (2) describe the fundamental theory behind the asset return and risk estimation methodology.[5]

$$E(r)_j = \Sigma\ p_{ij}{*}r_{ij} \qquad (1)$$

$$\sigma^2_j = \Sigma\ p_{ij}{*}[r_{ij} - E(r)_j]^2 \qquad (2)$$

Where:

$E(r)_j$: expected return for metropolitan area j

σ^2_j : variance of expected return in metropolitan area j

p_{ji} : probability for scenario i in metropolitan area j

r_{ji} : forecast return for scenario i in metropolitan area j

The inputs entering equations (1) and (2) are derived through an elaborate and sophisticated market-by-market econometric analysis process. The steps involved in the estimation of return and risk measures and their use in MPT applications are the following:

1. Estimation of structural econometric models for each market/property type;
2. Econometric estimation of forward variance of and associated probabilities for all exogenous economic variables that drive each market/property type's forecasting model;
3. Development of forecasts of pessimistic and optimistic economic scenarios for each market/property type;
4. Development of rent and vacancy rate forecasts for pessimistic, base case, and optimistic scenarios;

5. Translation of rent and vacancy forecasts for each scenario into Internal Rate of Return (IRR) forecasts using a discounted cash flow model that takes into account each market/property type's capitalization rate;
6. Estimation of forward-looking return and risk measures for each market area/property type using the estimated IRR and respective probability for each scenario and equations (1) and (2);
7. Estimation of correlation coefficients using historical and forecast rent changes;
8. Assessment of investor objectives and identification of asset allocation model constraints implied by those objectives;
9. Derivation of the efficient frontier ;
10. Estimation of the return prospects and risk profile of existing real estate portfolio at the market/property type level and at the asset-specific level and assessment of need for strategic repositioning;
11. Estimation of the efficient frontier that incorporates existing holdings as constraints in the optimization process;
12. Identification of an optimal portfolio that best satisfies investor objectives.

AN APPLICATION TO INDUSTRIAL INVESTMENT TARGETING

This section presents a simplistic application of the new approach to industrial investment decision-making and, particularly, to the selection of target cities for industrial investments. More specifically, the authors present and discuss the return and risk estimates for 10 major industrial markets generated via the proposed approach. Subsequently they construct three portfolios of target cities, one using the MPT approach and two using simple rankings of the 10 markets. Finally, they compare the return/risk profile of these portfolios to demonstrate the superiority of the MPT-derived mix of target markets.

Industrial Market Return and Risk Estimates

Table 1 presents return and risk estimates for 10 major industrial markets. The return estimates are based on forecast cash flows for the average industrial building in each market; and an acquisition price calculated using the direct income capitalization approach. Such cash flow forecasts have been generated using TWR's *Outlook Interactive* software and market data as of mid-year 1998.

The 10 major markets used to demonstrate the usefulness of the proposed approach in industrial real estate investing are Atlanta, Boston, Chicago, Dallas, Houston, Los Angeles, Northern New Jersey, Philadelphia, San Francisco, and Washington D.C. As *Table 1* indicates, high investment returns are expected in all markets ranging from 14.1 percent to 18.9 percent. The industrial market with the highest expected return is Boston followed by Houston and Washington, D.C. The industrial market with the lowest expected return of 14.1 percent is Los Angeles. The risk associated with these expected returns ranges significantly across markets from 0.3 percent in Northern New Jersey to 2.1 percent in Washington D.C. The estimates suggest that the old adage, "higher returns are associated with higher risk," is not always true. For example, Houston has the second highest return but is by no means the second most risky market. This may be consistent with an inefficiently priced market in which cap rates do not adjust to fully price in future increases in cash flow. Thus, the market presents a buying opportunity without increased risk.

A few things need to be said regarding the high return and low risk estimates for most markets. The relatively high returns are mostly due to the use of existing NOI in the calculation of the acquisition price. Due to the long-term leases characterizing the industrial market increases in rental rates during the recent years are not incorporated in existing lease rates. As a result, rates on existing leases are considerably below market. Thus, by capitalizing the existing NOI (as opposed to stabilized NOR, for example) we have produced acquisition prices that may be lower than the ones investors may eventually pay in the marketplace since sellers will require some premium for anticipated increases in property cash flow as leases rollover to higher market rents. Thus, lower acquisition prices help boost our expected return estimates. Experimentation with acquisition prices based on stabilized NOI (which is calculated using market rates) has produced considerably lower return estimates.

The authors believe two factors are primarily responsible for the low risk estimates. First, the fact that most of the markets are close to the peak of their performance with increasing rents and most importantly, low vacancy rates. To understand this argument, bear in mind that the return and risk measures have been calculated on the basis of investment performance under alternative scenarios. The importance of the low vacancy rate is that it shields the market from any severe investment deterioration in the case of pessimistic scenarios. In addition, the fact that rents are close to their peak does not

Table 1: **The 10 Major Industrial Markets Ranked by Return**

Industrial Market	Expected Return	Risk	Efficiency Ratio
Boston	18.9%	1.6%	8.01
Houston	18.6%	0.8%	16.64
Washington, D.C.	17.3%	2.1%	5.32
S. Francisco	16.9%	0.9%	12.58
Philadelphia	16.7%	1.2%	8.93
Dallas	16.5%	0.8%	12.45
Atlanta	15.8%	1.1%	8.71
N. N. Jersey	14.5%	0.3%	25.33
Chicago	14.1%	0.6%	13.55
Los Angeles	14.1%	0.6%	13.70

Table 2 - **The 10 Major Industrial Markets Ranked by Efficiency Ratio**

Industrial Market	Expected Return	Risk	Efficiency Ratio
N. Jersey	14.5%	0.3%	25.33
Houston	18.6%	0.8%	16.64
Los Angeles	14.1%	0.6%	13.70
Chicago	14.1%	0.6%	13.55
S. Francisco	16.9%	0.9%	12.58
Dallas	16.5%	0.8%	12.45
Philadelphia	16.7%	1.2%	8.93
Atlanta	15.8%	1.1%	8.71
Boston	18.9%	1.6%	8.01
Washington, D.C.	17.3%	2.1%	5.32

allow for increases significantly higher than the base-case in the case of the optimistic scenarios. Hence the relatively low volatility of expected returns under alternative scenarios and the relatively low risk estimates.

The second reason is that the estimated risk measure focuses on the risk from economic uncertainty in the market. While the authors have focused on this risk because they believe it is the most important in targeting markets, there are other sources of risk, including pricing and capital availability. While these additional risks are crucial to factor in when comparing real estate with other asset classes, the authors believe they are not as strong in influencing the relative risk of different real estate markets. Thus, despite some caveats in terms of the accuracy of the estimated return and risk levels, the authors strongly believe that they convey very valuable insights in terms of the *relative* rewards and risks of industrial investments across markets.

An important summary measure of the risk/return profile of an investment opportunity is the Sharpe or efficiency ratio calculated as the return in excess of the risk free rate (assumed to be six percent) over the risk measure. *Table 2* ranks the 10 industrial markets by this efficiency ratio. As it can be seen from this table, the market expected to provide the highest risk-adjusted return is clearly Northern New Jersey followed by Houston. The industrial market expected to provide the lowest risk-adjusted return is Washington, D.C. *Table 2* underscores the importance of measuring risk when targeting markets for industrial investments. Notice that the two markets with the lowest risk-adjusted return, (Boston and Washington, D.C.), are the same ones featured in *Table 1* among the three highest return industrial markets. These are the markets most likely to be chosen by an investor who ignores risk and only focuses on return. However, they are not as likely to be selected by an investor that wants to factor risk in his/her investment decisions.

Targeting Cities for Industrial Investments

In order to demonstrate the usefulness of MPT in targeting metropolitan markets for industrial investments, assume that we want to build a portfolio of nationally targeted industrial investments. For the sake of this analysis, assume that the choices of industrial markets a national industrial investor is faced with is limited only to these 10 markets and that, due to portfolio size limitations, only five target markets will be selected. Spreading investments to more markets would result in an inefficiently low investment amount per market. Below we construct three groups of target cities with alternative methodologies and then compare them in order to identify which of the three methods produces the group of target cities with the most favorable risk/return profile.

The MPT approach is used first. Application of this approach requires, in addition to the expected return and risk estimates, the estimation of the correlations among the assets included in the model. Thus, pairwise correlation coefficients among the 10 industrial markets are calculated using both historical and forecast rent change for the period 1980-2007. Rent changes are thought to be the best available proxy for metropolitan-specific return series because they better capture movements in demand, supply, and asset prices. These correlation coefficients are presented in *Table 3*. As this table shows, there are low correlations among several industrial markets, which can provide significant diversification benefits. For example, the correlation between the Los Angeles industrial market and the Boston industrial market is as low as –0.25. Other pairs of markets with negative correlations are N.N. Jersey and Atlanta; Philadelphia and Atlanta; Chicago and Boston; N.N. Jersey and Boston; Washington D.C. and Boston; and Los Angeles and Houston. The two industrial markets most highly correlated are San Francisco and Philadelphia.

By using these return, risk, and correlation estimates as an input into a standard mean-variance asset allocation model, we are able to identify which five out of the 10 markets under consideration will provide the highest risk-adjusted return. It should be noted that the model was appropriately restricted so that each estimated portfolio is composed of equal allocations to five markets. This restriction has been placed solely for the purpose of simplicity and in order to facilitate comparison of the MPT-derived portfolio with portfolios derived using simple market rankings. The latter were constructed by selecting the five highest return markets and alternatively the five markets with the highest efficiency ratios. These two portfolios are compared in terms of their composition and return/risk profile with the MPT-derived optimal portfolio in *Table 4*. It should be noted that the risk of the simplistic portfolios has been calculated using standard portfolio risk formulas that take into account the pairwise correlations among the different markets.

As *Table 4* indicates, the portfolio based on a simple return ranking of the markets includes Boston, Houston, Philadelphia, San Francisco, and Washington, D.C. This portfolio has an expected return of 17.68 percent, an estimated risk of 0.80 percent and an efficiency ratio of 14.65. This portfolio has, by construction, the highest return. But what about its efficiency ratio? Does the investor take an unnecessarily higher risk for this return level? The portfolio constructed on the basis of the efficiency-ratio rankings of the 10 markets includes Chicago, Houston, Los Angeles, Northern New Jersey, and San Francisco. This portfolio provides a lower expected return of 15.64 percent compared to the previous portfolio, but it does so at only half the risk. As such, it has a higher efficiency ratio than the previous portfolio, thus providing a significantly higher risk-adjusted return. But is this portfolio the best an investor can do in terms of target market selection? The answer is definitely no. The reason is, that portfolio B does take into account both the return and risk profile of each of the industrial

Tables 3 - 4

Table 3: **Correlation Matrix**

	Atlanta	Boston	Chicago	Dallas	Houston	Los Angeles	N.N. Jersey	Philadel-phia	San Francisco	Washington D.C.
Atlanta	1.00									
Boston	0.21	1.00								
Chicago	0.18	-0.08	1.00							
Dallas	0.42	0.28	0.23	1.00						
Houston	0.11	0.03	0.26	0.20	1.00					
Los Angeles	0.24	-0.25	0.71	0.19	-0.03	1.00				
N. N. Jersey	-0.08	-0.02	0.43	0.36	0.10	0.42	1.00			
Philadelphia	-0.03	0.23	0.26	0.08	0.39	0.31	0.53	1.00		
San Francisco	0.19	0.03	0.24	0.37	0.32	0.48	0.62	0.73	1.00	
Washington, D.C.	0.25	-0.07	0.55	0.39	0.04	0.54	0.67	0.26	0.37	1.00

Table 4 - **Comparing Alternative Portfolios**

Industrial Market	Portfolio Based on Return Rankings	Portfolio Based on Efficiency Ratio Rankings	MPT-Derived Portfolio
Boston	X		X
Chicago		X	X
Houston	X	X	X
Los Angeles		X	X
N. New Jersey		X	X
Philadelphia	X		
S. Francisco	X	X	
Washington, D.C.	X		
Portfolio Return	17.68%	15.64%	16.04%
Portfolio Risk	0.80%	0.43%	0.42%
Efficiency Ratio	14.65	22.21	23.68

markets but ignores their correlations. Modern portfolio theory has established that investors can build better portfolios by taking into account such correlations. The proof lies in portfolio C that was derived using the MPT approach. This portfolio is similar to portfolio B with the exception that it includes Boston instead of San Francisco. As *Table 4*, indicates this change not only increases the expected return of the portfolio by 40 basis points but also minimally decreases its risk. In this way the investor can attain an even higher risk-adjusted return. It should be noted that the gains in risk-adjusted return as we move from portfolio B to portfolio C can be more substantial when the analysis includes more markets.

CONCLUSION

This manuscript has presented a new approach to real estate portfolio analysis and a simplistic application to industrial investment targeting. Its innovation lies in the methodology used to generate return and risk estimates for local markets or specific properties. In applying this approach the authors first estimated return and risk measures for 10 industrial markets that take into account their current conditions, their idiosyncratic behavior, and the uncertainty characterizing their economic outlook. Next, they constructed alternative portfolios of five target markets using MPT and simple rankings. The results indicate that the proposed methodology can help real estate investors construct portfolios of target cities with superior return and risk profile. REI

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Defending an Oil Company Against Litigation for Environmental Contamination (a case study)

by Jack P. Friedman, CRE

The purpose of this case study is to demonstrate real estate consulting issues involved in the defense of a major oil company (OIL) that was sued by the owner of an adjacent neighborhood shopping center (NSC) for environmental damages. The NSC amended its theories many times, with the result that a defense was necessarily multifaceted and complex, providing the material for a unique case study. In this new millennium, real estate matters, especially litigation, will surely increase in complexity. Further, notwithstanding the need for specialization, there are many situations where knowledge in multiple disciplines is useful in providing a study of the facts that were needed for a defense.

THE SITE

The event occurred in a large and fast-growing suburb of Dallas, Texas. A service station owned by OIL, located on the southeast corner of an important intersection, is surrounded by NSC *(Figure 1)*. More than nine years ago, one component of an underground petroleum storage tank system experienced a leak or "release." The release was appropriately reported to the Texas Water Commission (now the Texas Natural Resources Conservation Commission or TNRCC), which added the site to its list of Leaking Petroleum Storage Tanks (LPSTs) and began the monitoring process. OIL drilled monitoring wells on its property and, with permission, on NSC's property. Periodic readings showed the extent of contamination over time.

ABOUT THE AUTHOR

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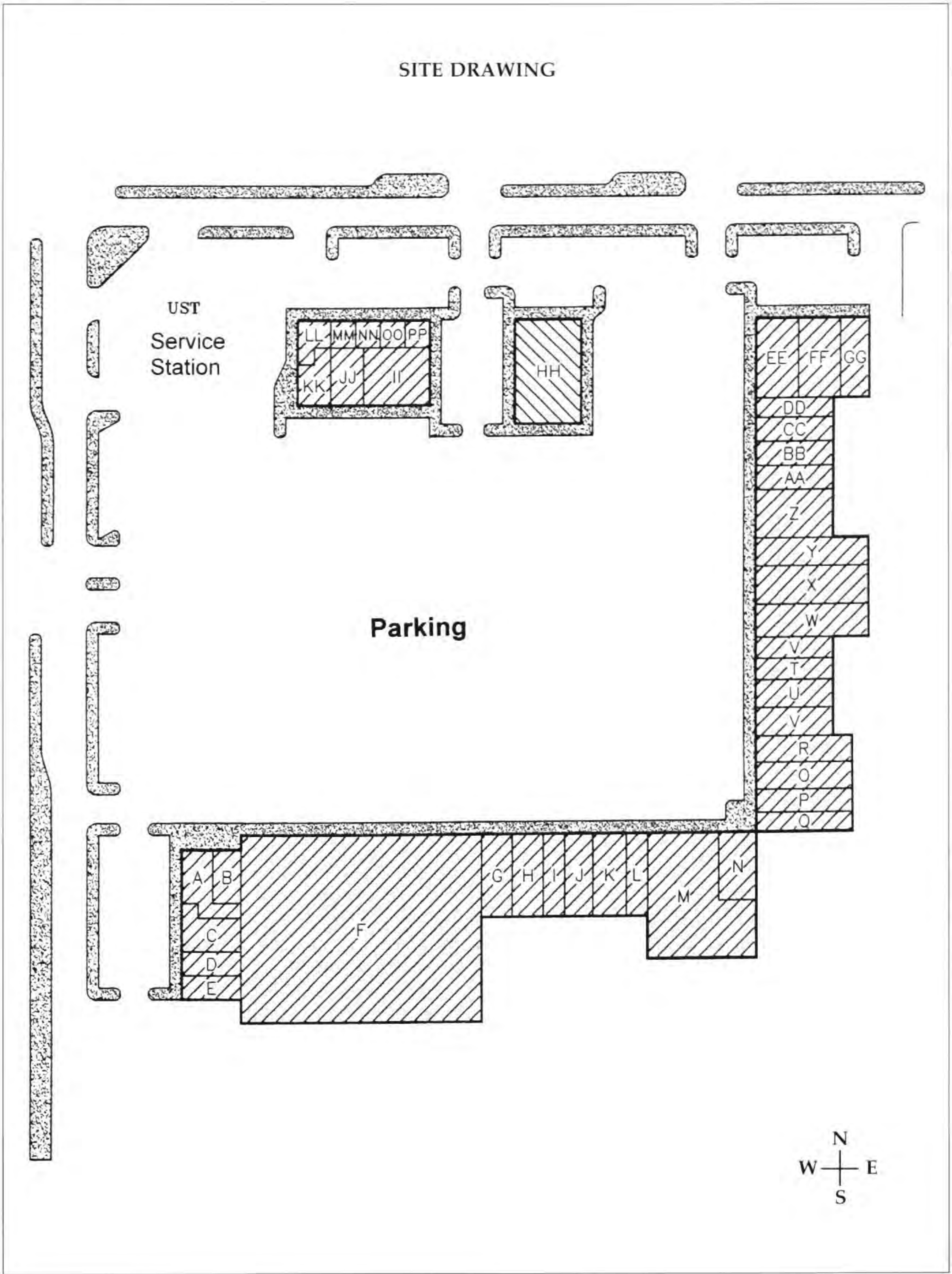
Figure 1 - NSC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THE PLAYERS

NSC

The NSC was initially built in 1977. It was purchased in 1984 by a limited partnership (syndicate) that continues as the current (2000) owner.

The NSC comprises 42 stores, anchored by a supermarket representing the dominant supermarket chain in the area. The supermarket is a 43,000 square-foot store; the total center occupies about 140,000 leasable square feet on almost 14 acres of land. In 1996 the center was refinanced at market rates and favorable terms. In that year, NSC sold a tract of land 164 feet ∞ 170 feet adjacent to the OIL station, to the south.

OIL

The service station, owned by a major oil company, is temporarily closed, awaiting renovation to become a convenience/fast food/self-service station. The dimensions of its site are approximately 170 feet by 170 feet = 28,900 square feet. It is on a corner.

TNRCC

The TNRCC evaluates the priority and the status of each LPST using codes. These are available on their Web site, www.tnrcc.state.tx.us.[1] Priority codes are as follows:[2]

Priority 1:	Emergency level.
Priority 2:	Threat to public places, threat to water supply.
Priority 3:	Groundwater is affected, public water supply is a concern.
Priority 4:	Groundwater may be affected.

The LPST status is catalogued by the TNRCC in six major areas. Within each area are several steps. The six major areas are as follows:

1. Incident report, issuance of initial directives, receipt of initial response.
2. Various report statuses of Phase II.
3. Various statuses of Phase III report, quarterly monitoring report, and remedial action plan (RAP).
4. Remedial action in progress, quarterly monitoring report overdue or received, review pending.
5. Submission of site closure application, various report statuses of final monitoring.
6. Case closed, referred to another agency or program, or inactive.

Regarding the subject site at the time of the trial, it was rated as "Priority Code 4.1, Groundwater impaired, no apparent threats or impacts to receptors. Status Code 6P, Final concurrence pending documentation of well plugging." In other words, this site had ceased to be a problem before the trial began.

THE ACTION

Closure Letter

The TNRCC issued a "Closure Letter" on February 10, 1998. It stated, "No further corrective action will be necessary." The following criteria were stated in the closure letter:

- Currently the site is an active UST facility and predominately covered with concrete.
- A search indicated no water wells within one-half mile of the site.
- The contaminant plume appears to be confined on site and decreasing in contaminant concentrations.
- The extent of groundwater contamination has been delineated to category III target levels.
- The shallow groundwater does not appear to have a local beneficial use. Domestic water for this area is provided by a municipal water supply.
- According to the survey, no significant sensitive receptors were affected or identified at the site. Vapor calculations do not indicate a potential problem.

The NSC's Response

The NSC, which had written to the TNRCC requesting that it not close the case, urged TNRCC to reopen the case. The NSC's position was based on finding petroleum products on its site when installing a grease trap for a restaurant (a new tenant, at LL in *Figure 1*) in 1998, and earlier, in 1996, when digging into the ground to begin construction of a new building on the pad side sold earlier that year just south of the OIL station. The NSC challenged the TNRCC's findings concerning the plume. On October 28, 1999, the TNRCC answered the NSC in a letter providing its reasons for not reopening the case, justified principally by these criteria:

1. Current soil and groundwater concentrations do not exceed theoretical vapor calculations at a known point of exposure.
2. There is no history of phase-separated hydrocarbons at the [OIL] facility.
3. Although the dissolved-phase contaminant plume extends offsite, it appears to be stable. Contaminant concentrations have fluctuated in

[OIL] MW-1, however, fluctuations in contaminant concentrations over time are not necessarily abnormal. Plume stability is considered by evaluation of contaminant concentrations both inside and outside the source area. Since no significant increase outside the source area has been seen, it does not appear that the plume itself has increased in extent or should be considered unstable.

4. Soils and groundwater contaminant concentrations do not exceed Construction Worker Protective Levels or Health-Based Target Levels for a Commercial/Industrial site.
5. The site is an active commercial facility which maintains an impervious cover. Future use of the site is expected to remain the same.
6. The impacted shallow ground-water zone does not appear to have any documented local use. No water wells screened within the impacted interval were identified within 0.5 mile radius of the site.

The NSC hired environmental experts to check levels of contaminants. Those findings, their use in the trial, and the rebuttal testimony of OIL's expert are beyond the scope of this case study, which focuses on the business aspects. In short, however, OIL's experts explained and displayed to the court readings from monitoring wells that were taken and reported regularly to the TNRCC.

NSC's Changing Theories

In May 1998, an environmental company hired by NSC's attorneys provided two cost estimates. One, for further testing of soils, was approximately \$60,000; the other, for approximately \$670,000 was the estimated cost of excavating and removing soil associated with a pad site (approximately 12,000 square feet) adjacent to the OIL station (*Figure 1*, stores II through PP).

The \$670,000 remediation cost for the pad site was then provided to an appraisal firm, which appraised the shopping center at approximately \$12 million if clean, in an unsigned report. The appraisers extrapolated the \$670,000 amount as though it applied to the entire shopping center and provided an estimated cost to remediate all the land (changing out all the soil) of \$27 million plus the cost of rebuilding at \$18.5 million (rounded). Thus, in an unsigned appraisal report, the damages were estimated at \$45.5 million.

This damage amount was later pared down to \$3.1 million by the same appraisal firm, which then

As time passed, NSC's attorneys dropped both the appraiser and the academic as witnesses, without explanation. Just prior to trial, the NSC's lawyer stated that the leak had not caused a loss in property value, which may explain why the appraiser was dropped. We don't know why the NSC's complaint was amended and no longer reflected a loss in value.

considered demolition and rebuilding of the 12,000-square-foot pad building only. Their cost estimate began with \$670,000 for soil removal and replacement, inflated to \$3.1 million through costs of demolition, rebuilding, releasing space, paying tenants for moving and buyouts, and for lost profits. This time the amount was not extrapolated to the entire center, and the report was signed.

The NSC also engaged, as an expert, a university professor who had co-authored several articles on the effect of contamination on property value.

As time passed, NSC's attorneys dropped both the appraiser and the academic as witnesses, without explanation. Just prior to trial, the NSC's lawyer stated that the leak had not caused a loss in property value, which may explain why the appraiser was dropped. We don't know why the NSC's complaint was amended and no longer reflected a loss in value.

When the appraiser and academic were dropped, the plaintiff's case for damages shifted to additional past, present, and future management costs associated with monitoring the contamination, plus the cost of active remediation. In response, the defense refocused on these matters.

Although the TNRCC had issued a closure statement, NSC's law firm located an expert who discussed the need to actively bio-remediate the site. This would involve placing rods under the affected pad building. The process is to suck surface air through the ground, using powerful machinery, drawing soil vapors out to be filtered through charcoal drums. The remediation also suggested indoor monitoring of vapors using canisters placed within tenants' buildings. All of this was prepared for execution by the expert's own company over a 30- to 48-month period.

THE DEFENSE

Because the NSC modified its charges, OIL's defense became multifaceted and complex. The author prepared a number of documents as part of the defense strategy.

Review of Articles by the Academic

The author drafted a critique of the articles prepared by the academic. Of the commercial properties studied, of particular importance was the lack of relevance to the NSC. One factor was the difference in geographical, neighborhood, and economic characteristics between the area in which these properties were located and the location of the NSC. In addition, the academic's findings for commercial property were not statistically valid, despite an assertion of same in the introduction and summary of the publication. The academic had no expertise in appraisal. Because the academic was dropped as a witness before trial, the draft critique was not finalized.

Review of Other Literature

The author made an extensive review of the literature on the subject of LPSTs with regard to property valuation. Internet searches, beginning with RealSource, provided a start. We sought help through two appraisal forums. A hard-copy bibliography[3] was used to help identify the literature. Footnotes and bibliographies in articles often led to additional literature. The *Journal of Real Estate Literature* was useful in identifying existing publications. *Real Estate Issues Research Digest*, Spring 1999, offered valuable information on existing research, and the Fall/Winter 1991 issue of *Real Estate Issues* (vol. 16, no. 2), a special issue on environmental conditions in real estate, was a rich source of literature.

Draft Appraisal Review

Another preliminary work product was an unsigned draft review of the appraisal under Standard 3 of USPAP. Of special interest to this reviewer was the disparity between the operating expenses stated in the appraisal and those reported in the federal income tax returns. Of greater importance, however, was the appraiser's assumption that the pad building would require demolition. Environmental reports by NSC's experts did not assert the need for demolition. They only provided cost estimates for removing and replacing the soil. Accordingly, the draft appraisal review was critical of the appraiser for leaping from a remediation cost estimate to extensive value diminution. This is not sanctioned by USPAP's Advisory Opinion AO-9 nor by Guide Notes 6 and 8 of the Appraisal Institute. The draft appraisal review was not finalized because the appraiser was withdrawn from the list of testifying experts.

Income and Expense Analysis

We compared the income and expenses of the NSC from its annual income tax returns for the years 1991 through 1998. Charts and graphs were prepared and used at trial to demonstrate NSC's consistently rising rent throughout the period to establish the fact that there was no economic injury to NSC from the LPST.

Charts prepared from the tax returns included exhibits showing gross rental income, all deductible expenses, deductible cash expenses, and cash flow. Rapidly rising rents meant a transformation of the investment from tax shelter status to a cash flow generator.

Current Rent Roll Analysis

Analysis of the NSC's rent rolls showed that the NSC was 94 percent occupied at the time of trial, with only two units vacant out of 42 tenant spaces. The vacancies were not near the OIL station.

Tenant File Review

In an extensive review of tenant files, NSC's leases were abstracted to show that tenants were renewing their leases at higher rents. When a vacancy occurred, the space was re-let at an increased rent.

LPST Site Analysis

A physical review of the subject's city and its neighboring city was prepared that demonstrated that the NSC's situation was not uncommon. There were more than 80 LPSTs on TNRCC's list for each city (except for the subject, none were owned by OIL). We plotted the location of each LPST on a map in preparation for demonstrating to the court how prevalent LPSTs are. A list of shopping centers in both cities was obtained from CACI. Not surprisingly, a number of other shopping centers are neighbors of LPSTs.

To answer a potential question about the effect of LPSTs on real estate activity, we identified several of the LPSTs that were in high-traffic areas. We photographed the surrounding area. Then, using dates on building permit data and ad valorem tax data, we demonstrated the existence of new development, adjacent to LPSTs, that had occurred after the initial leak release. We also identified redevelopment (demolition and rebuilding) and numerous renovations for existing and new tenants. Not surprisingly, there were occurrences of these LPSTs at shopping centers that were "clones" of NSC (same anchor tenant, same age range, same size range).

Lender Survey

To answer the question of whether environmental contamination had an adverse effect on the ability to finance a center, we conducted a survey. This was not intended to have scientific, statistical validity; it was an effort to understand local lending practices. Of particular interest was that more than half the lenders surveyed (six out of 11) actually make loans on environmentally impaired property. When faced with an environmental impairment, nearly all lenders increase due diligence efforts by requiring at least a Phase I report. If a "no further action" letter or "closure letter" is received from the state agency, all 11 respondents said they would be inclined to approve a loan.

The NSC had been refinanced in 1996 at favorable rates and terms. However, the Phase I report prepared for the refinancing had incorrectly stated that the NSC was not on the TNRCC's list of LPSTs. At trial, NSC's attorney wanted to make an issue that, had the lender been informed, the loan would not have been made or would have been made on less favorable terms. The fact was that the property was successfully refinanced. After receipt of the closure letter, the point would be moot.

Management Survey

In 1999, NSC prepared a log of management discussions held from 1991 through 1998, with the time spent by each employee and the hourly rate for each. A six-digit amount was derived as additional management costs.

To answer the question of whether an additional management fee is charged for managing a contaminated property, we conducted another survey, this one of property managers in the Dallas/Fort Worth area. Interesting findings from this survey were that an additional management fee is justified for property needing remediation, with fees based on three percent to five percent of the money spent for remediation. When remediation is not required, no additional management fee is due. In addition, NSC's general partner/manager charged its limited partners a routine management fee of six percent of the gross rent. This gross rent includes tenant reimbursement in rent. Our study, plus other sources, indicated that four percent of gross rent is the competitive rate for this type of property, indicating that NSC's management charges are more than sufficient.

At one point, an appraisal of the NSC was ordered by OIL. Its purpose would be to provide the jury with a second report to refer to in their deliberations. When NSC's attorneys withdrew their appraisers, however, the proposed appraisal no longer had any real significance, so the order was canceled.

Ad Valorem Tax Study

The *Texas Property Tax Code* provides relief from ad valorem taxes for environmental impairment (Section 23.14) or in cases of decreased value (Section 22.03). Through tax data, we found that NSC's owners had not challenged their assessment for the current year, and there was nothing to indicate that they had ever appealed the assessment for an environmental reason.

Appraisal

At one point, an appraisal of the NSC was ordered by OIL. Its purpose would be to provide the jury with a second report to refer to in their deliberations. When NSC's attorneys withdrew their appraisers, however, the proposed appraisal no longer had any real significance, so the order was canceled.

Business Judgment

If active remediation were to take place, would stigma result? NSC's bio-remediation expert had prescribed a plan for soil treatment as one that would not make too much noise. Still, it would involve running heavy equipment and placing drums or canisters inside and outside the pad building to monitor soil vapors for at least 30 months. Certainly this would not bring business to NSC and could create a stigma (negative public perception). In addition, the TNRCC did not recommend active bio-remediation and might not approve it because of the soil type. From a business standpoint, then, these activities could create stigma through their negative visual appearance.

SUMMARY OF CONSULTING CHALLENGES

As to real estate consulting challenges, the activities and skills required include:

- Intense understanding of the literature
- Objective review of appraisal reports
- Survey instrument preparation and survey techniques
- Ability to read and interpret federal income tax returns
- Ability to secure publicly available data for ad valorem taxes and building permits
- Graphic presentation of financial data
- Tenant file review, lease abstracting
- Consideration of management issues

CONCLUSION

In summary, it took many skills and a great deal of effort and coordination to present the facts accurately for the jury's consideration. Data provided to the jury from an extensive and intensive multifaceted study proved to be effective, and the jury found for OIL.REI

NOTES

The author wishes to acknowledge: Sean Higgins, Esq.; Karl Locker, CPA; Joe Milkes, MAI; Jack Harris, Ph.D.; Mark O'Briant, MAI; Suzanne S. Barnhill; and Dan McClellan for their valuable contributions to this case study, and especially to Darrell Grams, Esq., a trial attorney with Brown McCarroll & Oaks Hartline, LLP, Houston, Texas.

REFERENCES

1. The TNRCC has informative data and general publications available on its Web site.
2. *Priority levels 1.1 to 1.7:* These range from "explosive levels, or concentrations of vapors that could cause acute health effects" (1.1) to those that are much lower but still could have a health effect or safety concern (1.7). These levels require emergency action.

   Priority levels 2.1 to 2.7: These range from contaminated soils or water that are "exposed and unsecured from public access" and located within 500 feet of "dwellings, playgrounds, parks, day care centers, schools, or similar use facilities" (2.1) to "a public or domestic water supply well that produces from a groundwater zone which is not affected or threatened, located within the known extent of contamination" (2.7).

   Priority levels 3.1 to 3.5: Priority 3 sites range from sites where groundwater is affected within 0.25 and 0.5 miles of a public or domestic water supply well (3.1) to the possibility of affecting a non-community or non-domestic water supply (3.4) or a designated aquifer (3.5).

   Priority level 4.1: Groundwater is affected.

   Priority level 4.2: Groundwater is not affected.
3. Compliments of Bill Mundy, CRE.

COMMERCIAL REAL ESTATE FINANCE - GLOBAL OR LOCAL?

by Bowen H. "Buzz" McCoy, CRE

INTRODUCTION

Commercial real estate has traditionally been considered a local business, based upon locational characteristics and intimate knowledge of tenant needs. Trans-national real estate investment in the decade of the 1980s coupled with globalization of money and capital markets in the 1990s has caused some to believe that commercial real estate is a fungible commodity, which may be traded broadly irrespective of local needs or characteristics. This manuscript attempts to describe some of the linkages between global and local real estate. We shall begin with a brief survey of U.S. real estate capital markets, move on to the international capital markets, and conclude with a statement of how a local business — real estate — can react to global capital markets.

U.S. CAPITAL MARKETS FOR COMMERCIAL REAL ESTATE FINANCE

Perhaps the leading query is: how much longer can our longest sustained growth boom continue without running into inflationary pressures? There does appear to be a whiff of inflation in the air. Labor cost increases are disguised in part by signing bonuses, trips to Hawaii, annual bonus awards, stock options, and the like. Yet many localities are operating at under three percent unemployment, a statistic below traditional reckoning of frictional employment levels. Shortages are appearing in items such as dry wall and copper. The Federal Reserve Bank is practicing a balancing act between keeping interest rates low until the Asian crisis is resolved and moving to higher rates to avoid longer term inflation. Most economists seem to be predicting good growth through the year-2000 Presidential election and a possible shallow slow-down in 2001, caused in part by higher interest rates.

ABOUT THE AUTHOR

Bowen H. "Buzz" McCoy, CRE, *is a retired managing director of Morgan Stanley, a firm which he served for 28 years. He was president of The Counselors of Real Estate in 1997; a chair and trustee of the James E. Gibbons Educational Development Trust Fund; chair of the Center for Economic Policy Research at Stanford University; and a member of the Executive Committee of the Hoover Institution. McCoy was recently named by* National Real Estate Investor *magazine as one of the industry's 100 icons of the 20th century. (E-mail: buzzmccoy@compuserve.com)*

Certain economists posit that the Federal Reserve may have to raise interest rates even if there is low inflation, in order to cut off excessive consumer demand. Such excessive consumer demand has been fueled by the stock market bubble as well as the large disparity of imports over exports. Should the Fed take corrective action to stem excessive consumption and asset value inflation, a recession could easily be the result.

Meanwhile, the competition between public and private sources of capital continues. Insurance companies and commercial banks continue to benefit from Wall Street's liquidity squeeze in the last half of 1998. Spreads on real estate lending remain quite high, compared to the first half of 1998, although availability of funding has improved. Commercial banks remain aggressive on underwriting standards in selective cases. Insurance companies are aggressively marketing whole loans, syndicating such investments among two or three entities, seeking ways to justify higher loans to value and seeking to standardize mortgage documents.

In the public markets, real estate investment trusts (REITs) still represent a relatively small percentage of the commercial finance market. Prices of REIT stock remain depressed as large capital flows continue into Internet, media, and finance companies. The public markets think something bad is going to happen to real estate. REITs have become recognized as slow growth vehicles, somewhat underleveraged from a real estate point of view. They have moved from trading at 15 percent to 20 percent premiums to net asset value to trading at 15 percent to 20 percent discounts to net asset value. Those REITs that are able to reduce expenses, build ancillary businesses, and provide accretional external growth will do the best. Stock repurchases also can improve value. In the long run, the number of REITs will decrease sharply.

Commercial Mortgage Backed Securities (CMBS) have not recovered to the values they represented in 1998. CMBS pricing spreads to 10-year Treasuries remain relatively high for each rating category, and especially high for the lower rated tranches. The "bottom" pieces are priced at spreads to Treasuries roughly double those of early last year. CMBS portfolios have not gone through a down-cycle as yet. There is uncertainty as to how these portfolios will perform. What is a normalized ratio of past due loans and delinquencies during a real estate recession? Who will collate and disseminate the data for these large portfolios? Who pays for such information? Will market makers for such securities stay around during a down cycle? Answers to these types of investor queries are not clear at the present time.

Private equity in real estate continues to be aggressive. Private equity is priced differently than public equity, because of the higher leverage tolerated and the perceived greater investment risk which is sought. One interesting transaction during the initial six months of 1999 was the privatization of a large, California-based apartment REIT. The principal paid a 24 percent premium over the market price of the common stock. As a private market buyer, he was able to roughly double the financial leverage on the properties. He could also integrate the bulk of the properties into his master plan for the entire holdings. The difference between public and private market equity pricing in this case was entirely rational. The transaction is a good case study for the logical difference in public and private market equity valuation.

INTERNATIONAL CAPITAL MARKETS FOR REAL ESTATE

The phenomenon in U.S. capital markets which remains less fully understood is the linkage between domestic real estate capital pricing and the international capital markets. To illustrate the point, why should whatever happens to the Thai bhat affect my ability to finance local real estate? It is a complex issue. Capital markets do not like surprises. In 1998, we had several of them in a row, ranging from Russia, Brazil, and South East Asia to New York and Connecticut where Long Term Capital Management, a large hedge fund, became illiquid. At such times of uncertainty, there is a flight to quality in the capital markets. Capital came out of emerging markets debt, lower grade corporate debt ('"junk bonds"), and real estate debt, causing spreads to Treasuries to double virtually overnight.

Why is commercial real estate debt lumped together with emerging third world countries and "junk bonds?" It is because of the lack of transparency of real estate investment data, lack of solid comparable information, and lack of full disclosure. Real estate is still seen to be a local and a private business. The concomitant lack of transparency is also a deterring factor in U.S. pension funds making larger allocations to this asset class.

The Asian real estate problem has not been cured. There is an estimated two trillion dollars of debt overhang in these markets. In the 1980s, the

Japanese applied local valuation to global markets. The local valuations they utilized were in effect rigged prices, artificially kept high to keep the ruling party in power. The Japanese also took currency risk. In the 1990s, both the currency and the markets went against them. As a result of strong cultural preferences for not admitting mistakes and not acting decisively, little has been accomplished during the past eight years. In the United States we resolved our real estate problems in about five years. We were willing to tolerate windfalls and excessive gains. Our resolved real estate assets were estimated to amount to the equivalent of about two percent to three percent of one year's GNP. A comparable figure for Japan is estimated at 18 percent to 20 percent. Moreover, the quality of unresolved Japanese real estate assets is not good. There has also been a criminal element identified with certain types of Japanese real estate assets. In 1998 Japan resolved $50 billion of real estate assets, or four percent of the estimated $1.2 trillion of bad paper outstanding.

In China, the potential is even worse. Many of the huge state owned enterprises are effectively bankrupt. There is an excessive supply of high rise office buildings in Shanghai and elsewhere, some owned by the Peoples' Liberation Army. The state owned banking system is filled with illiquid paper extended to state owned enterprises and real estate projects. The state owned banks are essentially financed by the savings of the country, including the huge peasant class. It is estimated it will take as long as 10 years to resolve the situation. If denied World Trade Organization membership and other international recognition, there is always the chance that China may become more insular. Along with this is the risk of devaluation of their currency, should the resolution of their economy become unsynchronized, resulting in yet another Asian crisis.

Finally, there is the imponderability of a resolution problem in the Russian economy. Thus one may easily predict further turmoil in the international capital markets from time to time. Real estate capital markets in the U.S. will suffer during such times of crisis, as real estate will continue to be viewed as immature and non-transparent. Private markets such as banks, insurance companies, pension funds, and private equity will benefit from such disruptions in the public markets.

CONCLUSION

Is real estate global or local? Essentially it is local and private, but financing costs are going to be driven by world events, among other factors. Thus real estate is a local business in a global marketplace. A real estate owner-operator must think locally and act globally. Here are some suggestions as to how a typical local owner-operator of commercial real estate may react to the increased complexities of the real estate capital markets.

> ***Why is commercial real estate debt lumped together with emerging third world countries and "junk bonds?" It is because of the lack of transparency of real estate investment data, lack of solid comparable information, and lack of full disclosure. Real estate is still seen to be a local and a private business. The concomitant lack of transparency is also a deterring factor in U.S. pension funds making larger allocations to this asset class.***

- Have a long-term capital strategy, not a short-term tactic of always getting the cheapest capital available.
- Think locally about location, tenant needs and satisfaction, competition, and the like.
- Act globally in the sense of being able to interpret the impact of global events on financing costs and access to capital.
- Line up your capital needs early.
- Have plenty of equity in your project.
- Try to finance a couple of years ahead in order to prevent being in the capital markets at a time of crisis.
- Maintain good capital sources in both the public and private markets.
- Be certain your private capital financing source is not itself dependent on the public markets to lay off its own loans and investments.
- Be prepared to pay a premium, if necessary, for availability of capital.
- On a longer term basis, do what you can, through The Counselors of Real Estate or other organizations, to increase the professionalism and transparency of real estate information.

No one anticipates, or even desires, a "perfect" market for real estate finance. That would take all the fun out of the game. But no one enjoys the capital crunches either; and — from time to time — they will remain with us. So fasten your seat belts; and enjoy the ride.REI

NOTES

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Eminent Domain or Domination?

by Douglas Timmons & Lara Womack

INTRODUCTION

Eminent domain is a very powerful, and therefore, potentially dangerous thing. The legal concept of eminent domain is well established. The U.S. Constitution endorses the taking of private property for "public use," with just compensation. Without it, many of this nation's greatest public-works projects would not exist. Today, however, many local and state governments are using their awesome powers of condemnation, or eminent domain, in a kind of corporate triage — grabbing property from one private business to give to another. A device that has been used for centuries to smooth the way for public works such as roads and parks, and later to ease urban blight, has become a marketing tool for governments seeking to lure bigger business. Communities intent on creating jobs and enlarging their tax bases have stretched the meaning of "public use" to embrace a host of undertakings that promise to improve their economic or social well-being. It is time to consider whether private property rights are being abused. The purpose of this manuscript is to consider just how far the term "public use" can, or should, be stretched before a trampling of private property rights occur.

THE LAW

Eminent domain can be defined as follows: The power to take private property for public use by the federal government, a state, municipality, or private person or corporation authorized to exercise functions of public character, following the payment of just compensation to the owner of that property.

The protection of rights in property lies at the heart of our constitutional system. To the framers of the Constitution, the protection of

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(Continued on page 52)

individual liberty was essential. By enumeration of specific powers granted to various government officials, many felt they had created a government of sufficient checks and balances to ensure individual liberties would be protected. Others felt it necessary to make explicit the most important of those liberties which the Constitution sought to protect. The Bill of Rights did this by specifying freedom of speech and religion; freedom of press and assembly; the right to bear arms; the right to trial by jury and cross examination of accusing witnesses; and freedom from cruel or unusual punishment.

Recognizing that a government could easily abuse these civil rights if a citizen's property and livelihood were not guaranteed, the United States Constitution also imposes a duty on government to protect private property rights. Within the Bill of Rights, numerous provisions directly or indirectly protect private property rights. The Fourth Amendment guarantees that people are to be "secure in their persons, houses, papers, and effects...". The Fifth Amendment states that no person shall "be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use without just compensation." The Fifth Amendment implies the federal government's right to exercise its power of eminent domain. The right of the federal government to exercise eminent domain within any state is not subject to control by the various state legislatures. It is subject only to the Federal Constitution and the statutes emanating from it.

In addition to the Bill of Rights' provisions, the Fourteenth Amendment echoes the Due Process Clause of the Fifth Amendment, stating that "No state shall deprive any person of life, liberty, or property without due process of law." As sovereignties, within their borders and within the limits on their powers as defined by the U.S. Constitution, the states also possess the right of eminent domain. Most state constitutions, actually all but two, specifically give the state this right. What constitutes property for the purposes of the "takings" must be established mainly by state sources of law, including common law, statutes, and state constitutions. State 'takings" clauses are quite important because many of them contain language stronger than that of the Fifth Amendment.

The power of eminent domain in this country is unusual in that it is inherent or implied. The Federal Constitution does not explicitly grant this power. Instead, the law assumes or implies that the power exists in the government whenever a public use will be derived. By the same token, the exact procedure for condemnation is not addressed by the U.S. Constitution. Only certain limitations on the process are enumerated, the most important of which are "due process" and "just compensation."

ELEMENTS OF EMINENT DOMAIN

When exercising the use of eminent domain, the governmental agency must prove that all four elements set fourth in the Fifth Amendment are present. These elements include: 1). private property; 2). must be taken; 3). for public use; 4). with just compensation. Over the years these elements have been broadly interpreted.

Private property may include not only land, but also items such as fixtures, leases, options, stocks, and other items. Our concern in this manuscript will relate to real property and not personal property.

The second element of eminent domain is taking. This refers to the taking of physical property or a portion thereof. It also can occur when the taking reduces the value of the property due to noise, accessibility problems, or other agents. In general, compensation must be paid not only if the property is physically taken, but whenever a restriction on the use of the property is so extensive that it is tantamount to confiscation of the property. The courts traditionally have not recognized the regulation of property by the exercise of police power as a taking. Practices such as zoning restrictions may determine the owner's use and surely may impact on the owner's rights and the property's value.

The last element prescribed in the Fifth Amendment requires that when private property is taken, there shall be compensation paid to the owner that is fair to the public as well as to the property owner. The amount of compensation should be measured by the owner's loss rather than by the public's gain. The measure of damages is often the fair market value of the property harmed or taken for public use. The value for real property is assessed based on the uses to which it could reasonably be developed, a concept referred to as the property's highest and best use. Different states have different procedures for determining just compensation and acquiring title. Some require deposit of estimated just compensation into court, while others do not. Some allow for trial before a jury, while others use the commissioner system of knowledgeable persons appointed to advise the court. The litmus test for any of these proceedings is whether it ultimately affords just compensation for the property taken.

Condemnation proceedings vary according to individual state and federal laws. In general, the proceedings should be conducted as quickly as possible. A proceeding does not require court involvement if the condemnor and landowner enter into a contract for the taking of the property for a public use. A seizure based on such a contract is as effective as if it were done through formal condemnation proceedings.

The condemnation process usually consists of two stages; proceedings that prescribe the condemnor's right to take the property, and proceedings to set the compensation to be paid for the taken property. During these proceedings the property owner may continue to use the property as long as the use does not substantially change the condition of the property or its value.

The owner has the right to due process during the condemnation hearings. They must be notified in a timely manner and given a reasonable chance to address the issues of whether the use the property is being taken for is an actual public use and whether the compensation is indeed just. Due process does not require a jury trial in condemnation proceedings, although various state constitutions and statutes provide for assessment by a jury.

"PUBLIC USE" - AN EVER BROADENING PHRASE

The concept of "public use" has become quite broad. The public use limitation at one time was held by many courts to limit both what the government could acquire and to whom it could delegate the authority to acquire private property. Historically eminent domain was used for very obvious public works projects. More recently it has been extended to include the condemnation of private land for resale to other private individuals or firms for urban renewal. The concept also has been broadened to include quasi-public organizations, such as utility companies, railroads and pipelines.

Originally, courts applied a "use by the public" test to property seizures. Governments could take property only if the public would be allowed to use it. Lawmakers also gave private entities like railroads and public utilities eminent domain power. The test they had to pass in court was called "public advantage." The question to be answered was: "Does the building of transportation networks or energy plants serve the public interest?" After the Depression, governments got into the business of redevelopment, restoring underused or blighted land. In many cases, local government agencies took over the projects when private companies were not willing to assume the risk. These actions were deemed "public use" takings, even if the land ultimately went to private parties.

In the past half century, the U.S. Supreme Court, as well as various state Supreme Courts, have played an important role in extending the ability of governmental agencies to use eminent domain to take property for almost any use they deemed desirable. In a seminal case, Berman vs. Parker (1954), the Supreme Court greatly expanded the notion of "public use."[1] This case involved the constitutionality of the 1945 District of Columbia Redevelopment Act. This Act declared it the policy of the United States to eliminate all substandard housing in Washington, D.C., because such areas were "injurious to the public health, safety, morals, and welfare." The Act also created the District of Columbia Redevelopment Land Agency and granted that agency the power to use eminent domain for the redevelopment of blighted areas. Additionally,

The protection of rights in property lies at the heart of our constitutional system. To the framers of the Constitution, the protection of individual liberty was essential. By enumeration of specific powers granted to various government officials, many felt they had created a government of sufficient checks and balances to ensure individual liberties would be protected. Others felt it necessary to make explicit the most important of those liberties which the Constitution sought to protect. The Bill of Rights did this by specifying freedom of speech and religion; freedom of press and assembly; the right to bear arms; the right to trial by jury and cross examination of accusing witnesses; and freedom from cruel or unusual punishment.

Congress authorized the Agency to lease or sell portions of the land to private parties if those parties would carry out the redevelopment plan.

The landowners argued that their property could not be taken for redevelopment since their parcel was commercial and not residential or slum housing. Additionally they contended that the property could not be condemned for sale to a private agency for redevelopment for a private and not a public use as required by the Fifth Amendment. In a unanimous decision, the Supreme Court ruled in favor of the city's use of eminent domain saying: "The concept of the public welfare is broad and inclusive. The values it represents are spiritual as well as physical. Aesthetic as well as monetary."[2]

In 1981, General Motors convinced Detroit officials that prosperity would follow if the city removed more than 3,500 people and 130 small businesses from nearby Poletown to make way for a Cadillac plant. The court system moved quickly and favorably toward Detroit because the city and its dominant employer, the auto industry, were in the depths of a serious recession. The stated purpose of the Poletown project, supported by the high court decision, was to create and preserve jobs. But the high court did say that cases in which property is turned over to private developers should be reviewed by courts with "heightened scrutiny" to avoid abuses.[3]

Three years later the U.S. Supreme Court gave the ultimate judicial nod to such "takings" by government. In 1984 the court, in a unanimous decision, allowed a Hawaiian housing agency to force large landowners to sell land to homeowners who had previously leased the land on which their homes were located.[4]

In the Hawaii case, the court said eminent domain had traditionally been permitted if it related to any "conceivable public purpose" — and in this particular case, the public use was said to be the anti-monopolistic purpose of the plan. The sweeping language in that case opened the flood gates for cities and counties across the U.S. to stretch the term, "public use," to cover virtually any taking that might create jobs or increase the tax base. Critics also say condemnations sometimes are carried out to help the politically powerful at the expense of those not well-connected.

Few would argue that eminent domain is not a legitimate tool to acquire land necessary for the creation of infrastructure needed to create a better life for a community or region. The public could not function without highways, sewer and water lines, schools, and recreational facilities. Likewise, the public good is generally well served by allowing railways and power utility companies to use condemnation to acquire the right of ways necessary to provide important public services. Condemning properties to create redevelopment zones has also become a generally accepted method for revitalizing blighted areas. At what point, however, should the use of this very powerful process be questioned?

Should governmental agencies use eminent domain to take property next to a public-use facility, such as a downtown arena, to be sold to a private interest so that a parking garage or restaurant can be developed? Should a public agency be allowed to condemn private property of one business to turn that property over to another private business? Should a city or county have the right to force businesses, and even homeowners, off their properties to create more jobs or higher property or sales taxes?

Eminent domain has taken a frightening turn in a very un-American direction and it is time to reconsider if the aggressive use of this powerful tool is not beginning to trample private property rights. Public works and private enterprise are obviously linked, but injecting the power of government to force citizens to surrender their property and their rights to benefit specific business interests is fundamentally wrong.

THE AGGRESSIVE USE OF CONDEMNATION

In recent years, governments have begun to broaden their definitions of what constitutes a public use. Many now use eminent domain as an economic tool, they condemn the property of one landowner or business and give it to another business. Legal scholars and attorneys specializing in eminent domain issues say this expanded definition has placed an additional hardship on property owners who have to prove that land taken is not for a vital public use. The judiciary has watered down eminent domain laws.

Communities that are aggressively using their powers of eminent domain do so primarily to increase tax revenues. They use the catch phrase "economic development" to justify their actions. By displacing a smaller business in favor of a larger one, they expect to generate higher property and sales tax revenues. Is it the right of public agencies to decide which businesses should occupy a particular parcel of land? Zoning ordinances might determine how intense the use can be in a given area, and even what types of businesses are allowed in an area, but these governmental powers certainly cannot force one firm out in favor of another. It has to be frustrating for a successful business to be informed that they must sell their property and move so that some other business can relocate onto their property.

Cities, counties, and regions aggressively compete against one another to attract new business. They also must try to retain businesses they already have. In both cases, large corporations often have tremendous leverage as they play one location off against another location. Economic Development Agencies often find themselves playing a high stakes poker game to attract or retain an important employer. To play successfully, cities must often offer huge incentives to corporate America. If a corporation is big enough, or important enough, they can often get on the "corporate welfare" wagon. Cities regularly give big businesses special tax breaks, free land, and many other concessions. If private property has to be taken from a smaller business to assure retention of a larger firm, or to assure a relocation of a major new employer, so be it. Eminent domain is often the technique used to provide the desired land for the important employer.

In downtown, Pittsburgh a proposed $480 million redevelopment project called Market Place at Fifth and Forbes is causing quite a stir among politicians and local business owners. William Robinson, a state legislator who represents the Downtown area has criticized the city's proposed project. He says the project is moving too fast and isn't fair to smaller, longtime Downtown merchants who are faced with losing their property to a national development firm. Robinson has vowed to draft legislation aimed at narrowing the use of eminent domain, since he fears condemnation is a tool that could figure prominently in assembling property for the Market Place project.[5]

Eminent domain has been used in Pittsburgh and elsewhere to clean up areas classified as "blighted." Congressman Robinson has argued that "blight" has been applied too broadly and that his legislation would include a more precise definition of blight. The Congressman said," I am concerned that local governments and redevelopment agencies have taken a cavalier approach to eminent domain." The city has designated large sections of Downtown and the North Side as Blighted, but Robinson doesn't

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think they are truly in bad shape. He knows that the property cannot be taken by eminent domain until the city declares the property as blighted." The problem I have with this project is that Fifth and Forbes avenues, in their current condition, can hardly be called blighted by any stretch of the definition," Robinson said. "Most of the businesses that will be forced out are not failing."

Another Pittsburgh property highlights the dual problems associated with owning land in an area designated as blighted, and the "corporate welfare" mentality. Back in 1980, the city declared the property on which stands the Pittsburgh Wool Company (PWC) to be blighted.[6] The owners of PWC, Roy and Jeff Kumer, didn't even learn about their blight designation until 1999.

The Kumer's property is legally "blighted" despite the fact that it is clean, well maintained, and houses six thriving businesses that employee more than 100 workers. The Pittsburgh Wool Company received a blight designation because it does not have a front or side yard. In Pittsburgh, an area can be declared blighted if it meets one of 10 vague criteria including such things as "inadequate planning" or an "economically undesirable" use. Once an area has been deemed blighted, the city can easily condemn any property in that area.

On August 11, 1999, the urban development agency authorized the city of Pittsburgh to issue a "declaration of taking" on the PWC property and an adjoining rental property owned by Roy Kumer. To what "public use" would the city put the Kumer's property? After spending $10 million to buy and clear the land, Pittsburgh planned to sell it to the H.J. Heinz Co. for $1.5 million. Heinz officials threatened to leave the city, taking 1,300 jobs with them, if Pittsburgh didn't acquire the land Heinz needed to build a $36 million warehouse and distribution center. Pittsburgh's mayor said, "We will proceed aggressively to file a declaration of taking. We're going to move on this. This is an opportunity to anchor the largest manufacturing facility in the city."

After months of political maneuvering designed to condemn the PWC property, the Heinz Company finally stepped in and offered to make a deal. Heinz finally negotiated directly with the Kumers. Just like many eminent domain cases across the country, it was the private developer, Heinz, and not the city that called for and then called off the condemnation. When the city was proceeding with condemnation, the Urban Redevelopment Agency had told Heinz officials to stay clear. The Agency didn't want Heinz's involvement to undercut the city's "public use" justification.[7] The fact that Heinz, a private company, could remove the threat of eminent domain shows just how private this deal really was. Why shouldn't private firms do their own bidding?

The redevelopment agency in San Jose, California, provides another example of an agency using eminent domain to benefit large businesses. That agency used the eminent domain process to acquire private property needed for a second Adobe Systems, Inc., office tower next to its downtown headquarters. Even though the property was needed for private use, the agency justified the condemnation based on the sheer magnitude of the project, and therefore its positive impact for public interest.[8]

The same agency threatened to use condemnation to take a downtown building that Woolworth Corp. once occupied. Woolworth planned to divide the building to house a subsidiary retailer, Champs Sports, and a Burger King. The redevelopment agency had other plans for one of the largest ground-floor retail spaces in the downtown area. They hoped to lure a more coveted retailer, Ross Stores, into the building, and were willing to use eminent domain if necessary to orchestrate their development desires.[9]

Ultimately, city council was able to purchase the property without resorting to the use of condemnation. The property is located in a redevelopment zone, but should the government decide that one retailer is more desirable than another business? Wouldn't this plan send the wrong message to other downtown property owners by suggesting retail favoritism?

A Texas case provides yet another example of just how far some redevelopment agencies are willing to be go to use public money, power, and influence to help powerful private corporations, builders, and developers. Indianapolis-based Simon DeBartolo Group owns shopping malls all across the country. In Hurst, Texas, a suburb of Fort Worth, they own the NorthEast Mall. The DeBartolo Group decided that in order for their mall to be competitive in the Dallas-Fort Worth area they needed to expand to add anchor stores. The city approved the expansion proposal, and even agreed to share local sales tax revenues with the mall developer and to repay its land acquisition costs. It was important to the city to accommodate the mall, since over 60 percent of the town's tax revenues were generated by this shopping center.[10]

To make way for the expansion, 127 homeowners would lose their homes. Most of the homeowners were willing to sell their homes, they were receiving offers that exceeded the appraised value of their homes. Not all of the homeowners wanted to sell however, and those unhappy with being forced to give up their homes refused to accept the developer's offers.

At this point, City Council voted to use its power of eminent domain to take the homes of holdouts. City Council member Henry Wilson said, "right, wrong, or indifferent, we're a partner with Simon DeBartolo." City Attorney John F. Boyle Jr. said "the person getting property taken can't distinguish between a park or school and a shopping mall." The plaintiffs attorney, Scott Moran saw it differently, "if you're big enough and powerful enough, you can get a city to do your bidding."[11]

The issue of public necessity will also be a focal point in court battles over the taking of land for Detroit's riverfront casino district. The Detroit city council voted 6-3 in March of 1999 to approve the use of eminent domain condemnation for the casino district.[12] City officials have cited the creation of about 12,500 permanent casino jobs, in addition to construction jobs, in saying that the casinos constitute a public purpose. The city and the developer actually even refused to negotiate with the property owners for a voluntary purchase at a market derived price. Instead they preferred to take the land by force. Condemned businesses are much cheaper than those purchased on the open market, because the owner is only compensated for the property, not the value of the business.

The city expects to condemn long-term industrial and retail businesses down by the waterfront to make room for casinos that will be financed by public bonds. They also will take properties from longtime residents for more upper class housing while cutting the taxes for the new homes. Both projects provide huge financial benefits to private developers, private businesses, and private citizens. Fred Steinhardt, a local attorney familiar with eminent domain cases, says "If casinos are declared a public necessity, the eminent domain law will have been reduced to form and striped of substance." Detroit may face a tough fight if the public necessity challenge is raised. A recent New Jersey court ruling that dealt with condemnation for casino use in Atlantic City may provide precedent for this case.

In the Atlantic City case, a powerful businessman tried to get local authorities to use condemnation to acquire a next door property for expansion.[13] Vera Coking's rundown boarding house happened to be located next to the Trump Plaza. Trump thought the property was an eye sore that needed to be torn down. He tried to buy the property, to expand Trump Plaza parking, but Coking would not agree to sell. Trump then went to the city asking that they use their powers of eminent domain to take the building, which he would then raze. James Whelan, Mayor of Atlantic City, said: "We are rebuilding Atlantic City. The Future of this city is not Vera Coking's boarding house."

At Trump's request the State Casino Reinvestment Development Authority began condemnation actions against the property in 1994. State and city officials said the move would further the city's plan to add more hotel rooms for the support of their new convention facility. Lawyers for Vera Coking said the plan was a ruse to allow Trump to avoid paying market value for the land.

In a decision that could prove important throughout the country, the New Jersey Superior Court said that taking the land by eminent domain was flawed because it set no limits on what Trump could do with the land after he got the property.[14] The Casino Reinvestment Development Authority claimed that the purpose of the condemnation was to provide limousine parking and landscaping for the Trump Plaza Casino. These improvements would in turn improve parking, traffic control, and green space in the area. The court examined the contract between Trump and the agency and found that it did not limit Trump Plaza to using the property in the way

Communities throughout the country are extending the legal interpretation of when a taking is for the public good. By stretching the power of eminent domain, particularly when it means favoring one private business over another, governments are eroding private property rights. Condemning viable homes and businesses to private developers engaged in profit-making ventures bears no relationship to the intentions of the founding fathers embodied in the Constitution. The courts have generally abdicated their responsibility to protect individual rights and limit government powers.

approved by the agency in the development plan. Instead, the contract gave Trump a "blank check" to use the condemned property as he wished. The court's ruling takes a well-established legal doctrine, the rejection of government action when the real purpose is different from the stated one, and applies it in a new context.

The decision has no effect outside of New Jersey, but for those who feel private property rights are abused by such "takings," this ruling is important. The New Jersey court said there was no guarantee of a public benefit strong enough to justify condemnation of property to turn it over to a private business. If the ruling in this case sets precedent throughout the country, it will be a revolution in condemnation law and an important restraint on governmental powers. Land use lawyers may finally have a powerful tool in opposing condemnations and an instruction manual on how to use it.

Can a city condemn sound property to transfer it to private business? The courts, in most cases, have answered that question in the affirmative. To the dismay of property rights groups across the country, the U.S. Supreme Court has ruled that "public use" is anything government says it is. The state courts are frequently following suit by allowing governmental agencies to take private property for uses that would have once been unfathomable.

CONDEMNATION POWERS FOR PUBLIC SERVICE CORPORATIONS

Historically, companies furnishing utility services, such as electricity or telecommunications, were assigned discrete operating territories in which they were the sole providers of a particular service. Granting such companies the power of eminent domain was a reasonable public policy measure. The power to condemn right-a-ways for the placement of needed electric power, water, and telephone lines was necessary to bring vital public services to customers located throughout their trade territories.

In today's new competitive era, many companies are vying for the same blocks of customers as existing monopolistic service territories are being dismantled by law. This is particularly true in the telecommunications industry, and is likely to occur in the power generation and transmission sector also. Such companies are incorporating as public service corporations, and under existing law these companies clearly have condemnation powers once they acquire certificates to operate or build facilities as a "public utility."

The very real possibility exists that the same parcel of private property could be encumbered by numerous easements of competing companies seeking routes for fiber optic lines, cables, power lines, etc. Should one, or perhaps many different properties possibly be criss-crossed by several public service lines, all offering essentially similar services to end users some distance away? States will grapple with the very real question of whether public policy still requires that private companies of this nature be allowed continued use of the power of eminent domain to the same extent permitted in the past.

U.S. INTERIOR DEPARTMENT LAND ACQUISITION PROCESS - "THREATENED CONDEMNATION"

It is apparent from the examples discussed above that various government agencies have taken full advantage of the judiciary's broad interpretation of the term public use to seize private property. This is not the only manner in which those legal bodies have pushed their authority to its limits. They have also made liberal use of the concept of "taking" to restrict the rights of private property owners.

The land acquisition process utilized by the Interior Department, which oversees the National Park Service, frustrates many landowners. Once a Park Service formally authorizes an expansion of an existing park, Congress must approve the plan. The landowners whose properties fall within the designated area are notified. This, however, does not mean the Interior Department stands ready to actually acquire the property. Unfortunately, Congress must also appropriate the funding necessary to buy the lands incorporated in the expansion plans. This process often takes years to complete and leaves affected landowners unsure of where they stand.

Recent actions in Murfreesboro, Tennessee, highlight the issue. Stones River National Battlefield would like to expand the existing park boundaries by an additional 750 acres.[15] If the Park Service condemned the acreage, and the park expansion was deemed a worthy "public use," that might be the end of the story. The eminent domain process would be used in its normal way, the property would be taken and just compensation would be paid.

The property owners affected do not know, however, when their properties will be taken or what compensation they will be entitled to. The property owners point out that the Park Service has yet to purchase 200 acres from the last Stones River National Battlefield expansion, which occurred eight years ago. The landowners know that property included in the expansion plan has limited value since no one would buy the property for development purposes not knowing if and when the land might be taken for park use. In effect, the Interior Department has condemned the land, but not paid just compensation.

Should the property owners bear the cost of not being able to develop their land, and having to wait an unknown time for compensation? This case illustrates a perverse form of "threatened condemnation."

SUMMARY

The use of eminent domain is a necessary power of government. Many of this country's finest public-works projects were constructed on land condemned by the eminent domain process. Defining, however, an appropriate "public use" is an entirely different matter. The courts, both the Supreme Court and State Courts, have ruled in ways that make it quite easy for governmental agencies to abuse the use of a very powerful legal tool. Communities throughout the country are extending the legal interpretation of when a taking is for the public good. By stretching the power of eminent domain, particularly when it means favoring one private business over another, governments are eroding private property rights. Condemning viable homes and businesses to private developers engaged in profit-making ventures bears no relationship to the intentions of the founding fathers embodied in the Constitution. The courts have generally abdicated their responsibility to protect individual rights and limit government powers. Until new rulings return substantive meaning to three little words in the U.S. Constitution -"for public use"- governments will continue to take property for almost any reason at all. REI

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(continued from page 44)

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CRE PERSPECTIVE

Counseling in the Public Sector: The Pepsi Center

by Peter D. Bowes, CRE

In July 1994, Mayor Wellington Webb appointed a Sports Facility Task Force and the co-chairmen were Dan Muse, city attorney, and me. I do not know why I was picked, unless it was because of my involvement with the Downtown Denver Partnership that had submitted a list of names for the Mayor to consider for the Task Force in general. The request came directly from Mayor Webb and I accepted. The Mayor thought the whole process would take about three months.

The Task Force was to consider negotiating or renegotiating relationships with the Denver Nuggets and the Denver Broncos regarding their perceived needs for new stadiums.

Mayor Webb had a few instructions in our consideration:

- Financially, the City had to be as well off after the negotiations as it was before.
- The teams had to commit to play in Denver for 25 years.

Members of the Task Force, totaling about 30, equally divided between the Nuggets and the Broncos groups, were made up of a broad representation of our community — they included people with downtown interests, lawyers, finance people, union representatives, contractors, political representatives, community leaders, etc.

Note: *Because the negotiations with the Nuggets advanced to a deal on a new stadium, I will tell that part of the story.* When the negotiations started, the Nuggets were owned by Comsat. Comsat also owned the Avalanche that was playing in McNichols and would be playing in the new facility. For simplicity, the negotiations were always described as being with the Nuggets. Over the term of the negotiations, Comsat spun off a subsidiary called Ascent that owned several operating parts, including the Nuggets and the Avalanche. Comsat controlled Ascent until the end of the negotiations when, one month before our final agreement was reached, Ascent was fully spun off from Comsat and became an independent operating entity with similar but different shareholders and an independent board.

For about three months, the Nuggets made presentations to the Task Force explaining why they believed they needed to replace McNichols Arena with a new state-of-the-art facility that would be paid for mostly by them. One of the questions that kept coming up was "if the Nuggets were going to pay for the stadium, why was there any discussion at all about reaching an agreement?" Well there were several reasons:

- The Nuggets were playing basketball at McNichols Arena under a lease that would expire in 2008. They needed to be released from that lease and that took political action.
- The City had a surcharge on tickets that was used for the operation of their facilities and arenas. Because the Mayor said that, financially, the City had to be as well off after the negotiations as it was before, replacement of those dollars was important.
- As we got into the negotiations, it was clear that there were other public needs regarding rights-of-way, access, signage, etc.
- The contracts needed to be approved by City Council.
- The City Council had to approve the development plan (Planned Unit Development).

This clearly was a PUBLIC/private deal. We suggested that the Nuggets not talk about this being a purely private deal or they would lose the deal.

NEGOTIATING WITH THE NUGGETS

The Nuggets Task Force concluded that although McNichols was physically usable, it was functionally obsolete given today's requirements of club seats, boxes, etc. As a result, the Task Force authorized negotiations with the Nuggets.

The Task Force appointed a negotiating team that included: Peter Bowes, CRE, co-chairman of the Sports Facility Task Force; Mary Kelley, chairwoman of the Nuggets Task Force; Dan Muse, City attorney and co-chairman of the Sports Facility Task Force; Debbie Ortega, City councilwoman; and Cathy Reynolds, City councilwoman. Others that were part of the negotiating team were City staff members: Bar Chadwick, City Planning Office; and Liz Orr, City Director of Finance. Outside consultants included: Thomas Ragonetti, attorney; and Craig Skeim, sports facility consultant.

When we and our counterparts with the Nuggets met, it was a full room. Mary Kelley and I were the only ones not being paid by anyone. We were volunteers, with no commitments other than to do the best we could to negotiate a fair deal, one that the City and the Nuggets could both afford and live with for 25 years.

Before and during our negotiations, support and direction came from the full Nuggets Task Force. This kept the broad representation involved in the process.

NEGOTIATING THE DEAL

The first attempt at negotiating the deal was during the 1994 Christmas holidays. We met several times a week, sometimes eight hours at a time. Shortly after the holidays, we reached a conclusion on numbers and the rent that the Nuggets would to pay to the City, but stumbled on an index of that rent. There was no give on either side regarding indexing the rent and we thought the deal was dead.

Because the Nuggets organization was a master at marketing, we expected them to argue their case in the press. We met to develop our approach, which basically was damage control. We arranged a press conference for that afternoon and, as it turned out, the Nuggets did nothing with the press.

The Mayor called and asked if I would meet with him before the press conference. Because time was short I asked him if there was someplace I could park that was close and easy. I ended up parking in a small inside parking area in the City and County building that few ever get to see, much less use, and then I rode up in the elevator reserved for the Mayor, other special dignitaries, and prisoners. I did not know that the elevator was there and probably will never get to ride in it again.

What the Mayor wanted to talk about was whether I and the City team could meet with him and the Nuggets team after the press conference or sometime in the evening, so as not to let this opportunity get away. I told him I could after the press conference, after teaching school, and after going to a family dinner party.

NO DEAL?

The press conference started with the statement "the deal is dead." We then described what we had all been through and how hard everyone had worked. We complimented the Nuggets on their participation in the community but we were just not able to make a deal. The only statement that got on the news was "the deal is dead."

The Mayor did arrange for everyone to come back about 9:30 p.m., and the faces on the Nuggets team were anything but friendly because all they had heard was "the deal is dead." But through that effort, the Mayor got a commitment for us all to meet again the next day.

This was a long day for me. It started at 8:00 a.m. and ended at 2:00 a.m., with time out for teaching and dinner.

The next day we met again, worked out a deal, and developed a letter of agreement. If the Mayor had not invited us all back the night before, I do not know what would have happened, but developing any type of a deal would have been much harder and taken much longer. The Mayor's leadership was terrific.

The next task was to draw up contracts and consider some technical legal issues. After about 90 days we were within hours of having contracts ready to sign when a Colorado Supreme Court ruling came down about possessory interests. Effectively, it said all possessory interests, any private company, even in a publicly-owned facility, would pay possessory interest taxes. Since this deal was based on there being no real estate taxes, possessory or otherwise, this was a near fatal blow. The Colorado Legislature passed legislation before the end of its session in June that would remove the possessory interest tax. The Governor, with lots of support, vetoed the bill because it was done too quickly, was not well thought out, and probably would not survive any legal tests.

HURRY UP & WAIT . . .

Then we went into the doldrums. There was a mayoral election in May, at which Mayor Webb was re-elected. There were some new city councilmen. Through the summer, there was a lot of change in the leadership of the Nuggets' organization. They hired Tim Romani to build the new stadium. Tim had just finished building Comiskey Park in Chicago and was ready for a new challenge. He did not know there would be nothing to do for awhile.

Not much went on between June 1995 and January 1997. This was 18 months where we had infrequent meetings at which there was little or no progress. Two things did happen; the Colorado Legislature passed legislation that removed possessory interest taxes, and the Nuggets told us they could not afford the deal they agreed to in January 1995.

I am satisfied there was no will on the part of the Nuggets to do a deal. Comsat was still in charge and Ascent was a stepchild. Their interests would have been best served to get the deal done and the facility up as soon as possible, but that was not going to happen.

The Nuggets and the City jockeyed for position, often in the press:

- The Nuggets announced they were discussing a deal with Douglas County (part of the Denver metropolitan area, but way south and without a concentration of people).
- The Mayor had a press conference where he set a Coke can on the lectern.

These types of things just made everyone mad and hurt our ability to get anything done.

A GRIM FEBRUARY

In February 1997 there was a meeting that we thought would work out details from earlier meetings. It was scheduled to be short and I could not go at the time it was called. I called to check in and those that were there asked me to come, suggesting that there was progress. Then we broke for lunch and the bottom fell out. After lunch, the Nuggets had changed everything, would not agree to anything they had agreed to before lunch, and things that were matters of degree they would not consider.

I got a pit in my stomach because the games that were being played were all beyond reason. I was angry. For the first time, I had the feeling that the deal might not happen. I raised my voice and it quivered and broke. A terrible day.

After that terrible meeting in February, we talked to Tim Romani and suggested that this deal needed to be touched every day by someone at the Nuggets and that he was the one who needed to do it. He had a vested interest in getting the deal done so he could build the stadium, and the other key people for the Nuggets were not always available and their minds were not focused on this deal. Tim took that suggestion and things started to happen.

TRIMMING THE TEAM

To get rid of some of the antagonistic personalities, we reduced the negotiating team further. The City's team was: Tom Ragonetti, lawyer; Liz Orr, City Director of Finance; Craig Skeim, sports facility consultant; and me. Tim Romani was the Nuggets' key negotiator and he had comparable support.

There were a lot of issues that needed to be resolved:

- The City wanted a minimum rent, referred to as a floor, to protect it from a time when there could be a basketball strike. If that was going to happen, the Nuggets wanted an upper limit, a ceiling, to allow them to get the benefit of the significant upside that it would produce. The Nuggets did not want the floor and the City did not want the ceiling. We had to go back and explain again that what we needed was something that was fair, and if there was going to be a floor there needed to be a ceiling. There was a basketball strike the next year which illustrated why the city needed the floor.
- Effective replacement of seat tax funds to support other City theaters and arenas facilities was needed. This ended up being a sliding scale with maximums and minimums based on attendance.
- McNichols Arena would not necessarily or automatically be torn down, and operations at McNichols needed to be handled by someone. The most logical one to do that was the Nuggets because it was operating an arena that would take the major events away from McNichols, and McNichols would be available to take lesser events and events on days when the Pepsi Center was already being used. But how much should the Nuggets be paid?... what is a major event? . . . what is a minor event? — difficult to get resolved. This was a place where Craig Skeim's background was a leveling influence and helped settle the issues.
- There had to be cross guarantees that dealt with the requirement that the Nuggets and the Avalanche play in The Pepsi Center for 25 years. The guarantees were such that whether the parent organization, the Avalanche organization, or the Nuggets' organization (each separate corporations) failed, all other parts of the agreement would stay in place. This was a key issue and gave the City the security it needed to be sure that the teams would be in Denver for 25 years.

So the stage was set to finish the deal. What might seem like an unrelated event, but I am sure was a very influential event, was the fact that Comsat was going to spin off all of its ownership in Ascent (the Nuggets). That was going to happen June 30, 1997. That allowed the Nuggets to focus on this as a deal and get on with it. The agreement, in principle, between the City and the Nuggets, was signed in July 1997.

The rest was really a fast track:

- contracts were ready by October;
- the PUD (zoning) was approved in November;
- the Nuggets closed on the site purchase for the facility two days after City Council approved the PUD;
- one week later construction started;
- the facility opened in September 1999.

This was an amazing journey. Three months turned into three

Photographs 1 - 3

Photograph 1:
McNichols Arena

Photograph 2:
The Pepsi Center

Photograph 3:
The Pepsi Center

years, and we had no idea what was going to happen when we started. The whole thing just grew. There were highs and lows, personalities and styles, public and private. What an education! Not really a real estate deal, but real estate related. The key was to work for something that was fair, and that needed to be the focus. We lost track of that sometimes, but had to keep coming back, never losing sight of what was fair. Being an unpaid volunteer helped me to focus on fair without there being any perception of advocacy or bias for the City.

LIFELONG BENEFITS

After the hundreds of hours that were spent in this effort, my memory will be of the people. Some good, some not so good. I knew some from before. Know them better now. Some that I met during the negotiations are my friends now.

Mary Kelley and Craig Skeim became more than just business people to me. I got to know their families beyond the business efforts we shared. I will never forget this.

Tim Romani and I became very good friends. On the day of the announcement in July 1997, the *Denver Post* included two articles written by two different reporters. One about Tim and one about me. We each credited the other with the success of the negotiations and told of our amazing friendship. This too, I will never forget.

Overall, I learned a lot about real estate, politics, and people. Some I wish I did not have to learn, but was amazed that I had never been exposed to it or learned about it before. I spent more hours in these negotiations than I can count and it was worth it. I would do it again.

My father, Eugene Bowes, CRE, encouraged me, through his example, to volunteer. I do, and I enjoy it. This was an example of it.

My wife Devon, my best friend and critic, listened and encouraged and consoled and counseled. As always, a key to my well-being and effectiveness.

Working on this negotiation was the most diverse, challenging, and educational counseling experience I have ever had. Glad to have been asked . . . glad to have been able to help. REI

NOTE: *This article is based on the author's memory. Facts and events presented are his recollections. Obviously, all parties involved would have individual interpretations of the events.*

ABOUT THE AUTHOR

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FOCUS ON THE ECONOMY

THE END ISN'T NEAR . . . BUT REPENT ANYWAY!

by Hugh F. Kelly, CRE

Well, we have gotten through Y2K without needing to draw on all that bottled water and canned food. The survivalists have come back from the mountains. The confetti is cleaned up from Times Square. Airplanes didn't fall from the sky. At last report, ATMs had not cycled back to the year "00" and were still dispensing dollars, not wampum. Even the hangovers have gone away by now.

When I was growing up, magazine cartoonists had clipart of a bearded, rumpled old man carrying a sign saying, "The End is Near!" The punch line would vary, depending on the news of the day. But the comedy was always the same: the out-of-touch doomsayer with the millenarian message versus the go-getters who made the world revolve. We, the readers, always knew something that the local Nostradamus couldn't see and our laughter never involved adopting his perspective. The end *wasn't* near; the party was destined to go on. That was the point of the joke.

By the time this edition of *Real Estate Issues* is in your hands, we will have passed another significant event on the calendar. The present economic expansion will have set a new record for longevity. Young people who were in grade school at the time of the last recession will be preparing for their college graduations. Their fortunate older brothers and sisters, who were given a few shares of Microsoft as a graduation present in 1991, are now gazillionaires if they have had the sense to hold on to their grub-stake. When will the party end? Even for those of us who still cling to a belief in the business cycle, there is no date fixed for the ball to drop, signaling the end of this extraordinary period of growth. Our economic times are worth reflecting upon, as they have been exceptional not only in length, but in the magnitude and the character of their vigorous gains.

First, it should be said that no expansion dies of old age. Typically, recessions are the result of either economic suicide or homicide. The "suicide" scenario involves death from overdose, too much of the high life that overheats some critical economic sectors until a reaction sets in. Such recessions are, in effect, corrective measures in our economic system. "Suicide" is probably too final a term, as the mechanism of a recession in fact serves to slow down the economic pulse, rather than arrest the heartbeat entirely. The "homicide" recessions are those either deliberately induced (such as the inflation-killing recessions of the early '80s, engineered by the Fed under Paul Volker) or those that are triggered by hostile maneuvering (including the oil crisis downturn of the mid-'70s and the Gulf War recession of nine years ago). Again, "homicide" overstates the case since we have, up to now, always been able to rebound from the crisis.

Second, and notwithstanding the frequency with which we see real GDP growth soaring above four percent, this economy has not been hitting on all cylinders. We have been congratulating ourselves about the breadth of the American economic revival, most notably seen in a three-month skein of 4.1 percent national unemployment, the best jobless rate in 30 years. But we actually have had many soft spots in the past year or two. A simple list would include:

- A manufacturing sector which has seen recent employment losses in all industries except for automobiles
- A capacity utilization rate that was 80.7 percent in October, an indication that our production chain is relatively slack given the duration of this expansion and that the surge of investment in plant and equipment during the '90s is seeing sub-optimal returns
- A negative trade balance of historic proportions, with each quarter's dip in the current account creating a drag, now approaching $100 billion every three months, on total GDP
- An absolute drop in exports (not just a lag relative to high import volumes) from approximately $680 billion in 1997 to $660 billion in 1999
- Federal belt-tightening that has seen government spending growth slip behind real GDP increases, not only in social programs but in defense (0.9 percent nominal growth in Fiscal 2000, or a loss in constant dollar spending) and in net interest payments to the private sector (one of the consequences of a budget surplus that lets us retire high-yield Treasury debt)
- An agricultural economy that is truly distressed, with net farm income at its lowest level in a decade
- We shall probably never know the extent of the productivity wasted in the obsessive attempt to exterminate the Y2K computer bug, but it cost at least a couple of decimal points in GDP during 1998 and 1999.

In the face of such measures, it is all the most stunning that we have not only kept growing for so long, but have continued to expand robustly. The list immediately above, however, does not exhaust the sources of concern. Socially, we have to worry about our incredible shrinking savings rate, the persistence of the underclass in the midst of general prosperity, and the question of why – for all our wealth– we find large swaths of the population unable to find decent housing, medical care, or quality public education. And, with the Japanese model squarely before us, we need to consider the helium-powered stock market and the potential consequences of Wall Street running out of gas in the near future.

Real estate professionals do well to attend to the total economic picture, good and bad. Real estate is best conceived as a residual product of economic activity, receiving its value from the ability to provide functional, well-located, pleasing, and economically appropriate facilities. Real estate exists to house people and their interactions at work and play, to provide a place to fabricate, store, distribute, and sell goods. The very term "economy" comes from the Greek *oikos*, meaning "house." I have found that real estate, with all its tangibility, is an excellent vantage point from which to view the economy as a whole, since property value so intimately reflects economic demand stemming from every conceivable sector.

If I have my reservations about the current good feelings about the economy – based upon the factors I've listed – I still do not see any immediate stumbling block that would end the successful run of GDP gains in the near future. We have too much momentum thus far in 2000 for any sudden contraction to be likely. Industrial production figures started to improve last summer and the National Association of Purchasing Managers Index for November was solidly positive. Real personal income is advancing smartly and consumer confidence is high. Thus, we have just had the best holiday sales season in more than a decade, both in stores and on-line. After-tax corporate profits have doubled since 1990 and are up 5.5 percent in the past year. We have a Federal Budget in surplus, giving the government plenty of ammunition for economic stimulation should it be needed. And we already have a high real interest rate – the spread of short-term rates over the CPI – that gives the Federal Reserve tremendous monetary flexibility should it be needed, as it was in late 1998.

No wonder that there is snickering at any suggestion that "the end is near" for this cycle. Our biggest danger might be complacency, the optimistic belief that growth will go on forever. Real estate analysts know what this unrealistic faith looks like: revenue projections that grow faster than inflation throughout the cash flow projection, coupled with an aggressive discount rate to calculate Net Present Value.

In fact, we don't know which of the numerous economic risks lurking out there might tip the economy into recession. It is important, though, to recognize that the risks are real. During the long and very impressive cycle of the '90s we dodged a couple of exceptionally serious troubles, including the threat of a commercial banking collapse in the U.S. between 1990 and 1993 and the potential for a severe global decline in 1998. Our hope in continued expansion is the likelihood that many of the weaknesses listed above are already in the process of correction. But the economy gives us no guarantees.

Don't be too dismissive of that old gentleman or his sign. As is so often the case, there is great practical benefit in a biblical injunction: Be watchful. You do not know the day or the hour. The best insurance against the ill effects of a recession, after all, is to anticipate that you will one day need to cope with the downturn. The best time to start that planning is now. REI

ABOUT OUR FEATURED COLUMNIST

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FOCUS ON RESEARCH

REAL ESTATE VALUE CYCLES - CRITICAL KNOWLEDGE FOR THE 21ST CENTURY

by Peter F. Korpacz

As radical as the changes in the real estate market have been over the last 10 years, the timelessness of real estate remains intact.

The real estate recession of the early '90s wreaked financial havoc on investments saddled with the enormous overbuilding of the 1980s without the corresponding effective demand. Later in the decade, however, it gave way to a startling recovery with vastly improved occupancies and double-digit market rent increases. In the process, the public markets (REITs and CMBS) emerged as the catalyst for disciplined and adequate real estate investment dollars.

And yet, what else is new? Haven't we been there before? For some of us, more than once in our careers? Some of the same suspects and a few new ones, only a different time? The one constant through it all, peaks and valleys, is the cycle of real estate performance. Market cycles are timeless, and the process is unlikely to change.

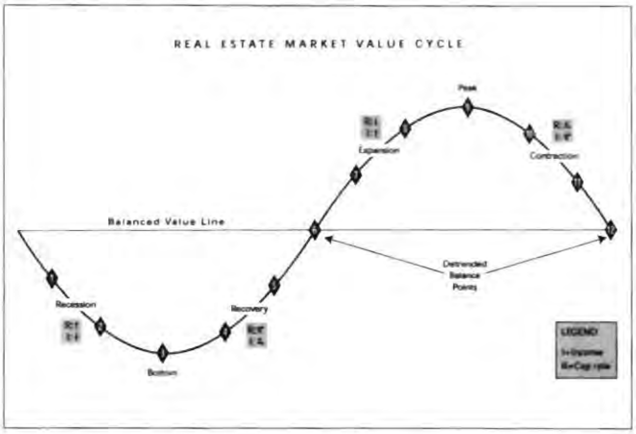
The notion that real estate markets are cyclical is not new. What is new and significant is the recognition by informed decision-makers of the importance of research on the cyclical nature of real estate markets with regard to real estate values.

The real estate value cycle methodology employed by the Global Strategic Real Estate Group of PricewaterhouseCoopers incorporates both the physical and capital market real estate cycles through a simple concept. The physical real estate cycle addresses real estate economics – the interaction between supply and demand, in other words, real estate that impacts vacancy rates and rental rates. The capital market real estate cycle addresses the redistribution of real estate assets from sellers to buyers – the creation of real estate value through new construction.

The combination of the physical and capital market real estate cycles occurs in the formula known to many in the real estate industry: $V = I/R$, wherein V equals value, I equals income, and R equals the cap rate. The physical real estate cycle directly impacts the income (I) or real estate assets. If vacancy rates increase and occupancy declines, rental rates decrease. The multiplication of occupancy and rent theoretically equals income. The capital market real estate cycle impacts cap rates (R), which respond to changes in vacancy rates and changes in income. Real estate cycles impact the bid-ask between sellers and buyers and new construction by developers and owners.

Computer modeling adds immeasurably to the efficient and accurate placement of each real estate market by property type and geography in the proper phase of the full cycle – recession, recovery, expansion, and contraction. Alternatively, the investor can analyze both the characteristics and trends in I (income) and R (cap rate) in any given property market to determine where the market is in the value cycle *(Exhibit 1)*.

Exhibit 1



Once the hard work of determining the cycle position of the markets under study is completed, the user can utilize the results as a management tool for timing strategies, asset management and valuation, portfolio risk assessment, and short- versus long-term lease decisions, among others. Every real estate investment needs a strategy for a profitable venture to include timing and an exit notion. Cycle modeling and analysis provides a tool for such a strategy.

Changes in the real estate markets are inevitable. Some will bring back memories of times past; some may be new wrinkles on old themes. Investors, eager to avoid a repeat of past mistakes, continue to seek out advance warnings of future risks to real estate investments. The good news is that more timely information on real estate markets is available in the 21st Century. And, real estate research provides the modeling capability in the form of real estate value cycle analysis that provides a powerful tool to anchor investment strategy. REI

ABOUT OUR FEATURED COLUMNIST

Peter F. Korpacz, MAI, *Bethesda, Maryland, is currently the director and global head of the strategic real estate research group of PricewaterhouseCoopers, LLP. With over 35 years of experience in real estate appraisal, counseling, and research fields, he is sought after as a qualified expert witness in various state and federal courts involving real estate disputes, and is nationally recognized as an appraiser and arbitrator in real estate tax assessment disputes. He was formerly the president of Peter F. Korpacz & Associates, Inc., wherein the* Korpacz Real Estate Investor Survey *was first published in 1988 and now marks its 12th year in publication under the PricewaterhouseCoopers' banner. Beginning in 2000, PricewaterhouseCoopers launched* Real Estate Value Cycles, *a semi-annual publication of real estate cycle information on the position of office, warehouse, retail, apartment, and hotel sectors in 58 major U.S. markets.*

FOCUS ON REITs

Public Real Estate Companies' Advantages will Overpower the REIT Bear Market

by Robin Panovka

The current REIT-related news centers on the day-to-day performance of REIT stocks, the excessive restrictions imposed by the REIT rules, methods for retaining and compensating REIT executives, and predictions for when the REIT bear market will end. Often forgotten, however, as the REIT industry licks its bear market wounds, are the *long-term* advantages of publicly traded, corporate real estate operating companies, or REOCs. For all of their shortcomings and maturational problems, publicly-traded REITs represent a new breed of investment vehicles that have noteworthy virtues and fundamental advantages over many of the older methods of investing in real estate.

Take, for example, the perspective of the individual investor who bought interests in syndicated limited partnerships in the 1980's and whose plight is once again making news. There can be little doubt that the public REIT or REOC offers individual investors more liquidity, better governance and accountability of management, and better reporting and transparency than the syndicated limited partnership structure.

And the same is often true from the perspective of institutional investors. Take the admittedly crude example of an institutional investor based somewhere in the Midwest who would like to allocate some funds to office buildings in the Southeast. The investor now has a choice between investing in the publicly-traded stock of any number of REITs which focus on the sector or utilizing one of the various private market alternatives that has historically been available. Investing in the public stock will often prove advantageous for a number of reasons:

- Instant access to information required to make the investment decision — SEC filings on the REIT that provide detailed information, including audited financials, can be pulled off the internet in seconds.
- Speed of execution and liquidity – depending on the size of the investment, the stock can be purchased and sold almost instantly with a few clicks of a mouse.
- Assurance of getting future reports on a regular basis – public companies are required to file with the SEC publicly available quarterly reports, including financials, and to disclose all material events.
- Tried-and-true public company corporate governance structure — while certainly not perfect, the governance structure that has evolved in corporate America is relatively well-defined, gives the shareholders a clear voice, and provides mechanisms for aligning the interests of management with those of the shareholders.
- Comfort that the various Wall Street watchdogs (analysts, rating agencies, investment banks and the financial press) will be keeping an eye on the REIT.

- Efficiency and lower transaction costs — when buying real estate through investment in publicly traded stock, there is no need to negotiate joint-venture agreements and other contracts; hire lawyers and ground-level consultants; perform costly ground-level due diligence; develop new business relationships; hire a staff; open offices; or incur frictional costs of entry and exit (transfer taxes, title insurance premiums, etc.), all potential aspects of direct investment in real estate. In addition, in the case of foreign investors, FIRPTA taxes typically can be avoided.

There will always be an active private real estate investment sector (as there is in non-real estate capital intensive industries that have long been public), and some investors will continue to shy away from investments in public REITs and REOCs because of the view that such investments do not provide the sought-after diversification from stock market investments historically provided by real estate investments (the jury will be out for some time as to this debate). But on balance, despite the recent setbacks, public REITs' and REOCs' roles as investment vehicles will continue to grow as their advantages to investors converge with the inescapable logic of providing the capital intensive real estate industry with access to the public capital markets. REI

ABOUT OUR FEATURED COLUMNIST

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FOCUS ON HOSPITALITY

Moderating Profit Growth Expected Until 2001

by Bjorn Hanson, CRE

After a slow second-quarter performance, growth of the U.S. economy accelerated in the second half of 1999. Real gross domestic product (GDP) grew at an annual rate of 4.1 percent in 1999, fueled by increased inventory buildup and export activity as well as continued robust consumer and business spending.

The pace of economic activity in the U.S. will continue to remain strong at least until 2001 as overseas economies gain momentum; Macroeconomic Advisers anticipates real GDP to slow slightly from 1999 to 3.4 percent in 2000 and 2.8 percent in 2001.

The anticipated solid performance of the U.S. economy in the next two years will stimulate lodging demand growth as well as encourage continued development initiatives. Room rate advances will continue, but there will be a tighter spread between average room rate growth and inflation in the next two years. Although profit margins are not expected to improve significantly going forward, aggregate industry profits will continue to rise at a compound annual growth rate of 8.3 percent.

MODERATING RevPAR GROWTH

After peaking at 6.1 percent in 1996 in the current cycle, the growth of U.S. revenue per available room (RevPAR) has been trending down as the high level of hotel construction has adversely affected occupancies and room rate growth in most lodging markets. Beginning in 1996, U.S. demand growth failed to keep pace with the supply expansion. The net increase in supply from 1996 to 1998 was almost 292,000 rooms, representing a compound annual growth of 4.1 percent. By comparison, the industry's historical supply growth average from 1975 to 1998 is 2.8 percent.

Occupancy dropped 1.2 occupancy points to 63.9 percent in 1998 from 65.1 percent in 1996. Room rate increases also slowed to 4.4 percent in 1998 from 6.5 percent in 1996. The combination of lower occupancy and modest average daily rate (ADR) gains caused RevPAR growth to slide from 6.1 percent in 1996 to 3.6 percent in 1998.

1999 PERFORMANCE

Statistics from Smith Travel Research (STR) show a continuation of these trends in 1999. The stronger supply gro wth (+3.9 percent) relative to demand growth (+3.5 percent) pushed down occupancy rates, thus limiting the industry's ability to raise room rates and RevPAR. The occupancy in 1999 fell 0.5 occupancy point to 63.4 percent, while ADR increased only 3.9 percent to $81.07 in the same period one year earlier. As a result, RevPAR advanced by only 3.2 percent. In inflation-adjusted terms, RevPAR increased 1.0 percent. *(Tables 1 and 2 summarize the 1999 performance indicators.)*

Tables 1 & 2

1999 U.S. Lodging Industry Statistics
Segments & Regions
Ranked by RevPAR Growth

Percentage Change from Prior Year (except for occupancy change)

	RevPAR Growth	Occupancy Point Difference	ADR Growth	Supply Growth	Demand Growth
Segment					
Budget	5.2%	-0.1	5.4%	0.4%	0.2%
Economy	4.5%	-0.3	5.0%	3.3%	2.7%
Luxury	3.2%	-0.6	4.0%	4.5%	3.6%
Midprice	3.1%	-0.7	4.2%	5.8%	4.5%
Upscale	1.2%	-0.8	2.4%	4.8%	3.6%
Census					
New England	8.4%	1.0	6.9%	3.1%	4.7%
Mountain	4.3%	-1.0	5.8%	5.4%	3.9%
Pacific	3.9%	0.4	3.3%	2.6%	3.1%
Middle Atlantic	3.9%	-0.5	4.6%	2.9%	2.2%
South Atlantic	3.1%	-0.5	3.9%	4.6%	3.8%
East North Central	2.6%	-0.7	3.7%	4.4%	3.3%
West North Central	2.4%	-0.2	2.7%	3.5%	3.2%
West South Central	0.3%	-1.4	2.6%	5.4%	3.1%
East South Central	-0.3%	-1.7	2.6%	4.9%	2.0%
Location					
Resort	4.0%	-1.1	5.6%	3.0%	1.4%
Highway	3.3%	-0.5	4.1%	2.9%	1.9%
Urban	2.4%	-0.7	3.4%	5.1%	4.1%
Airport	2.0%	-0.6	2.9%	4.0%	2.9%
Suburban	1.6%	-0.7	2.7%	5.4%	4.2%

Source: Smith Travel Research, *Lodging Outlook, February 2000.*

Top 25 Markets' 1999 Performance - Markets Ranked by RevPAR Growth

Percentage Change from Prior Year (except for occupancy change)

	RevPAR Growth	Occupancy Point Difference	ADR Growth	Supply Growth	Demand Growth
Detroit, MI	7.8%	1.2%	6.0%	4.6%	6.6%
Miami-Hialeah, FL	6.9%	0.6%	7.8%	6.0%	5.1%
New Orleans, LA	6.4%	0.4%	5.8%	3.2%	3.8%
Washington, DC-MD-VA	6.1%	1.0%	4.7%	3.8%	5.4%
San Diego, CA	5.9%	-0.4%	6.4%	1.7%	1.2%
Los Angeles-Long Beach, CA	5.8%	0.9%	4.5%	1.2%	2.6%
Boston, MA	5.4%	-0.2%	5.7%	7.1%	6.7%
Tampa-St. Petersburg FL	5.4%	0.3%	4.9%	3.6%	4.0%
New York, NY	5.0%	-0.2%	5.2%	3.1%	2.8%
San Francisco-San Mateo	4.7%	-0.9%	5.8%	3.0%	1.7%
Atlanta, GA	3.5%	0.3%	3.0%	5.5%	6.1%
Chicago, IL	3.0%	-0.6%	3.9%	4.4%	3.4%
Anaheim-Santa Ana, CA	2.9%	0.9%	1.5%	1.6%	3.1%
Norfolk-Virginia Beach	1.9%	-1.3%	4.1%	2.1%	0.1%
St. Louis, MO-IL	1.6%	0.7%	0.5%	4.6%	5.8%
Minneapolis-St. Paul, MN	0.1%	-0.8%	1.3%	4.3%	3.1%
Philadelphia, PA-NJ	0.0%	-0.9%	1.3%	9.6%	8.2%
Orlando, FL	-0.8%	-2.9%	3.1%	6.0%	1.8%
Seattle, WA	-1.3%	-3.4%	3.4%	8.4%	3.3%
Nashville, TN	-1.3%	-0.9%	0.1%	4.5%	2.8%
Oahu Island	-3.2%	-0.4%	-2.6%	-0.1%	-0.7%
Denver, CO	-4.4%	-3.0%	0.0%	12.0%	7.1%
Dallas, TX	-4.7%	-3.3%	0.3%	12.3%	6.7%
Phoenix, AZ	-4.7%	-2.2%	-1.3%	9.7%	5.9%
Houston, TX	-4.9%	-3.3%	0.3%	7.5%	1.9%

Source: Smith Travel Research, *Lodging Outlook, February 2000.*

The performance in 1999 was mixed within price segments. Both budget and economy segments achieved the highest inflation-adjusted RevPAR growth (+3.0 percent and +2.3 percent, respectively), benefiting from healthy ADR gains. On the other hand, luxury, upscale, and midprice properties sustained below-average inflation-adjusted RevPAR increases. Though room demand was exceptionally strong in these segments, room supply expanded even faster. These led to large occupancy declines, which in turn inhibited room rate increases among these properties.

By region, strong ADR growth allowed New England, Mountain, Pacific, and Middle Atlantic regions to outperform the overall industry in terms of real RevPAR growth (+6.2 percent, +2.1 percent, +1.7 percent, and +1.7 percent, respectively) in 1999. In contrast, hotels in the East South Central and West South Central reported declining real RevPAR growth as both regions suffered weak occupancies and ADR performance.

In terms of location, resort properties registered the highest real RevPAR growth (+1.8 percent) due to above-average ADR gains. Meanwhile, hotels in airport, suburban, and urban areas reported stagnant or declining real RevPAR. Hotel occupancy suffered material declines in these markets, resulting in ADR growth only slightly above inflation.

Among the top 25 metropolitan statistical areas, Detroit, Miami-Hialeah, New Orleans, Washington D.C., San Diego, Los Angeles-Long Beach, Boston, Tampa-St. Petersburg, New York, and San Francisco/San Mateo reported RevPAR growth significantly above the industry average in 1999. Robust lodging demand expansion allowed ADR in these markets to grow at least twice as fast as the rate of inflation despite significant drops in occupancy in many cases. In contrast, weak demand continued to drive down occupancy and room rates in Oahu Island. Meanwhile, Denver, Dallas, Phoenix, and Houston generated the most dramatic drops in real RevPAR growth among the metro markets due to rapid supply growth.

LODGING INDUSTRY OUTLOOK, 2000 TO 2001

PricewaterhouseCoopers expects room demand to increase 3.0 percent in 2000; and 2.7 percent in 2001. *(Table 3 presents the U.S. lodging industry forecasts.)*

As new development projects are expected to slow, PricewaterhouseCoopers expects a gradual decline in room starts through year 2001. From 151,866 rooms in 1998, annual room starts will decline at a compound annual rate of 6.4 percent through 2001, but will still remain at high levels (exceeding 100,000 rooms). By 2001, demand growth will catch up as room supply growth slows to 2.8 percent. As a result, occupancies will decline by 0.4 occupancy point to 62.7 percent in 2000 from 63.4 percent in 1999, and stabilize in 2001.

Table 3

PricewaterhouseCoopers U.S. Lodging Forecasts, 2000 - 2002

	1998	1999	2000	2001	2002
Occupancy (%)	63.9	63.4	63.0	62.7	62.7
Average Daily Rooms Sold	2,357	2,440	2,515	2,582	2,652
Change from Prior Year (%)	3.2	3.5	3.0	2.7	2.7
End-of-Year Room Supply					
Change from Prior Year (%)	4.2	3.9	3.5	2.8	2.6
Average Daily Rate ($)	78.01	81.07	83.99	87.10	90.40
Change from Prior Year (%)	4.4	3.9	3.6	3.7	3.8
Revenue per Available Room					
Change from Prior Year (%)	3.6	3.2	3.1	3.3	3.8

Source: Forecasts are from *PricewaterhouseCoopers Hospitality Directions*, December 1999/January 2000. Historical data are from Smith Travel Research.

Cumulative supply pressures will result in moderating real ADR growth. Nominal ADR will grow less than four percent in the next two years while annual inflation is expected to rise at least by 2.5 percent. In inflation-adjusted terms, PricewaterhouseCoopers expects ADR to increase 0.9 percent in 2000 and 0.8 percent in 2001.

Moderating ADR growth and declining occupancies in 2000 will lead to decreasing RevPAR trends. RevPAR is expected to grow 3.1 percent in 2000. RevPAR growth will improve slightly to 3.3 percent in 2001 as occupancy rate ceases its downward trend.

Despite the declining trend in RevPAR growth, industry profits will continue to climb, but at a decelerating pace. Hotels will increasingly rely on non-room activities to boost revenues and cut expenses to improve profit margins. PricewaterhouseCoopers expects aggregate profits to increase to $24.4 billion in 2000 and $26.5 billion in 2001. REI

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Bjorn Hanson, Ph.D., CRE, *New York City, is the global hospitality industry leader for PricewaterhouseCoopers. He is a recognized authority with his years of consulting, banking and research experience. He holds The Counselor of Real Estate (CRE); Certified Fraud Examiner (CFE); and Food Service Consultants International (FSCI) professional designations. Dr. Hanson is an author and frequent speaker who has been quoted in countless major business and industry publications. He is or has been an officer, board member, or faculty member of many industry, educational, and civic organizations including AH&MA, HS&MAI, Cornell University, and New York University. He has served as International President of the Cornell Society of Hotelmen and was the Cornell Hotelier of the Year in 1994.*

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