REAL ESTATE ISSUES

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Editor's Statement

Space, time and money are the three dimensions of real estate as set forth by Professor James Graaskamp in various prolegomena and incidental papers. They also structure this number of *Real Estate Issues*.

Our opening article picks up a theme that is beginning to be talked about with real interest among senior corporate managers. Traditionally those managers don't think much about real estate except as a physical support for their primary activities as manufacturers, distributors, or purveyors of services. Very seldom have they paid any serious attention to the corporation's real estate asset portfolio as a storehouse of value and source of profits.

As corporations begin to wake up to the potential of their real estate holdings, they will be calling more and more upon professional real estate counselors for guidance in converting or reorganizing those assets for greater profitability. David Haddow shows how the corporations that have conducted or are deciding to conduct the asset audit recommended by Security Pacific Realty Advisory Services can choose and use competent real estate advisors. In a not entirely tongue-in-cheek pair of contributions, an anonymous real estate expert offers seven ways for the clients to minimize the value received for the counseling fees they pay and seven ways for counselors to minimize the value of their services. These prescriptions can of course be turned inside out by clients and counselors less interested in nil results.

Time, money and space are also at the heart of Jeff Madura's piece on portfolio design and of the approach to investment real estate valuation offered by Antia, Kapplin and Meyer. They also underlie the discussion of space segmentation and market segmentation by Grissom and Kuhle and Maury Seldin's discussion of market timing. Roger Caves discusses the problems associated with time sharing and Mary Alice Hines addresses the experience of international property investors, offering a way to measure their yields.

We close with a space-time/money-time calculation increasingly familiar to planners and builders of office and shopping centers: the relationship between parking layout and project economics, as discussed by three Barton-Aschman Associates experts. We hope that their advice—and that of the other authors represented in this issue—will be taken seriously by our readers and their clients. Much time will be saved, money made and space freed up for more productive uses if that happens.

Editor-in-chief

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Corporate Real Estate Assets And Leaseholds: A Senior Management Audit

As a service to other corporate executives and as a way of demonstrating its particular philosophy and expertise in the real estate asset management area, Security Pacific Realty Advisory Services is making this material available to enable you to assess your company's present approach to its real estate assets.

In addition, it highlights potentially new approaches—successfully being employed by others—which can be employed to improve the efficiency and effectiveness of the real estate component of a corporate asset management program.

Organization And Structure

From a historical perspective, the real estate assets of a corporation have been viewed as assets only insofar as the balance sheet was concerned. The primary function of the real estate group was a maintenance one. Real estate managers played a minimal or passive role, simply fulfilling the requests of the operating groups.

Today real estate assets are more and more seen as a source of cash and/or earnings. The effective and efficient management of these assets is considered an integral and important part of an overall asset management program.

The following questions and your answers will indicate rather dramatically how your corporation views its real estate assets and the role of your real estate asset managers.

1. Is the company's investment in real estate within the charter of responsibility of the chief financial officer?

   Yes____ ____No

2. If not, is the person responsible for the company's real estate assets an officer of the corporation?

   Yes____ ____No

   Position _____

3. Does your company have a separate real estate department reporting to this officer?

   Yes____ ____No

4. Are the duties, responsibilities and performance criteria of the real estate department staff defined?

   Yes____ ____No

5. Are the individuals who are responsible for real estate:

   a. Specially trained to evaluate effectively the marketing, financing and development techniques for acquiring and disposing of real estate assets and leaseholds?

      Yes____ ____No

   b. Knowledgeable of current real estate market conditions?

      Yes____ ____No

   c. Aware of the general mark-ups and mark-downs in real estate?

      Yes____ ____No

   d. Aware of the limitations of real estate appraisals?

      Yes____ ____No

Founded in 1963 as Howard P. Hoffman Associates, ***Security Pacific's Realty Advisory Services*** *has helped more than 350 major corporations and financial institutions throughout the U.S. solve problems—or seize opportunities—associated with their investments in land and building assets or leaseholds. The organization strives to produce maximum dollar returns for its clients through the adaptive reuse of its unused or underutilized land and building assets.*

6. How and when is the real estate function integrated into the strategic and tactical plans of your company?

_____

_____

_____

_____

7. Is there continuing, monitored communication and coordination between the financial, marketing, operating, and real estate departments?

Yes____ ____No

8. Are real estate personnel evaluated on the basis of their contribution to profit performance, that is, accountable to management on the same basis as personnel managing other company assets? If not, then on what basis are they evaluated?

Yes____ ____No

_____

_____

_____

_____

9. If your company has an asset management component to any of its incentive compensation plans, is real estate included in the formula? If so, what is the criteria for inclusion in the formula?

Yes____ ____No

_____

_____

_____

_____

Operating Procedures

The view that "real estate is different" and that all "real estate transactions are unique" are probably the primary reasons that senior management has relegated the responsibility for managing the corporation's real estate assets to others.

While there are certain differences, real estate assets can be viewed and managed generally in the same way as other assets—through the establishment and implementation of formalized corporate policies and procedures.

The following questions and your answers will indicate the level of senior management control currently being exercised within your organization.

1. Are acquisitions and disposals of real estate property properly authorized in that formal written requests and authorizations are required?

Yes____ ____No

2. Has someone been specifically designated to approve all real estate acquisitions and disposals? If yes, who?

Yes____ ____No

Who_____

3. Are real estate acquisitions/improvements/modifications covered by the company's capital expenditure policies and procedures?

Yes____ ____No

4. Do established policies and procedures exist to cover real estate broker selections, competitive bidding and possible conflicts of interest? If these policies do not exist, what mechanism is in place to assure the best results for the company?

Yes____ ____No

_____

_____

_____

_____

5. Are there standard procedures in place to ensure that real estate transactions have been analyzed professionally before an agreement is signed from a financial, marketing and legal point of view?

Yes____ ____No

6. Have predetermined dollar limits been established for approvals by designated responsible officers?

Yes____ ____No

7. Are all available real estate facilities examined for reuse, expansion or consolidation before new facilities are purchased or leased? How often?

Yes____ ____No

How often?_____

8. Are all operating divisions and subsidiaries made aware of surplus and/or underutilized facilities before those assets are sold or subleased?

Yes____ ____No

Safeguarding Real Estate Assets

Can someone steal your vacant, unused or underutilized land assets? Yes, someone can! Not only can these assets be lost, they can be severely reduced in value through actions by others, such as rezoning and condemnation.

In addition, unauthorized use of seemingly fully utilized corporate owned facilities is far more commonplace than generally is believed.

The following questions and your answers will indicate the current level of your corporate real estate asset protection programs.

1. Is a physical inspection of real estate, leased and owned, conducted on a periodic basis?

Yes____ ____No

If yes, by whom?

Name/title _____

How often? _____

Time period _____

2. Are the results of these inspections compared to the records maintained by real estate personnel?

Yes____ ____No

3. Do you have deeds, updated surveys and title reports for all properties owned by the company?

Yes____ ____No

4. What safeguards exist to assure that all company real estate is being used as authorized?

_____

_____

_____

_____

5. Are the real estate inventory reports which are maintained by the real estate department compared to the financial records of the company on a periodic basis to ensure that all information is included?

Yes____ ____No

If yes, by whom?

Name/title _____

How often? _____

Time period _____

6. How are differences investigated and properly resolved?

_____

_____

_____

_____

7. Are all improvements, modifications and alterations to real estate being reported on a timely basis and are records being updated?

Yes____ ____No

8. Do the real estate and accounting departments have an opportunity to provide input prior to any improvements, in order to insure that real estate values are being protected and tax benefits and/or earnings are being maximized?

Yes____ ____No

9. Are significant changes in real estate values (either effectuated or uncovered) from any of the preceding activities highlighted in some reporting manner to management?

Yes____ ____No

If so, to whom?

Name/title _____

For what purpose?

_____

Operating Assets/Leaseholds—Financial Considerations

When looking at their real estate assets as a source of cash and/or earnings, most corporations tend to look first at surplus, unused or underutilized properties.

Operating properties are rarely reviewed and yet they may offer the greatest opportunities. These are opportunities which may be seized while not necessarily disrupting current operations nor diminishing their utilization.

Your review of and answers to the following questions may uncover such possibilities within your corporation.

1. Are older real estate assets—those most affected by higher depreciation charges under price change accounting—regularly reviewed for replacement potential?

Yes____ ____No

2. Are real estate assets owned by the company evaluated for potential mortgage or lease financing on a regular basis in conjunction with the organization's overall financing plans?

Yes____ ____No

3. Are collateralized real estate assets evaluated for significant value increases to obtain possible release of collateral?

Yes____ ____No

4. Have you been able to take advantage of your company's current low-cost leases by subletting at a profit or by selling your leasehold interest?

Yes____ ____No

5. Has your company evaluated consolidating operations or moving operations to accomplish the above?

Yes____ ____No

6. Are residual values in financing leases evaluated periodically to take advantage of changing market conditions?

Yes____ ____No

7. Has your company ever given up its interest in the residual value of a financing lease to capture cash and convert the lease to an operating lease?

Yes____ ____No

Surplus Assets/Leaseholds—
Value Enhancement Considerations

Since surplus properties are generally considered to have little, if any, value to the corporation, it is generally assumed that they will have little, if any, value to anyone else. Nothing could be further from the truth.

Seemingly worthless properties have and are being sold to real estate speculators for practically nothing, only to be sold again—in very short periods of time—for millions of dollars.

Sometimes it is just luck; other times the corporation was victimized. The following questions and your answers may reveal your vulnerability.

1. Does your company apply the same value enhancement marketing principles to the selling of real estate assets as it does to the selling of its products?

   Yes_____ _____No

2. How would you best describe the current marketing policies regarding the sale or (sub)leasing of real estate?

   _____Sell as quickly as possible to first offer

   _____Establish current value through appraisal—offer through brokers

   _____Sell "as is"

   _____Determine highest/best use and develop value enhancement marketing program—sell to users.

3. Do you monitor the subsequent use of significant real estate sales of the company?

   Yes_____ _____No

   If yes, who does it?

   Name/title _____

   What is the distribution of the results?

   Executive Committee_____

   Finance Committee _____

   Audit Committee _____

4. Are you satisfied that your company receives optimum sales prices? If not, why not?

   Yes_____ _____No

   _____

   _____

   _____

   _____

5. What is being done to assure optimal future returns from the disposal of surplus or underutilized real estate?

   _____

   _____

   _____

   _____

6. Are development plans available for all surplus land parcels to help insure that the land will not lose its future value because of downzoning, rezoning, condemnation or other such events?

   Yes_____ _____No

Facility Acquisition—Savings/Opportunities

In addition to the usual questions that need to be answered by operating departments, several questions relative to the acquisition of a new facility must be addressed by senior management.

If approached from the proper perspective, the question of acquiring a new facility may include the consideration of not only "How do we get the best facility at the lowest possible cost?" but also, "Can we acquire a 'new' facility at little or no cost?"

1. Does your company consider the savings that can be realized from the adaptive reuse of available existing facilities before acquiring a site for the construction of a new facility?

   Yes_____ _____No

2. When acquiring a new facility site, does the company consider the effect of the acquisition on the surrounding real estate market, in order to take advantage of possible opportunities? If so, how?

   Yes_____ _____No

   _____

   _____

   _____

3. When designing a new facility, does the company take into account the local real estate market in order to ensure the facility's future marketability, in case it eventually becomes surplus?

   Yes_____ _____No

4. When planning a new office or warehouse facility, does your company consider building more space than present needs dictate in order to capture lease income from other users while controlling the space for future expansion?

   Yes_____ _____No

Administration Of Real Estate Data And Information

The first step in any effective asset management program is to establish the "tools" used by your managers.

It is virtually impossible to try to imagine a "cash" or "credit" manager effectively functioning without reliable data and meaningful information.

The first question that senior management must ask when reviewing an analysis of its real estate assets is: How current and reliable are the data upon which this analysis was based?

The following questions can provide you with the basis for evaluating your corporation's current programs.

1. Does your company have a system of maintaining information relating to leased and owned real estate properties?

   Yes____ ____No

2. Is such real estate information current?

   Yes____ ____No

3. Is this information analyzed for senior management review?

   Yes____ ____No

   If yes, how often?

   Quarterly____ ____Semiannually

   Annually____ ____As requested

4. Is real estate information maintained on an automated data base?

   Yes____ ____No

5. Is the real estate data base available to all appropriate managers in the company?

   Yes____ ____No

6. Are reports which delineate the utilization and current capacities of owned or leased properties periodically prepared?

   Yes____ ____No

   If yes, how often?

   Quarterly____ ____Semiannually

   Annually____

   Who receives them?

   Name/title _____

   For what purpose?

   _____

7. Are lease commitment reports generated in order to provide management with sufficient notice of impending lease terminations so that appropriate action can be taken?

   Yes____ ____No

8. If regular reports are prepared in addition to those mentioned previously, list them by name, category and purpose.

   _____

   _____

   _____

   _____

Real Estate Asset Management Strategic Considerations And Performance Evaluation

With a current and reliable source of data and information, you are now in a position to ask the strategic questions that will allow you to evaluate your current performance level.

In addition, you will be able to identify problems and opportunities as well as formulate real estate asset management policies and procedures that will complement your overall corporate strategic plan.

1. Is there a continuing program in effect to identify and review for surplus or underutilized properties, for example, land adjacent to operating facilities?

   Yes____ ____No

2. Is your cost-per-square-foot of real estate property in line with current market conditions for each location?

   Yes____ ____No

   How is it determined?

   Method _____

   How often?

   Annually____ ____Biannually

   5 years____ ____Other

   By whom?

   Name/title _____

3. In valuing properties, are methods other than appraisals utilized, such as net realizable value or use/worth concept? If yes, what methods?

   Yes____ ____No

   _____

   _____

   _____

4. Are you aware of whether your company-owned real estate has significantly increased or decreased in value due to the change or anticipated changes in property surroundings?

   Yes____ ____No

   If yes, has the company adequately taken advantage of these changes? If so, how?

   Yes____ ____No

   _____

   _____

   _____

   _____

5. Are you satisfied that current procedures exist to ensure that the values of company-owned or leased properties are reviewed for such changes?

   Yes____ ____No

6. Are easements and right-of-ways properly evaluated prior to approval? Has the possible impact of changes in property utilization, its surroundings or its future value been considered?

   Yes____ ____No

7. In developing "takeover defense strategies," are increased real estate values incorporated into your planning?

   Yes____ ____No

8. Are you satisfied that the optimum level of cash flow and/or earnings is being generated from the company's real estate holdings?

   Yes____ ____No

9. Are you satisfied with the return your company is currently receiving from its real estate asset base?

   Yes____ ____No

10. Are you satisfied that the required amount of time and effort is being spent on the company's real estate assets and leaseholds?

    Yes____ ____No

11. Have you evaluated the total impact of current value accounting on your real estate asset base and its relation to overall corporate return-on-asset (ROA) targets?

    Yes____ ____No

12. Although restatement of land assets to "current value" is not a requirement of FASB-33, has your company done such an analysis?

    Yes____ ____No

    If so, have these results been incorporated into your evaluation discussed in question 11?

    Yes____ ____No

13. Has the impact of FASB-33 fostered any changes in your company's strategic plans?

    Yes____ ____No

    If so, how?

    _____

    _____

    _____

    _____

14. Has an analysis been made of how policies relating to the acquisition and disposition of real estate assets and leaseholds can support such changes in your company's strategic plans?

    Yes____ ____No

CHOOSING AND USING REAL ESTATE CONSULTANTS

by David F. Haddow

Real estate consultants provide a service for a fee. The value of their contribution has a measured cost. When cost exceeds value, however, buyers of these services become dissatisfied and question their decision to buy. If a consultant's report is voluminous but vague and merely sets the stage instead of providing answers, the client may feel cheated and wonder why he/she sought outside counsel in the first place.

This article shows one how to get the most from real estate consultants. Topics covered range from when to call a consultant to how to use and interpret the findings. A fundamental question raised at the outset is: How do consultants benefit their clients? Also addressed is the question: Why are clients often denied the full value of consulting services? A practical guide on managing the client/consultant relationship is offered.

Valuing Consultant Services

The three benefits to be gained by hiring real estate consultants are a fresh perspective, objectivity, and professional expertise. In evaluating real estate, developers and lenders often contract acute tunnel vision. Once they set their sights on a location, building design, product choice, or any other critical aspect of a real estate project, they tend to block out contradicting evidence. The consultant's fresh perspective is invaluable because he/she is not yet "deal weary" and probably can offer insights which may be obvious to an outsider but well hidden at close range.

Objectivity is a virtue related to a fresh perspective. The consultant owes no favors and comes with no strings attached. It is the consultant's job to determine not only why a project will work but if it is feasible in the first place. Who else can a developer turn to for objective advice? Surely not the real estate broker who hopes to handle the leasing, nor the mortgage broker whose loan origination fee hangs in the balance.

Professional expertise is often needed to aid the decision-making process. Qualified consultants have research and analytical skills that enable them to extract relevant market information and evaluate it in a meaningful way. Where others are left pondering the various outcomes, they are expected to explain cause/effect relationships.

When To Call A Consultant

Consultants are often used merely as sounding boards after the real decision-making has been completed. They are called in to build a developer's case to a lender or a loan underwriter's presentation to an investment committee. In other words, consultants are often summoned after the fact and usually are called only because an independent opinion is required to satisfy potential investors.

Not surprisingly, a consultant in this position is cajoled and encouraged to accept the development plan as proposed and to "bless" the cash flow projections. Although the professional standards of the consultant require independent inquiry and evaluation, his/her position is rather compromised from the start, making it difficult to be objective in judging the merits of the project.

To most clients, consultants are a necessary evil. One reason for this attitude is that clients often fail to secure consulting services at a point where more than a rubber stamp is needed. The critical stages of project planning and conception are rightly the domain of the entrepreneur. In many cases, however, outside input is beneficial in resolving product and market decisions, particularly in the early stages.

Consulting services are not always needed. There are many situations in which the market provides clear signals as to what to build and when to build. For example,

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an owner of a vacant tract in an industrial area would have little need for outside counsel if approached by a company seeking a "build-to-suit" warehouse building, particularly if the company agreed to lease the building at a rate sufficient to provide an attractive return. The developer should know the costs and yield requirements.

One should call a consultant when market conditions or other factors raise the level of uncertainty to an unacceptable level. A good example is the proposed redevelopment of a garden apartment complex to a higher use. The property is purchased with the intention of building a high-rise office building or condominiums. The site location is good and well suited for either type of use, except that both the office and condominium markets suffer from excess supply. The apartment project is generating reasonable cash flow, but the land cost effectively prohibits prolonged operations.

In this case, there are no simple answers. At the very least, however, the property owner would benefit from a full accounting of market supply/demand conditions for offices and condominiums, and an independent assessment of the site location and price paid. This information should be available before the purchase transaction is closed, and preferably before the property is placed under contract.

Requirements Of A Good Consultant

There are essentially four qualities to look for in a consultant: 1) broad background and experience; 2) investigative and analytical capabilities; 3) communication skills; and 4) a strong level of interest. It is obvious that the profession is not universally endowed with equal measures of these qualities. Deficiencies in consulting services result when the person handling the assignment is lacking in one or more of these qualifications.

The consultant's chief role is to digest the "big picture," not only by taking inventory of market factors and economic trends, but by drawing meaningful conclusions from these data and making intelligent forecasts. It is not an easy job. A consultant must be part economist, historian, planner, and social scientist, and most importantly have a good understanding of real estate.

A consultant acts in much the same way as an investigative reporter, identifying data sources and interviewing knowledgeable persons who can help clarify and supplement the initial findings. The consultant's market coverage must be thorough because misinformed sources can present many obstacles along the way. It is not uncommon to get five different opinions on the same subject from five sources who are equally well regarded and present their views with similar conviction. Consultants must sift through the conflicting accounts and, based on insights gleaned from other sources, draw their own opinions.

As suggested earlier, this is one of the chief benefits derived from outside consultants. They are in a unique position to fully sample information sources and objectively evaluate the contents and relative merits of each source. To do the job properly, consultants must be willing and able to probe and analyze, and to go beyond the periphery by delving into the heart of the matter.

Communication is crucial to any business which sells information. If a wealth of insights is diminished when communicated, the information source has effectively lowered the value of its services. The inability to communicate both verbal and written ideas is a problem that all businesses must contend with. It is a death knell to consulting firms.

Concise report writing and effective presentations complete with a clear definition of the problem and a systematic treatment of the relevant issues should be the goal of every consultant. Many times consultants know more than they are able to convey in writing; consultants often surround the critical points in a report with so much fat, caused by poor organization and improper emphasis, that the client retains nothing of substance.

A more intangible quality which is necessary in the profile of the consultant is a strong level of interest. The nature of consulting work requires an inquisitive nature and a search/probe mentality. An economist who tracks trends in business activity but does not attempt to explain causal relationships is not a valuable economist. If consultants do not approach each assignment with an innate curiousity and a penchant for digging, they are liable to draw pat conclusions and mislead their clients.

Choosing A Consultant

The selection process is summarized by the following steps:

1) Contact several reputable consulting firms by telephone and fully describe your situation and needs.
2) Request that the firm submit a written proposal and fee quote which fully describe the scope of services.
3) After reviewing the proposals, conduct interviews with the person or persons from each firm who will be chiefly responsible for the assignment and request their credentials in writing.
4) Check references on recent assignments of a similar nature.

A few points deserve additional emphasis. First of all, a consultant's ability to address a client's particular problem in a proposal letter and to outline a method for arriving at a solution is a good preliminary indication of his/her ability to perform. Secondly, it is always important to interview, preferably in person, the individual who will handle the assignment because even a big-name firm may have a few little league players, one of whom may wind up on your team. This also affords a good opportunity to gauge the consultant's level of interest and establish personal rapport. Thirdly, it never hurts to review the consultant's credentials and to confer with one or two previous clients to assess his/her background and competence.

This selection process is ideal but is rarely followed. Most assignments are obtained through referrals from satisfied customers and business associates. The prospective client expects a consistent level of performance. This approach is inherently risky. Although most firms usually can deliver good results on a consistent basis, a firm in actuality is no better than the person assigned to the individual consulting job. Another pitfall to avoid is to base the hiring of a consultant on cost alone. While financial considerations are obviously important, they should never be the controlling factor when choosing a consultant. There is simply too much at stake.

Managing The Client/Consultant Relationship

Any inquiry begins with a definition of the problem. If a consultant fails to adequately identify and resolve the pertinent issues, he/she has not served the client well even though the work produced may be excellent. A client needs to clearly state the problem at the outset and ensure that his/her counsel is on common footing. For example, if an apartment developer were interested in knowing current demographic and employment trends in the market area and how these impact the apartment market, he/she would hardly benefit from a standard survey of market rental and occupancy rates. Therefore, it is in the best interests of the client to define the objectives of the assignment and the desired output. Occasional contact during the early stages of the assignment also helps ensure the proper focus.

When the assignment is completed, the client should review not only the conclusions but the logic employed in arriving at those conclusions. If a narrative report is not involved, a conference should be held to discuss the findings and underlying assumptions. It is obvious that a set of recommendations is only as good as the analysis that produced them. A sound guideline is to make the consultant convince the client of his/her findings. Sometimes even the views of consultants may change as they reason verbally instead of in writing.

It is most important for a client to use outside counsel as a resource. It is not uncommon for the client/consultant relationship to become combative, especially when the consultant does not share the client's views. One should not go outside of the organization to find another "yes" man. As suggested earlier, consultants have essentially three assets to offer: objectivity, professional expertise, and a fresh perspective. To compromise in any one of these areas cheapens the whole relationship. Therefore, the client should avoid guiding the consultant to his/her point of view. In addition, it is far more helpful to have a consultant explore unknown areas than to dwell on widely known factors.

Finally, a consultant's report is not inscribed on a tablet but represents the views of another mere mortal and should be weighed accordingly. Although the consultant should not be hired if he/she is not professionally competent, good credentials do not entitle carte blanche in rendering opinions. It sounds almost self-defeating to question the validity of purchased information. However, consulting services are not unlike consumer goods which may be defective; the main difference is that consulting services do not come with a money back guarantee. Therefore, a consultant's findings should carry the weight of that person's opinion. It is assumed that the work product is well reasoned, thorough, imaginative, and insightful; but it may not always hold the right answer.

Summary

The real estate consulting profession is still in its infancy. The increasing complexity of real estate transactions and financing, the expanded realm of participants, and the sheer size of projects and markets create a need for sophisticated and informed advice to developers, brokers, equity investors, syndicators and other players in the real estate game. Consultants can provide a valuable service.

The client must take certain measures to receive the full value of the services offered by real estate consultants. First of all, clients must recognize when outside counsel is needed and act early enough to reap its full benefits. Consultants should aid in making decisions instead of simply reviewing them.

Secondly, there are definite criteria for evaluating prospective consultants, which help guide the selection process. Choosing a consultant is often passed over lightly. This is a major cause of unsatisfactory results.

Finally, the client must take an active role in managing the client/consultant relationship. The client must clearly define the problem at the outset and require a full explanation of and justification for the recommended solution upon completion of the assignment. In this way, the buyers of these services can realize fully the promise of real estate consulting.

Editor's Note: Established in 1953 under the banner of the National Association of Realtors®, the American Society of Real Estate Counselors (ASREC) embraces almost 600 qualified experts throughout the United States, Canada and Puerto Rico. These members offer competent, independent real estate advice and guidance to the public on a fee basis.

Counselors advise their clients on the effect that current economics has on real estate enterprises and the ramifications of proposed programs and undertakings. Counseling services are valuable and often required in matters regarding estates, trusts, foundations, financial institutions and investments. All members hold the CRE (Counselor of Real Estate) designation and adhere to a strict Code of Ethics and Standards of Professional Practice.

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Seven Ways To Minimize The Value Of Your Services As A Real Estate Consultant

1. *Pump your client thoroughly.* Find out what your client wants to be told. Then deliver the desired answers properly rationalized and supported. This procedure insures a high level of client satisfaction and reduces the chances of delivering a valuable service.
2. *Take on only assignments for which you are not qualified.* This improves your chances of an interesting learning experience without increasing the risk of useful results.
3. *Avoid forcing the client to think through his situation prematurely.* This is often done inadvertently by inexperienced consultants. Stay general so that the client won't be able to quibble about your choice of things to be done in connection with the assignment. Precision is difficult in the best of circumstances, and often painful.
4. *Don't set fees beforehand.* This only shocks the client and creates unnecessary ill will at the outset. Your bill when it comes will be a nice surprise to the client, creating opportunities for downward adjustment that are almost certain to make you feel virtuous and self-sacrificing.
5. *Promise impossibly early completion dates.* Clients like to be told things will be done quickly and don't particularly mind when you miss deadlines if you are nice about providing reasonable excuses. Impossibly short deadlines also prevent you from preparing a realistic job schedule, doing the work in an orderly fashion, perhaps even delivering a useful report.
6. *Make sure that the thought processes expressed in your report are neither continuous nor particularly intelligible.* An unbroken logic chain will only intimidate the client or provoke a skeptical reaction. Reality is disorganized and confusing; why try to paper it over? Remember, it pays to bumble.
7. *Keep a tight shirt at all times and wear your vest buttoned.* Nobody likes to see a relaxed consultant. Careful attention to the details of intimidation will pay you back many times for the small efforts required. Let there be awe in the consulting room and there will be jingle in the britches without endangering the First Rule of worthless consultants, which is "Nothing for quite a lot."

Seven Ways To Get Less For Your Money In Real Estate Consulting

1. *Tell your consultant the answer you want before you grant the assignment.* Strong hints are good, too. This will minimize the work done by the consultant and can often assure a valueless result.
2. *Pick a consultant who knows less about the subject matter than you do.* Ease your mind by satisfying yourself beforehand that the consultant doesn't know enough to challenge your preconceptions—or your ignorance.
3. *Don't bother to define the problem.* We all know that a defined problem is no problem at all. Be vague. The consultant will do a lot of work but there is little risk that much of it will help you.
4. *Underpay.* There is no substitute for inadequate compensation as a guarantee of poor performance. Set fees low and pay them late. You'll be richly rewarded—with nothing.
5. *Demand instant service.* This works particularly well with overburdened consultants and may even lead to complete breakdown. Be sure to maintain a high urgency ratio at all times. The urgency ratio,

$$\frac{\text{Client's Urgency}}{\text{Adequacy and Speed of Payment for Consulting Services}}$$

is the key to poor consultant performance. High ratios practically assure a poor result. Also of interest is the formula,

$$VCS = f\left(\frac{UR}{P}\right)$$

where VCS stands for value of consulting service, UR stands for urgency ratio, and P stands for the consultant's desire to swim, sail, play golf and eat long lunches.

6. *Tolerate no mistakes.* A consultant who knows that only 100 percent passes will be careful to avoid positive statements, thereby relieving himself of any responsibility for correct answers to your actual problems.
7. *Don't hire a consultant who doesn't leave you feeling intimidated and inadequate.* Only the pompous can be relied upon to fog the issues, finesse the work and confuse the client adequately. Fortunately, they only cost a little more.

Editor's Note: *The preceding lists were pushed through the transom by a Counselor seeking anonymity. While we ordinarily require that our authors identify themselves, we have decided to make an exception in this case.*

HOW TO CONSTRUCT REAL ESTATE PORTFOLIOS

by Jeff Madura

The concept of diversification has been a focal point of financial literature for more than two decades. Only recently, however, have researchers applied diversification to assets other than equities.

Aubey and Cramer (1977) attempted to compose a currency cocktail bond which would exhibit low variability in financing costs to the bond issuer. Johnson and Zuber (1979) developed multicurrency units of account which could reduce exchange rate risk. Levy (1981) applied the mean-variance model to international cash management decisions. Finally, Brewer (1982) and a host of other researchers have extended stock diversification from a national to an international perspective.

The diversification properties of portfolio building can be applied to real estate methods for constructing real estate portfolios. This study attempts to develop a method for constructing these portfolios.

Mean-Variance Model

A real estate investor with information about the expected yield, variability, and pairwise comovements of real estate ventures could use the mean-variance model developed by Markowitz (1952) to determine an efficient frontier of real estate portfolios. Each portfolio is efficient in the sense that it exhibits the lowest anticipated risk for a given expected return.

Mathematically, the mean-variance model minimizes portfolio variance (σ_p^2) for a given return subject to weight constraints:

$$\text{MIN } \sigma_p^2 = \sum_{i=1}^{k} w_i^2 \sigma_i^2 + \sum_{i=1}^{k} \sum_{\substack{j=1 \\ (i \neq j)}}^{k} w_i w_j \sigma_{ij} \qquad (1)$$

where w represents the weight allocated to an asset, i and j refer to individual assets, k is the total number of assets, and σ_{ij} is the covariance between the ith and jth assets. The maximization process satisfies the condition that the weights are non-negative and sum to 100 percent.

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Equation (1) illustrates how the variability of portfolios can be reduced by selecting assets which exhibit low variability and low covariances with other component assets. A portfolio containing k assets has a variance determined by summing k variance and $k(k-1)/2$ covariances. This emphasizes the substantial influence of comovements on a portfolio's variability in returns. To construct a real estate portfolio with a low level of risk, the portfolio builder must assess which ventures have low or negative correlations with other ventures already undertaken. For this purpose, three risk-reducing strategies are given.

Reducing Risks In Portfolio Building

One method of reducing portfolio risk is to combine ventures within a given location, which have unrelated operations. In this manner, the impact of the economy on one venture will not automatically affect all other ventures in the same way. This can be referred to as business diversification. However, if the area of concern is supported by only a few major industries, the ability to sufficiently diversify within that one area is limited.

A second approach to real estate portfolio building is to diversify nationally. This approach is expected to utilize ventures which are less correlated with each other since they aren't all being influenced by the conditions of one local area. However, reducing risk may still be limited by the systematic impact of the national economy on all real estate ventures.

A third approach for a real estate portfolio builder is international diversification. The extent to which international ventures would be similarly influenced depends upon the degree of international integration. Yet, even if the ventures do have some positive level of covariability, it is probably less than the correlations of ventures contained in local or national portfolios.

Summary

To operationalize the mean-variance model for real estate portfolio construction, the expected returns, variances and pairwise covariances of real estate ventures must be assessed. Three diversification methods have been reviewed. The international real estate portfolio is hypothesized to contain less correlated ventures and therefore less portfolio return variability than the local or national portfolios. This hypothesis deserves empirical examination in future research.

Of course, even if international diversification of real estate ventures is shown to be more effective in reducing risk, information barriers might limit a portfolio builder's desire to operationalize the idea. If information centers are established, however, these start-up costs might be easily covered through economies of scale by providing portfolio consulting services for other real estate investors.

BIBLIOGRAPHY

1. Aubey, Robert T., and Robert H. Cramer. "The Use of International Currency Cocktails in the Reduction of Exchange Rate Risk." *Journal of Economics and Business* 29 (Winter 1977), 128-135.

2. Bicksler, James L. Discussion of Lessard's paper "World, National, and Industry Factors in Equity Returns." *Journal of Finance* 29 (May 1974), 395-398.

———. "Gains from Portfolio Diversification into Less Developed Countries' Securities: A Comment." *Journal of International Business Studies* 9 (Spring/Summer 1978), 113-115.

3. Biger, Nahum. "Exchange Risk Implications of International Portfolio Diversification." *Journal of International Business Studies* 10 (Fall 1979), 64-74.

4. Brewer, J. L. "Investors Benefits From Corporate International Diversification." *Journal of Financial and Quantitative Analysis* 16 (March 1982), 113-125.

5. Errunza, Vihang R. "Gains from Portfolio Diversification into Less Developed Countries' Securities." *Journal of International Business Studies* 8 (Fall/Winter 1977), 83-99.

6. Finnerty, Joseph E., and Thomas Schneeweis. "The Comovement of International Assets Returns." *Journal of International Business Studies* 10 (Winter 1979), 66-78.

7. Fung, W. K. H. "Gains from International Portfolio Diversification: A Comment." *Journal of Business, Finance, and Accounting* 6 (Spring 1979), 45-49.

8. Grubel, Herbert G., and Kenneth Fadner. "The Interdependence of International Equity Markets." *Journal of Finance* 26 (March 1971), 89-94.

9. Johnson, R. Stafford, and Richard A. Zuber. "Model for Constructing Currency Cocktails." *Journal of Business Economics* 14 (May 1979), 9-14.

10. Lessard, Donald R. "International Portfolio Diversification: A Multivariate Analysis for a Group of Latin American Countries." *Journal of Finance* 23 (June 1973), 619-634.

———. "World, Country, and Industry Relationships in Equity Returns." *Financial Analysts Journal* (January-February 1976), 32-38.

11. Levy, Haim. "Optimal Portfolio of Foreign Currencies with Borrowing and Lending." *Journal of Money, Credit, and Banking* 13 (August 1981), 326-341.

12. Markowitz, Harry. "Portfolio Selection." *Journal of Finance* (March 1952), 77-91.

13. Rugman, Alan M. "Risk Reduction by International Diversification." *Journal of International Business Studies* 7 (Fall/Winter 1976), 75-80.

14. Solnik, Bruno H. "The International Pricing of Risk: An Empirical Examination of the World Market Structure." *Journal of Finance* 29 (May 1974), 365-378.

———. "Why Not Diversify Internationally Rather Than Domestically?" *Financial Analysts Journal* (July-August 1974), 48-54.

A CERTAINTY-EQUIVALENT APPROACH TO THE VALUATION OF RISKY REAL ESTATE INVESTMENTS

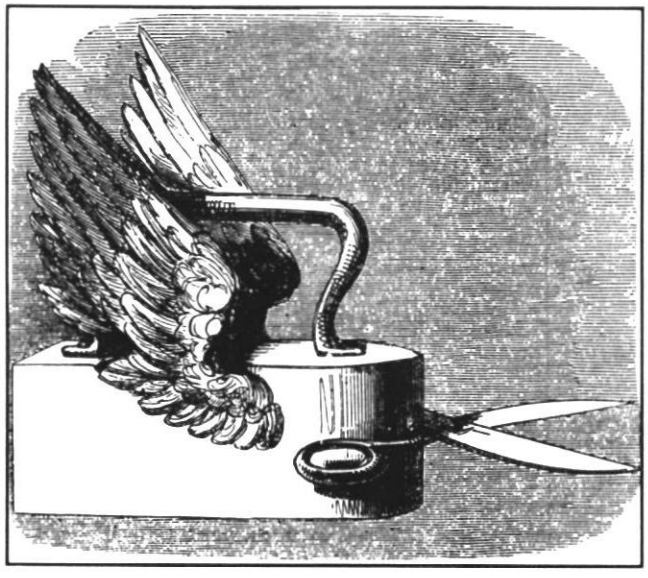
by Murad Antia, Steven D. Kapplin, and Richard Meyer

The valuation of real estate is one of the most significant activities in real property analysis. Purchase decisions, lending decisions, development and other decisions all rely upon valuation analysis. The quality and accuracy of an appraisal is therefore critical.

Recently concerns have been expressed about the distortion of values created by rapidly increasing rates of inflation, creative financing techniques, and changing project risks under uncertain economic conditions, and how they might impact on capitalization rates. The treatment of inflation, financial structure and project risk has been presented in various ways. This article presents a methodology for deriving value under conditions of risk. It will first present the background material on the basic theory behind the model. This will be followed by an illustration of two applications of the model; an example of a one-period project and an example of a multi-period project.

Background Material

This article derives principally from the Capital Asset Pricing Theory which was originally presented in the framework of corporate finance and investments. The development of the Capital Asset Pricing Model (CAPM) has been credited to Sharpe[1] and Lintner[2].



The essence of the capital asset theory is the assumption that risky investments actually incorporate two types of risk—unsystematic risk and systematic risk. Unsystematic risk is viewed as being peculiar to the firm, such as risk of strikes or other labor disputes, inability to secure competitive prices on essential raw materials, or poor product marketing. Unsystematic risk is perceived as being different from firm to firm, so that investors, by careful selection, can devise investment portfolios which by virtue of diversification tend to cancel out unsystematic risk.

Proof of the ability of a portfolio of investments to reduce risk was presented by Markowitz[3]. Sharpe theorized that if investors could reduce or eliminate unsystematic risk through diversification, then they were not entitled to receive risk premiums to compensate for unsystematic risk. Therefore, only the systematic risk component was compensated for in the marketplace.

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Systematic risk is perceived as an external risk factor, which is not peculiar to the firm and which affects all investments in the market, although not all to the same extent. Systematic risk is also often referred to as "market related risk". Sharpe, Lintner, and others showed that in a competitive market there was a linear relationship between investment returns and the correlation of investment risk to market risk. This latter concept of the relationship between investment and market returns became known as the investment's "Beta" coefficient—a risk measure which quantifies the riskiness of an investment relative to the market of all investments.

The capital asset theory provided the basis for developing the Capital Asset Pricing Model (CAPM), a quantitative model for estimating "risky" rates of returns for investments. Its form is presented below as equation (1):

$$k_j = R_f + [(r_{jm} \times s_j)/s_m] \times [E(R_m) - R_f] \quad (1)$$

where:

k_j = required return on asset j
R_f = risk-free rate of return
r_{jm} = correlation coefficient of returns between asset, j, and the market index, m
$E(R_m)$ = expected return on the market index
s_j and s_m = standard deviations of returns on asset, j, and the market index, m, respectively

The "Beta" risk measure is the term $(r_{jm} \times s_j)/s_m$ in equation (1). Thus, this equation can be restated as equation (2):

$$k_j = R_f + B_j \times [E(R_m) - R_f] \quad (2)$$

The "market index" refers to some economic indicator to which individual investment returns are correlated. For most empirical research the market index commonly used is Standard and Poor's 500 Stocks Index. However, other indexes have been used including the Dow-Jones Industrial Stocks Index. Both are useful indexes of overall stock market performance, and have been used in most capital asset model tests because the model was developed primarily as a tool for deriving rates of returns on corporate securities. No such equivalent "market index" is widely available for real estate investment markets.

Since 1976 several articles in various publications have illustrated possible applications of the capital asset pricing model for deriving "risky" capitalization rates for investment real estate.[4] The usual approach for applying the CAPM involves preparing estimates of periodic rates of returns for individual projects and correlating them with the returns for some appropriate market index. Applying the model to real estate requires obtaining measures of project returns. The next section of this article will focus on this problem.

Deriving Correct Project Values

Let one assume a unique real estate investment which has a one period life. If this project were purchased for cost, C, and produced net cash flows of CF (which includes terminal proceeds), then the rate of return (ROI) for this project could be expressed as

$$R_j = CF_j/C_j - 1 \quad (3)$$

where:

R_j = expected return for project, j
CF_j = expected cash flow from project, j

If cost and value are equal, then R_j, the project's expected return, and k_j, the project's required return, are also equal. But appraisal theory teaches that cost and value are not necessarily synonymous. Value is usually defined in terms of highest and best use under normally competitive market conditions. When those conditions prevail, i.e., markets are in equilibrium, then cost and value tend to be the same. But when markets are in disequilibrium, cost and value may be quite different. When markets are in disequilibrium, the calculation of k_j based upon cost can become distorted. If k_j is calculated properly, then it is found as

$$R_j = CF_j/V_j - 1 \quad (4)$$

where:

V_j = project value
R_j = required project return

It should be obvious that if one uses equation (4), then a problem is presented. Value is a term in the denominator used for estimating project k_j. However, the purpose of estimating k_j was to estimate value. If cost and value were always assumed to be equal, then this problem is nonexistent. But since cost and value are not usually equal, then calculating a capitalization rate based upon cost will necessarily bias estimates of value. Depending upon the conditions of the market, this bias could be either upwards or downwards.

Since estimating value using capitalization rates requires knowing value in order to derive them, a sort of "Catch 22" is apparent. The following methodology presents a way of deriving market values which circumvents this dilemma. The methodology is unique in that it conforms with modern capital market theory and capital budgeting techniques, but does not require that k_j be known before value is estimated. This variation of the CAPM relies upon a valuation technique known as the "certainty equivalent" approach.[5] The methodology does not rely upon computing discount rates which may be biased, so it may have particular interest to the valuation profession.

Model Development

Previously, the basic elements of the CAPM were outlined and the model's format for deriving "risky" discount rates was described as equation (1):

$$k_j = R_f + [(r_{jm} \times s_j)/s_m] \times [E(R_m) - R_f]$$

In the above equation, k_j has been defined as the required return on risky asset j. Because the rate of return on a single period investment is simply the project's cash

flows divided by the project's value, the project's rate of return can also be defined as

$$k_j = E(CF_j) / V_j - 1 \quad (5)$$

where:

$E(CF_j)$ = expected cash flow (which includes terminal value)

V_j = project value

The standard deviation of k_j as just defined would then be

$$s_j = s_{cf} / V_j \quad (6)$$

where:

s_{cf} = standard deviation of cash flows of project $_j$

If the preceding equations are substituted in the general model, equation (2), then one obtains

$$E(CF_j)/V_j - 1 = R_f + (r_{jm}/s_m) \times [E(R_m) - R_f] \times s_{cf}/V_j \quad (7)$$

or

$$V_j = \frac{E(CF_j) - (r_{jm}/s_m) \times s_{cf} \times [E(R_m) - R_f]}{1 + R_f} \quad (8)$$

This model conforms to the general assumptions of capital market theory and appraisal theory. All of the terms needed in equation (8) are readily available or can be easily computed. However, before proceeding, it is important to discuss the various terms of equation (8) and probable sources of data.

The risk-free rate, R_f, usually represents the return on a riskless investment of similar maturity to the investment under analysis. Generally, a government security is available which can act as the proxy for the risk-free rate. The term r_{jm}/s_m is a bit more difficult to derive. The numerator, r_{jm}, is the coefficient of correlation between the project returns and the return on the market index. Determining this correlation coefficient requires some additional data on the market index and another computational procedure similar to the one used to compute project expected cash flows and standard deviation.

The market index referred to here is itself a point of contention among researchers. Some of them think that when valuing real estate it is improper to use a non-real estate index like Standard and Poor's 500 Stock Index. They argue that the stock indexes reflect the performance of a completely different type of investment. Stocks are financial assets whose values are more sensitive than real estate to changing interest rates, inflation and general economic conditions. Further, they argue that the stock indexes tend to be more responsive to short-run effects. Real estate, on the other hand, is a real asset, long-term and generally producing more stable revenue streams. Stocks are divisible, while real estate must usually be purchased in its entirety.

Of course, these arguments are all worth considering. However, the availability of REITs, pension fund trusts, and limited partnerships would tend to make real estate a more divisible commodity. REITs, in particular, represent a financial asset more than a real asset. Nevertheless, one could argue that as long as all real estate investments were evaluated in comparison with one index, then there should exist a certain standard of comparison. Real estate returns could, then, be safely compared with the securities markets.[6,7]

This article does not purport to consider the relevant index, but rather to illustrate how that index would be used within the context of valuation using the certainty equivalent variation of the CAPM. To illustrate the application completely, some market index assumptions will be established so that the required data for the "certainty equivalent" model can be derived. The illustration will first present an example of a one-period project, then an example of the more general multi-period case.

An Illustration

Let one make the following project assumptions regarding a hypothetical real estate investment:

Probability of Occurrence	Net Operating Income
.10	$ 50,000
.20	75,000
.30	100,000
.40	125,000

The calculation of E(NOI) or expected net operating income is:

E(NOI) =

.10 × 50,000 = 5,000
.20 × 75,000 = 15,000
.30 × 100,000 = 30,000
.40 × 125,000 = 50,000

E(NOI) = $100,000 (Note: includes terminal proceeds because this is a one period project)

The expected net operating income for this hypothetical investment has been found to be $100,000 per period. This was found by multiplying each assigned probability times the corresponding NOI associated with it, a method known as computing a "weighted" average. If all the probabilities had been equal (.25), then one could have used the "simple" average which is found by adding up individual NOIs and then dividing by the number of observations, which is four in this case.

Next, the standard deviation of the net operating income will be computed by using a table.

TABLE 1

Computation of Standard Deviation of NOI

(1) Probability	(2) NOI	(3) NOI_1-E(NOI)	(4) (Col. 3)²	(5) Col. 1 × Col. 4
.10	$ 50,000	$−50,000	$2,500,000,000	$250,000,000
.20	75,000	−25,000	625,000,000	125,000,000
.30	100,000	0	0	0
.40	125,000	+25,000	625,000,000	250,000,000
			Variance =	$625,000,000

Standard Deviation = $\sqrt{625,000,000}$

Standard Deviation (s_{noi}) = $25,000

The mathematical procedure required to compute standard deviation first requires that one calculates variance. The standard deviation is then found as the square root of the variance. The mathematical formula is summarized as

$$\text{STD DEV} = \sqrt{\sum_{I=1}^{N} p_I \times (NOI_I - E(NOI)^2}$$

where:

STD DEV = standard deviation (s_{noi})

p_I = probability of NOI_I

Σ = summation operator

N = number of occurrences, four in this example

The results for the hypothetical investment here indicate an expected NOI, E(NOI) = $100,000 with a standard deviation of E(NOI), s_{noi} = $25,000.

Next, a similar set of operations is performed in order to derive the characteristics of the market index.

Probability of Occurrence	Return on Market Index
.10	−.10
.20	.10
.30	.15
.40	.25

$E(R_m)$ =

.10 × −.10 = −0.01
.20 × .10 = 0.02
.30 × .15 = 0.045
.40 × .25 = 0.1

$E(R_m)$ = 0.1555

In the preceding illustration there are some market index returns associated with probabilities corresponding to those used in the computations used for the hypothetical real estate project. The indicated market return is $E(R_m)$ = .1555, while the standard deviation of returns for the market is s_m = .10356. The following computations illustrate the determination of the correlation coefficient, r_{jm}:

TABLE 2

Computation of Standard Deviation of $E(R_m)$

(1) Probability	(2) (R_m)	(3) $R_m - E(R_m)$	(4) (Col. 3)²	(5) Col. 1 × Col. 4
.10	−.10	−.255	.065025	.0065025
.20	.10	−.055	.003025	.0006050
.30	.15	−.005	.000025	.0000075
.40	.25	.095	.009025	.0036100
			Variance =	0.010725

Standard Deviation = $\sqrt{.010725}$

Standard Deviation (s_m) = .10356

TABLE 3

Computation of Covariance Coefficient Between Project and Market

(1) Probability	(2) $(R_m - E(R_m))$	(3) $(CF_j - E(CF_j))$	(4) (Col. 2 × Col. 3)	(5) (Col. 1 × Col. 4)
.10	−.255	$−50,000	$12,750	$1,275
.20	−.055	−25,000	1,375	275
.30	−.005	0	0	0
.40	.095	25,000	2,375	950
			Covariance Coefficient	=2,500

Correlation Coefficient r_{jm} is

$r_{jm} = Cov_{jm}/s_j \times s_m$
$= 2{,}500/(.10356 \times 25{,}000) = .09656$

The preceding result indicates that the real estate investment is correlated positively with the market index, which means that as the market index or return on the market increases, the return on the real estate investment will rise. When this paper was written, the prime rate was around .115 to .12. Since the simplifying assumption that this is a one period analysis has been made, .12 will be used as the assumed risk-free rate.

By substituting the known information into equation (8), the estimated project value, given the assumptions, is:

$$V_j = \frac{\$100{,}000 - [(.9656/.10356) \times \$25{,}000 \times (.1555 - .12)]}{(1 + .12)}$$

V_j = $81,897

The value derived here is the correct "risky" value for the project, given the assumptions of the illustration. Having estimated value, one can also solve for the "risky" discount rate applicable to this or similar investments by using equation (7) to solve for k_j,

$k_j = [.12 + (.9656/.10356) \times (.1555 - .12) \times (\$25{,}000/\$81{,}897)]$
$= .221$

Because this is a one period investment, the correct "value" of the investment under conditions of risk is $81,897. The "risky" discount rate applicable to this or similar projects is 22.1 percent. The next section will illustrate how this model can be extended from the simple one period example to the multi-period example. This latter illustration will be of specific application to most real estate projects since they usually involve holding periods greater than one year.

A Multi-Period Extension

The preceding illustration assumed a one-period investment. However, few real estate investments are single-period investments. The methodology discussed previously can also be applied to projects which have multiple cash flows occurring over more than one period. The derivation of the multi-period valuation problem is credited to Bogue and Roll.[8] It was adjusted for consistency with the capital asset pricing model framework by Fama.[9]

Equation (8) showed that a one-period investment could be valued as

$$V_j = \frac{E(CF_j) - (r_{jm}/s_m) \times s_{cf} \times [E(R_m) - R_f]}{1 + R_f}$$

For simplicity, one can reassign some of the symbols from the above equation as

$$r_{jm}/s_m \times s_{cf} = \frac{cov(E(CF),R_m) \times s_{cf}}{s_{cf} \times s_m \times s_m}$$

or

$$= \frac{cov[E(CF),R_m] \times [E(R_m) - R_f]}{s_m^2}$$

and define L as

$$L = [E(R_m) - R_f] / s_m^2 \qquad (9)$$

Equation (8) can now be redefined by substituting equation (9) as

$$V_{t-1} = \frac{E(CF_t) - L_t \times cov(CF_t,R_{mt})}{1 + R_{ft}} \qquad (10)$$

or

$$V_{t-1} = E(CF_t) \times [\frac{1 - L_t \times cov(e_t,R_{mt})}{1 + R_{ft}}] \qquad (11)$$

where: $cov(e_t,R_{mt}) = cov(CF_t,R_{mt})/E(CF_t)$

Consider first a project which will produce a single cash flow more than one period into the future. The value in time period t−2 may be found as

$$V_{t-2} = E(V_{t-1}) \times [\frac{1 - L_{t-1} \times cov(e_{t-1},R_{mt-1})}{1 + R_{ft}}] \qquad (12)$$

which, when equation (11) is substituted for the value of V_{t-1}, may be expressed as

$$V_{t-2} = E(CF_t) \times [\frac{1 - L_{t-1} \times cov(e_{t-1},R_{mt-1})}{1 + R_{ft}}] \times [\frac{1 - L_t \times cov(e_t,R_{mt})}{1 + R_{ft}}] \qquad (13)$$

and the general valuation model derives as

$$V_0 = E(CF_t) \times \prod_{j=1}^{t} \times [\frac{1 - L_j \times cov(e_j,R_{mj})}{1 + R_{fj}}] \qquad (14)$$

In order that this variation of the CAPM holds under conditions of uncertainty, only expected cash flow, $E(CF_t)$, can vary from period to period and be stochastic. The other parameters of the model, L_t, $cov(e_t,R_{mt})$, and R_{ft} may vary from period to period, but their values in each period must be known with certainty. If these conditions hold and L_t, $cov(e_t,R_{mt})$, and R_{ft} are constants, then the general valuation model may be reduced to the following form:

$$V_0 = E(CF_t) \times [\frac{1 - L \times cov(e,R_m)}{1 + R_f}]^t \qquad (15)$$

which is equivalent to the constant risk-adjusted discount model typically used in financial and appraisal theory:

$$V_0 = E(CF_t) \times [1/(1+k)]^t \qquad (16)$$

One may now assume investment in a project with multiple cash flows over a time horizon from t=1 to n and also make the typical assumption that each period's cash flow is equally as risky. In this case, each period's cash flow may differ, which would be typical in most investment feasibility analyses of net cash flows. Project value may be found as

$$V_0 = \sum_{t=1}^{n} E(CF_t) \times [\frac{1 - L \times cov(e,R_m)}{1 + R_f}]^t \qquad (17)$$

Finally, one may assume that the cash flows expected in each period are constant. In other words, one is dealing with an annuity. This would be the typical assumption in usual income capitalization where the net operating income is assumed constant over the expected economic life of the property. In this case, the project's value is found by

$$V_0 = E(CF_0) \times \frac{\left[1 - [\frac{1 - L \times cov(e,R_m)}{1 + R_f}]^N\right]}{R_f + L \times cov(e,R_m)} \times [1 - L \times cov(e,R_m)] \qquad (18)$$

If the project's cash flows co-vary positively with the market index, as is typical, and it has a perpetual life, its value would be found as

$$V_0 = \frac{E(CF) \times [1 - L \times cov(e,R_m)]}{R_f + L \times cov(e,R_m)} \qquad (19)$$

The final section of this paper illustrates the usage of the preceding equations with the numeric data from the previously described example of the one-period investment.

A Multi-Period Illustration

In order to keep this illustration simplified, the data developed for the previously illustrated one-period investment will be used.

TABLE 4

Summary of Data for One-Period Investment

1. Expected cash flow (NOI)	$100,000
2. Expected market return (index)	15.55%
3. $Cov(E(CF_t),R_{mt})$	2,500
4. $L_t = \frac{[E(R_m) - R_f]}{s_m^2}$	3.31012
5. R_f	12.00%

By using the information in Table 4, one can develop the solution by recognizing that this particular problem usually assumes that net operating income is constant

over the holding period. This requires that one use equation (18) for the solution. Equation (18) is reproduced as

$$V_0 = E(CF_0) \times \frac{\left[1 - \left[\frac{1 - L \times cov(e,R_m)}{1 + R_f}\right]^N\right] \times [1 - L \times cov(e,R_m)]}{R_f + L \times cov(e,R_m)}$$

For the purpose of this illustration it is assumed that the holding period will be ten years, N=10. The basic computations are summarized as

$$\begin{aligned} L \times cov(e,R_m) &= L \times cov[E(CF),R_m] \,/\, E(CF) \\ &= 3.31012 \times 2{,}500 \,/\, 100{,}000 \\ &= .08275 \end{aligned}$$

therefore,

$$\begin{aligned} 1 - L \times cov(e,R_m) &= 1 - .08275 \\ &= .91725 \end{aligned}$$

substituting in equation (18),

$$V_0 = 100{,}000 \times \frac{\left[1 - \left[\frac{.91725}{1.12}\right]^{10}\right]}{.12 + .08275} \times .91725$$

$$\begin{aligned} &= 100{,}000 \times \frac{.86426}{.20275} \times .91725 \\ &= 100{,}000 \times 4.2627 \times .91725 \\ &= 100{,}000 \times 3.90997 \\ V_0 &= \$390{,}977 \text{ or rounded to } \$391{,}000 \end{aligned}$$

The valuation of the hypothetical property producing an expected net operating income of $100,000 (with standard deviation of $25,000) is found to be $391,000. One may recall that in the previous one-period illustration the risky discount rate was 22.1 percent. By substituting the risky discount rate in the standard annuity discount formula for the present value of an annuity, one finds that the present value annuity factor, PVIFA, is 3.91, thus yielding the same results as just described. The current illustration, however, demonstrates that it is possible to derive the risk-adjusted valuation of property or other income-producing investment without knowing the required discount rate in advance. The data required on the project and on the market are more easily derived than the required discount rate.

Summary And Conclusions

This paper has presented a variation of the Capital Asset Pricing Model (CAPM) using the certainty equivalent approach to derive an estimate of value for risky projects. The advantage of the methodology outlined here is that it does not require knowing or deriving a risky discount rate for solution. The technique only requires that the appraiser derive expected net operating income and standard deviation of net operating income, expected return and standard deviation for a market index. Using this basic information, an estimate of value can be derived for one-period investments or multi-period investments which have uneven or annuity cash flow patterns. The technique, then, permits appraisers to make valuation estimates on risky income properties without first having to derive or estimate required market discount rates for the properties under evaluation.

The possible disadvantages of such a methodology include lengthy computational procedures, lack of an acceptable market index (although this problem can be overcome by using the same index for all properties), and probable difficulty in communicating the logic of the method to clients. However, it is felt that such disadvantages are overcome by having a method of valuation which is not dependent upon estimating or deriving required risky discount rates through market analysis. Finally, the methodology is useful for valuing projects that are not financed, that is, cash equivalent value.

BIBLIOGRAPHY

1. Sharpe, William, "Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risk," *Journal of Finance*, (September 1964), 425-442.
2. Lintner, John, "The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets," *The Review of Economics and Statistics*, (February 1965), 13-37.
3. Markowitz, Harry, "Portfolio Selection," *Journal of Finance*, (March 1952), 77-91.
4. For a review of this literature see, "Institutional Real Estate Portfolios," Chapter 27, *Real Estate Investment: Strategy, Analysis, Decisions*, Stephen A. Pyhrr and James R. Cooper, Boston: Warren, Gorham and Lamont, 1982.
5. Robicheck, Alexander A. and Myers, Stewart C., *Optimal Financing Decisions*, Englewood Cliffs: Prentice-Hall, Inc. 1965, 80-83.
6. Hoag, James, "A Real Estate Return Index: Measurement of Risk and Return," *Proceedings of the Seminar on the Analysis of Security Prices*, University of Chicago, (May 1979), 223-259.
7. _____, "Towards Indices of Real Estate Value and Return," *Journal of Finance*, (May 1980), 569-580.
8. Bogue, M. C. and Roll, R. R., "Capital Budgeting of Risky Projects with 'Imperfect' Markets for Physical Capital," *Journal of Finance*, (May 1974), 601-613.
9. Fama, Eugene F., "Risk-Adjusted Discount Rates and Capital Budgeting Under Uncertainty," *Journal of Financial Economics*, (August 1977), 3-24.

THE SPACE TIME SEGMENTATION TECHNIQUE (ST^2): A NEW APPROACH TO MARKET ANALYSIS

by Terry V. Grissom and James L. Kuhle

It has recently been stated that basic real estate skills are in need of scientific management processes,[1] perhaps best exemplified in the real estate development and feasibility process. Today's real estate environment requires the use of the latest management, engineering, and financial techniques to ensure survival. The size of developments coupled with current financing terms and rising costs due to inflation demand more sophisticated economic planning than ever before. The purpose of this paper is to develop a new technique of market analysis for identifying development and merchandising opportunities.

The Real Estate Marketplace

Marketing forces influence the demand, supply, value and/or price that is paid for any particular land use. The basic purpose of the real estate market is to allocate space, determine development rates and land use.[2]

Market analysis is an attempt to make projections of demand and supply. In analyzing demand and supply, the forces of competition in the allocation of space, land use, and development rates aid the analyst in arriving at the information needed for decision making. Market analysis is a process of assimilating data in aggregate form and then reducing it to the explicit variables relevant to a particular site or land-use type. Therefore, the determination of use is important in understanding real estate markets. The analysis of use and use alternatives provides for a direct link between the real estate market and market theory.

The Theory

Alfred Marshall, in his neo-classical synthesis of the classical school of economics with the Austrian (marginal utilist) school, illustrated the concept of market equilibrium. He showed that the market for a specific commodity is comprised of the demand for that commodity in relation to the available supply. The demand curve is comprised of the aggregation of individual diminishing marginal utility curves. The Austrian school was composed of Carl Menger, Friedrich Von Wieser, and Eugen Von Bohm-Bawerk—the University of Vienna triumvirate—who are generally credited with the development of marginal utility economics. Simply stated, diminishing marginal utility relates to the additional satisfaction derived from one additional unit of a specific product. This satisfaction will decline with successive units of a given product.

The supply schedule is the aggregation of the intersection of the marginal and average cost curves of various quantities of products from all producing units. This theory stems from the classical schools' theory of value developed by Adam Smith, David Ricardo, and T. R. Malthus. The classical triumvirate's observations evolved out of the industrial revolution of Great Britain. The classical theory states that value is based on the cost of production.

The Neo-Classical School combined these two schools of economic thought. The result of the Marshallian syn-

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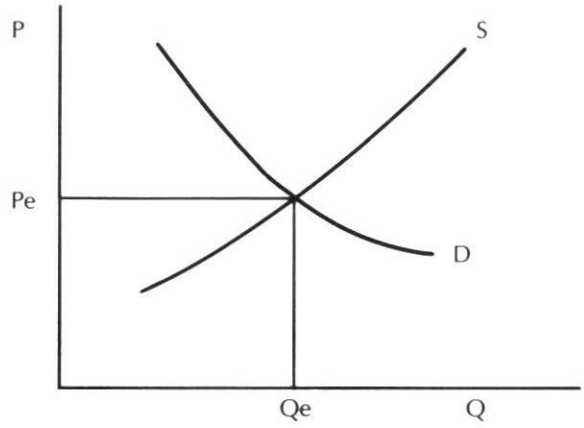
thesis is the familiar market equilibrium model illustrated in Figure 1.

FIGURE 1

Marshallian Synthesis



D = Demand schedule: based on marginal utility curves
S = Supply schedule: based on cost curves
Pe = Equilibrium price
Qe = Equilibrium quantity

The Austrian group stated that value or price was chiefly determined by demand for the goods (the D curve). The classical group stated that value-price was determined by the cost of production, the S curve. Marshall addressed this debate through the synthesis and the concept of equilibrium.

Marshall illustrates "equilibrium analysis" through his familiar scissors analogy by stating:

"We might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production. It is true that when one blade is held still, and the cutting is effected by moving the other, we may say with careless brevity that the cutting is done by the second; but the statement is not strictly accurate, and it is to be excused only so long as it claims to be merely a popular and not a strictly scientific account of what happens."[3]

This analogy suggests that one blade cannot function without the other. The market only works when demand responds to supply or vice versa at any one time. Marshall further concludes that final value or price depends upon the net, marginal conditions, which reflect the final marginal supply price of all the factors used in production as well as the marginal demand price for the commodity. This marginal analysis model and its relevance to real estate market analysis is based on the following assumptions:[4]

1) The model is an explanatory model, not a predictive one.
2) It is a stationary model which considers many time periods but collapses them all to a single time frame. The time frame is the long-run.
3) The model considers homogeneous goods. Marshall's model looks at the market for single commodities that can readily be substituted for one another. The goods are often fungible. The model considers newly-produced goods.
4) It is a deductive model. The logic format flows from the general to the specific.
5) It is a normative model. The analysis states how the market interaction of supply and demand should act, not necessarily how it works.
6) The model equates price (normal) to value. Value is a concept that occurs at the state of equilibrium (D = S).
7) The model is tied to three valuation approaches that consider different time elements.
8) The model is concerned with a value conclusion reflecting a long-term equilibrium influence.
9) The model is tied to a set of explicit and implicit assumptions which consider a stationary state under conditions of certainty and perfect competition.

The Marshall equilibrium model does not apply directly to real estate. Since real estate is a heterogeneous product, it is difficult to identify the marginal contribution in the consumption of one additional unit. Real estate is often an older good and not a new product. The substitutability of alternatives is not perfect. Therefore, given the markets' perception of real estate, alternative properties are not interchangeable (fungible) or readily substitutable. This notion conflicts with Marshall's market theory. Real estate markets vary from Marshall's general market theory in the following ways:[5]

1) Real estate cannot be graded or bought and sold from samples. Deals take place as an assortment of legal rights which vary from case to case. The transfer of real estate involves legal formalities. Each parcel is unique, heterogeneous, and neither fungible in general nor readily substituted.
2) The real estate model does not fit the perfectly competitive scenario often depicted by Marshallian theory. In some real estate cases a single buyer or seller may exercise a significant effect on the total market, a factor characterizing the "thinness" of real estate markets.
3) Other than the legal packaging of the real estate product, real estate is subject to external public and private restrictions in the use and development of space. Legal procedure also governs the validity of

agreements, that is, oral agreements not binding, the nature of transactions, and the determination of title.

4) The free flow of the real estate market is also constrained by locational and environmental aspects. Real estate is physically fixed but economically dynamic. The effect is that the market for any particular parcel of real estate is highly subject to external forces and the public infrastructure.

5) The real estate product is also interwoven with subjective perceptions of value and strong sentimental attachments to property. The market mechanism is further distorted by absentee ownership, localized knowledge, an inequitable distribution of knowledge, and antiquated leases locking competitive property off the market within certain time frames.

Hence, general market theory is limited in real estate market analysis unless the following two alternatives are considered:

1) The theory must be altered to fit the real estate framework.

2) The definition of real estate must be altered to fit the market theory.

Further, while the practice of real estate is analyzed in the context of general market theory, the following problems arise:

1) The real estate market is viewed as a two-tiered market. One tier is the sales market for the fee simple estate in property or various partial interests in real estate, which is similar to the market for producers' durable goods. The second tier is the rental or leasehold market, which is the direct market for the rights of use and possession and is similar to the market for consumer goods. These markets are often inappropriately treated as a proxy for each other in the context of the general market theory.

2) In the context of appraisal and feasibility analysis, real estate market analysis often looks only at one blade in the scissors analogy—the supply side. Appraisers/analysts often look at the supply side to interpret or explain an estimation of market demand, resulting in the analyst making short and long-term projections about future markets on the basis of sold inventories. Hence, such parameters as changes in tastes and preferences as well as effective demand are excluded.

3) The traditional appraisal and feasibility processes that look only at the supply side do consider the use/value of a project at the margin. However, they often fail to consider the marginal unit in relation to the existing stock or planned units in terms of substitutability. It is the entire existing stock and additional inventory that become the consumer's alternative in the short and long-term marketplace. This existing stock also becomes the source of competition.

   Another concern of competitive analysis is how to identify a valid substitute, given the heterogeneous real estate market.

The recognition of these three problem areas leads to the following suggestions:

1) A need to develop skills in demand analysis becomes especially important to appraisal which considers the estimation of value as one of its primary functions. Demand analysis can be improved in two ways. First of all, the analyst must develop primary research skills to obtain the most relevant and current information. Primary research is the marketing technique of direct sampling of the perceived target market for a specific commodity. Real estate types should develop sampling, surveying, and statistical skills. Secondly, the analyst must understand the quantitative techniques which allow for the complete analysis of the relationships within the primary data gathered.

2) An improved recognition of the essence of real estate is needed and can be enhanced by a better understanding of productivity analysis as applied to real estate. Improved recognition of productivity analysis allows for the identification of the common element of all real estate.[6] This element is the economic use of space over time. The space-time argument necessitates a new definition of real estate. The recognition of the common space-time unit to all real estate provides for a more logical acceptance of the general market theory assumptions of substitutability and homogenity.

3) The need for improved supply side analysis. This could be accomplished through the recognition of the common space-time element which would allow for a better description of competitive space within the appropriate market or submarkets.

The need to redefine real estate in a space-time context is necessary in order to apply general market equilibrium analysis. Further, it is a logical extension to provide for the space-time concept in the traditional supply-side analysis. The result is a logical application of market theory to the problems of data availability in a quantitative context that supports the real estate analyst's decision making ability. The technique derived is termed the space time segmentation technique or ST^2.

Conceptual Premises Of ST^2

James A. Graaskamp of the University of Wisconsin—Madison defines real estate as "artificially delineated space referenced to some point on the surface of the earth, with a fourth dimension time"[7]. He says that this artificially delineated space is created to house some economic activity, and is subject to the cultural preference and constraints of the public infrastructure.

Cultural preferences are concerned with the manner in which society views and enforces the concepts of rights in real property. The cultural preference is stated in terms of the legal enforcement of property rights and the market behavior that can be witnessed as a result of the trading of real property. An example would be the increasing preference for condominium ownership over straight fee ownership in the single-family market of some areas. The impact of cultural preference rests on the ability to create an economic value via contractual agreement in some market areas, while being denied this same ability in other areas.

The public infrastructure is apt to criticize the potential use, development, and ultimate value of any specific real estate site. The infrastructure represents the off-site capital improvements such as utilities, streets, and enforcement agencies, and is one of the primary contributors of differentials in the manufactured locational value of specific sites within a community.

By taking all of the attributes of real estate in sequence, one is able to develop a working definition of real estate that logically addresses current and future problems in this area. A synthesis of the above descriptions yields the following definition:

> Real estate is artificially delineated space with a fourth dimension time, created to house some economic activity. The space time unit is referenced to some point on the surface of the earth and is subject to the cultural preference and constrained by the public infrastructure.[8]

This definition allows for the identification of the primal productive essence of all real estate—the space-time product. By acknowledging that the space-time product is the central issue of real estate, one is able to address real estate analysis on a more formal and logical basis. By properly recognizing the space-time element, the analyst is able to identify the space-time/money-time equation that underlies the real estate process. It is through this process that the legal, physical, and spatial nature of real estate is incorporated into the overall financial and economic framework.

A direct application of the space-time concept is observed in market analysis. Previous studies have correctly identified market analysis as the determination of supply and demand for specific property types. While much theoretical effort has been put into demand analysis, little in the way of applicable demand projection and formulation has been forthcoming. Further, only limited theoretical effort has been assigned to the identification of the supply element. In practice, a number of methods have been developed and used in dealing with the supply parameter. Supply represents the total stock of space (square footage) available at any one time. Supply analysis also considers the proposed space to be developed. The typical model is identified by the following parameters:[9]

$$Q_s = S_b + V_{nb} + [(S_y + V_{ny}) - S_b + V_{nb})] - (V_s + C) + R_{b-y}$$

S_b = Existing stock in base year

V_{nb} = Allowance for a normal vacancy level

S_y = Stock forecast in future year y (includes proposed units)

V_s = Surplus vacant units

C = Units currently under construction

R_{b-y} = Anticipated demolitions during forecast period

All of the preceding parameters illustrate a limited perception of the real estate process by considering only the quantity of the space dimension of real estate and failing to consider the fourth dimension of time. The space-time element must be developed before the analyst can continue with the money-time consideration of the market and feasibility study.

By considering only the space dimension, the analyst bases his decision on incomplete information. Again, the analyst considers only one blade in the market. Real estate markets are highly differentiated because of the heterogenity of the real estate product. This implies that the market is not one mass of activity for any one type of space but is composed of numerous stratifications. The identification of these stratifications (segments) is possible by application of the space-time concept in analyzing the available supply of competitive properties. The process of combining market segmentation with the space-time element enables formulation and application of the ST^2 model.

The ST^2 Methodology

Market analysis and appraisal are applied fields of economics. Marshall's general theory is applicable to any one commodity market at a specific time. The ST^2 model is a logical extension of general market equilibrium theory and is illustrated in an application concerning office space. The existing market data for office space in regard to stratification of uses and lease terms are stated in Table 1. Segmentation of the office market from this table is achieved by grouping the existing stock of office tenants into broad use categories as illustrated in Table 2. The amount of office space used for medical, government, or certain businesses is first identified. Each group in Table 2 is then taken as a percentage of the total existing square footage.

The segmentation illustrated in Table 2 is no departure from the traditional analysis of the real estate supply. Table 2 shows that the traditional process stratifies on the basis of space. It fails, however, to incorporate the important element of time in market analysis. To better understand the potential supply within the existing stock of space, it is necessary to consider the term of the remaining lease on any particular space. The amount of

TABLE 1

Existing Market Information

Office Complex	Leaseable Area	% of Office User Type		Lease Terms
1	350,000	Medical	10%	All leases were originally
		Government	25%	signed for 3-year terms.
		Retail	20%	1/3 have 1 year remaining
		Wholesale	20%	1/3 have 2 years remaining
		Service	25%	1/3 have 3 years remaining
2	400,000	Medical	15%	All leases were originally
		Government	30%	signed for 5-year terms.
		Retail	15%	1/2 have 2 years remaining
		Wholesale	20%	1/4 have 3 years remaining
		Service	20%	1/4 have 5 years remaining
3	250,000	Medical	25%	All leases are for terms
		Government	40%	of 6 years. All leases
		Service	35%	have been signed.

TABLE 2

Segmentation of Office Space Square Footage into Use Categories

User Category	Building Number	Square Feet	% of Total
Medical	1	35,000	3.50
	2	60,000	6.00
	3	62,500	6.25
			15.75%
Government	1	87,500	8.75
	2	120,000	12.00
	3	100,000	10.00
			30.75%
Retail	1	70,000	7.00
	2	60,000	6.00
	3	0	
			13.00%
Wholesale	1	70,000	7.00
	2	80,000	8.00
	3	0	
			15.00%
Service	1	87,500	8.75
	2	80,000	8.00
	3	87,500	8.75
			25.50%
TOTALS		1,000,000	100.00%

TABLE 3

Calculation of Space-Time Units Available in the Market

User Category	Building Number	Square Feet	Lease Term	Space-Time Product	TOTALS
Medical	1	35,000	×[1/3(1 yr) + 1/3(2 yr) + 1/3(3 yr)]	= 70,000	
	2	60,000	×[1/2(2 yr) + 1/4(3 yr) + 1/4(5 yr)]	= 180,000	
	3	62,500	× 6	= 375,000	
					625,000
Government	1	87,500	×[1/3(1 yr) + 1/3(2 yr) + 1/3(3 yr)]	= 175,000	
	2	120,000	×[1/2(2 yr) + 1/4(3 yr) + 1/4(5 yr)]	= 360,000	
	3	100,000	× 6	= 600,000	
					1,135,000
Retail	1	70,000	×[1/3(1 yr) + 1/2(2 yr) + 1/3(3 yr)]	= 140,000	
	2	60,000	×[1/2(2 yr) + 1/4(3 yr) + 1/4(5 yr)]	= 180,000	
	3	0	× 6	= 0	
					320,000
Wholesale	1	70,000	×[1/3(1 yr) + 1/3(2 yr) + 1/3(3 yr)]	= 140,000	
	2	80,000	×[1/2(2 yr) + 1/4(3 yr) + 1/4(5 yr)]	= 240,000	
	3	0	× 6	= 0	
					380,000
Service	1	87,500	×[1/3(1 yr) + 1/3(2 yr) + 1/3(3 yr)]	= 175,000	
	2	80,000	×[1/2(2 yr) + 1/4(3 yr) + 1/4(5 yr)]	= 240,000	
	3	87,500	× 6	= 525,000	
					940,000

space (square footage) weighted by the remaining lease term defines the total stock of existing space-time units available in the market. The calculation of the total space-time units is illustrated in Table 3. The space-time units per user type are then calculated as a percentage of the aggregate space-time unit estimate. The percentages appear in column four of Table 4.

TABLE 4

Percentage Breakdown of Aggregate Space-Time Product

User Category	Building Number	Space-Time Product	% of Total Space-Time Product
Medical	1	70,000	2.0
	2	180,000	5.3
	3	375,000	11.0
		625,000	18.3%
Government	1	175,000	5.1
	2	360,000	10.6
	3	600,000	17.6
		1,135,000	33.3%
Retail	1	140,000	4.1
	2	180,000	5.3
		320,000	9.4%
Wholesale	1	140,000	4.1
	2	240,000	7.1
		380,000	11.2%
Service	1	175,000	5.1
	2	240,000	7.1
	3	525,000	15.6
		940,000	27.8%
TOTALS		3,400,000	100.0%

The significance of the space-time unit in market analysis is illustrated in Table 5. Table 5 is a comparison of the square footage per user group to the space-time units per user group. The comparison enables the recognition of the significant difference in product identification due to the introduction of the time element. The recognition of this difference enables the formulation of an analytical tool for market analysis. This tool is illustrated in Table 6.

In Table 6 the square footage as a percentage of the aggregate spatial area in the market is compared to the percentage of space-time units in the same market area. If the percentage difference declines or has a positive difference, one of two factors occurs:

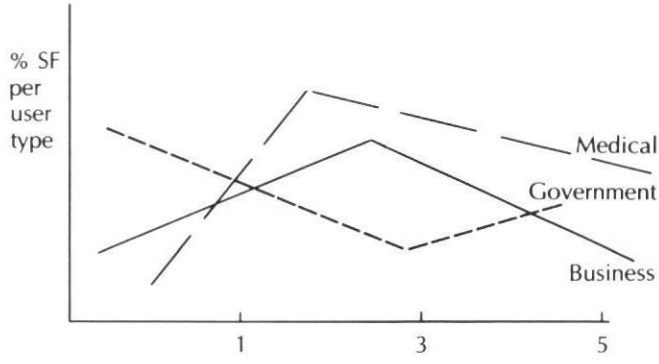
1) If the percentage declines (a positive difference), potential sources of competitive space are indicated. It is potentially competitive space if the tenant intends to renew or not renew the lease. Since these situations are never for sure, probabilities of lease renewal might be considered by weighting each lease to project a potential short-term competitive position of existing stock.

   The negative percentages indicate existing space that is locked in by lease and is off the current and intermediate market. Depending on demand, this may be the area of greatest potential development. The negative differences may be considered markets of possible development because the existing stock will not offer any competition.

2) If the tenants do not renew, they represent potential users for proposed space. An additional advantage generated from the data in Table 3 is that the comparison between the space amount and the space-time units can be used to group the existing space into a "time-frame" as illustrated in Figure 2.

FIGURE 2

Time Frame for Expected Use Competition



The time structuring illustrated in Figure 2 enables the analyst to recognize the competition from the existing stock (expected) in the intermediate term as well as in the short run. This figure shows that the existing office space for government and business use is tied in from year 1 to year 3, but many of the leases will be terminating in year 5. Thus, one might want to offer space in the market in year 3 if adequate demand is identified, and avoid competing in the market in year 5 when much of the existing space may be available. Depending upon projected demand, one might establish a marketing program that will endeavor to capture many of the tenants of the existing space since their leases will be terminating.

ST^2 As A Merchandising Technique

The ST^2 model can be used to develop a merchandising strategy and to inform the potential developer, leasing agent, etc., where the potential markets might be. For example, suppose the ST^2 model shows a decline in the medical tenant's space-time as compared to space units but shows an increase in business and government space-time over existing space. Further, suppose the demographics supporting the demand analysis indicate an increase in medical and business activities, but a decline

TABLE 5

Comparison of Square Footage to Space-Time Units per User Group

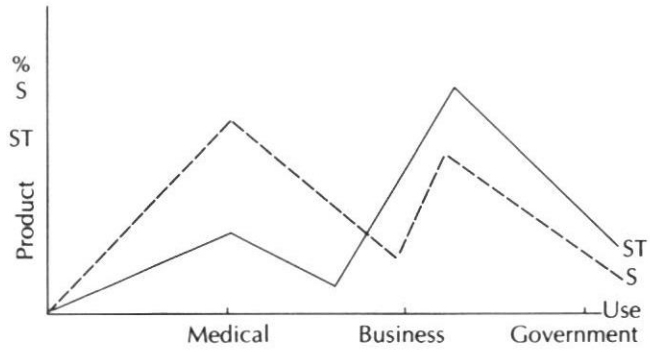
(1) User Category	(2) Building Number	(3) Square Feet	(4) Space-Time Product	Difference (4-3)
Medical	1	35,000	70,000	35,000
	2	60,000	180,000	120,000
	3	62,500	375,000	312,500
		157,500	625,000	467,500
Government	1	87,500	175,000	87,500
	2	120,000	360,000	240,000
	3	100,000	600,000	500,000
		307,500	1,135,000	827,500
Retail	1	70,000	140,000	70,000
	2	60,000	180,000	120,000
		130,000	320,000	190,000
Wholesale	1	70,000	140,000	70,000
	2	80,000	240,000	160,000
		150,000	380,000	230,000
Service	1	87,500	175,000	87,500
	2	80,000	240,000	160,000
	3	87,500	525,000	437,500
		255,000	940,000	685,000
TOTALS		1,000,000	3,400,000	2,400,000

in government demand in the market. This type of analysis would indicate a potential construction or development opportunity.

The supply side analysis of the medical, business, and government target market is depicted in Figure 3.

FIGURE 3

Comparison of Square Footage Percentage to Space-Time Percentage



where:

ST = Space-time

S = Space

TABLE 6

The Tool for Analysis: Direction and Percentage of Difference Between the Square Footage and Space-Time Units

User Category	Building Number	Square Feet (%)	Space-Time Product (%)	Direction of Difference (%)
Medical	1	3.50%	2.00%	1.50%
	2	6.00%	5.30%	.70%
	3	6.25%	11.00%	−4.75%
Government	1	8.75%	5.10%	3.65%
	2	12.00%	10.60%	1.40%
	3	10.00%	17.60%	−7.60%
Retail	1	7.00%	4.10%	2.90%
	2	6.00%	5.30%	.70%
Wholesale	1	7.00%	4.10%	2.90%
	2	8.00%	7.10%	.90%
Service	1	8.75%	5.10%	3.65%
	2	8.00%	7.10%	.90%
	3	8.75%	15.60%	−6.85%

As illustrated in Figure 3, it is probable that most of the existing medical leased space will be on the market in the short run while the government and business space is tied in for the intermediate period. Since government activity is not expected to increase locally in the foreseeable future, at least not in this example, this particular target market might best be avoided.

At the same time, however, business activity and the demand for space are increasing. The existing facilities are legally tied up and off the market. This might be the target to pursue if space can be bought on the market in appropriate time. The medical demand is also increasing, but existing space will be available in the short run. The decision to develop and merchandise medical space will depend on the projected demand and the risk parameters of the decision makers.

ST^2 Applied To Projects Proposed And Under Construction

The ST^2 model can also be applied to projects that are proposed and under construction. The analyst needs to determine the number of building permits granted and pending and to identify the building types represented by those permits. The ratio of issued permits to those applied for is useful in projecting the percentage of proposed projects. This ratio can be used as a risk or probability adjustment for the supply forecast.

Another useful ratio is the number of projects that are under construction or were recently completed in relation to the number of permits issued. This ratio allows for a comparison of planned or proposed projects to a projection of probable competitive units in the near future.

Viewing the proposed projects within a time frame leads to an estimate of possible competitive supply units in the short, intermediate, and long run. The competitive supply is comprised of existing units and those under construction as well as proposed space-time units. In addition, a lag of current competition as it relates to forecasted demand will result because of the time it takes for construction. The extension of the competitive horizon can now be projected if one determines the projected lease terms used in the newly constructed buildings.

Summary And Conclusions

This paper has addressed only the supply side of the market. Three reasons for this are:

1) Many appraisers, market analysts, and feasibility analysts frequently use supply data to interpret demand. They analyze and explain demand activity by looking at the variances (differences) between the physical, economic, legal, and financial attributes of properties that have been sold in the market.

2) Behavioral dimensions of demand have been ignored in a major portion of market appraisal and feasibility analysis. Demand is usually analyzed on a macro level using secondary information. Improvement in demand analysis will require the development of quantitative techniques and the awareness of data sources that are beyond the scope of this paper.

3) Considering the two factors above, the authors feel that an immediate development in market interpretation can be achieved through improved supply analysis. The ST^2 model is a suggestion towards achieving this goal.

The ST^2 model allows for the segmentation of market supply and hence competition. It defines real estate supply in units of comparison (space-time) that more appropriately fit the needs and behavior of the market. It also provides for the time framing of the competitive supply, which allows for the projection of short-term, intermediate, and long-term competition. Finally, ST^2 may be a method of directing the merchandising of space.

The ST^2 model is only one of many "tools" available to the analyst. Market analysis cannot rely on supply analysis alone and can only be improved if both supply and demand potential are appropriately estimated. It is felt that the ST^2 model is a step in this direction.

NOTES

1. James A. Graaskamp, Real Estate Process Lecture, Business 550/705 class, 1979.
2. George Bloom, Arthur Weimer and Jeffrey Fisher, *Real Estate* (New York: John Wiley and Company, 1982), 351-356.
3. Alfred Marshall, *Principles of Economics*, 8th Edition (Philadelphia, 1979), 290.
4. Terry V. Grissom, *The Analysis of the Appraisal Process as Applied to Land Corridors*, Dissertation, Chapter III (Ann Arbor, Michigan: University Microfilms), 197-201.
5. Bloom, et al 356-361.
6. Richard U. Ratcliff, *Valuation for Real Estate Decisions* (Santa Cruz, California: Democrat Press, 1972), 15-48.
7. James A. Graaskamp, Seminar, Real Estate Feasibility Analysis Program Materials (Reno, Nevada: Society of Real Estate Appraisers, 1979), 1-2.
8. Terry V. Grissom, Chapter I, 10.
9. James A. Graaskamp, *A Guide to Feasibility Analysis* (Chicago: Society of Real Estate Appraisers, 1973), 36-37. The parameters included in the formula for supply are suggested by Graaskamp and derived from an article on housing demand by Bruce Singer, "A Systematic Approach to Housing Market Analysis," *Appraisal Journal*, American Institute of Real Estate Appraisers, October 1967.

Seldin On Change
A TIME TO BUY, A TIME TO SELL

by Maury Seldin, CRE

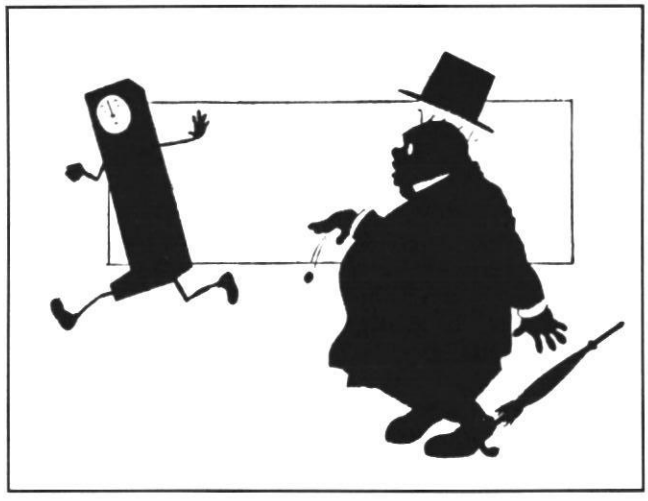
Timing and location are the two most critical variables in an investment decision. If one is able to pick the right time and the right location, one can absorb any loss associated with most errors and still do quite well.

A substantial body of literature about location exists. A close look at current analyses, however, reveals an inordinate amount of stress placed on numerical analyses rather than spatial analyses. Little hard analysis of the location and the reasons that it is expected to get better exist. Although the spatial aspect is a favorite topic of mine, I intend to deal with the variable of timing here.

Most discussions on timing deal with the question of when to get in. The stock market was in the doldrums for a decade. Within the last year, prices have skyrocketed. The question is: "Is it too late or still just the beginning?" Obviously those who were acquiring stock heavily near the end of the doldrum period had exquisite timing. Hindsight in these matters is 20/20 because the data for stock are so good.

Judging Location, Timing Factors On Real Estate

In the case of real estate, it is not so easy to know exactly what the pace was because we don't have the same array of indexes from which to choose. The existing indexes do not have the breadth of coverage of the Standard and Poor's 500. One cannot obtain the details by segments of the real estate market comparable to segments of the stock market, that is, by industry.



In general, land prices had been increasing for a long time before the recent turndown. Just how long it will be before there is a resurgence is anybody's guess. It could take some time before a long upward trend takes place. It is probable that some locations are not going to improve substantially and that land investments are not appropriate. Indeed, opportunities exist today but timing was better a quarter century before the recent downturn. During that time period, one could hardly go wrong since most locations actually did improve.

In the 1970s housing prices skyrocketed. The expectation of continued inflation induced many people to buy. Environmental regulations made additions to the supply more expensive. Demographic projections indicate changing markets such as housing for smaller sized

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This article is the sixth in a series by Dr. Seldin, which will focus on the problem of change in the real estate industry.

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households. If one is able to pick the right time to enter a submarket or the right submarket at a given time, then one can do well.

Rental housing has had its heyday. In the early 1960s there was a tremendous increase in apartments because lenders had a lot of money to push out and developers could mortgage out. There was also a market to serve at that time. The numbers for new rental construction, which is nonsubsidized, simply don't work very well. This type of construction is not profitable if one looks at the rent and cost relationship, especially the cost of money. This situation may change as interest rates decline and rents rise.

Currently, however, when one looks at the relationship between rent and financing cost, it is only the favorable depreciation rules and the hope of inflation that give such investments a chance. Many small investors have entered the condo market looking to get in on the action, and have paid high prices relative to rents, with the expectation of continued increased prices.

Many condo investors are disappointed because what has really happened is that apartment investors have been buying apartment units wholesale while condo investors have been buying them retail—one at a time.

Other changes in nonresidential markets have taken place over time, but these illustrations in land and residential investments are sufficient to point out those times in which it is easy to get winners and other times in which it is very difficult.

Some factors are related to society's fundamental need for real estate: The demand for housing because of household formation; the demand for more shopping facilities because the location of those households has shifted, and the demand for office and other employment space because employment is increasing. Other factors come into play in regard to this timing. The importance of the cost of money has been driven home in recent years. Part of this volatility in the cost of money lies in the inflationary expectation.

Effect Of Interest Rates On Buying Decisions

It was a great time to buy when money was cheap. For decades lenders were taking short-term deposits and lending long with only a modest spread. They took the risk of rising interest rates. As the rates for money rose with inflation, lenders increased the rates they charged for money, but they could only increase the rates on new loans. They did not charge enough to be adequately compensated for the risks being taken.

Many S&Ls did not survive the rush of rapidly rising rates. The value of their loan portfolios depreciated so rapidly that many of these institutions were counting the days until their net worth would be negative. When money was cheap, it was the time to borrow. Real estate was good security for borrowing, so one really didn't have to buy a fantastic real estate investment in order to make money. A good loan would make more money than a mediocre selection in real estate. It was only necessary for the income-producing ability of the real estate to keep pace with inflation. The long-term low interest rate loan would turn out to be a more valuable asset and could produce more benefit than the inflation adjusted profit from the real estate investment itself.

Lenders have learned to shy away from the risk associated with interest rates. Using variable rates or call provisions, they try to pass on the risk to the borrower. As an alternative, they go to the long-term capital market and issue pass-through securities, so that those who were willing to lend long-term funds are matched off with those looking to borrow long. The survivors typically avoid borrowing short and lending long without some form of protection.

If one believes that the current long-term rates of interest are really low, then one may decide to borrow lots of money and hope that the rates really do turn out to be low. The rates could be low if there were a resurgence of inflation, and definitely would be if there were hyperinflation.

At current rates of inflation, however, the real rate of interest is high. Borrowers are paying substantial premiums to lenders for long-term funds because lenders are wary of taking the risk of interest rate again. One might argue that an explanation for the premium at the shorter end of the market is that lenders who have been burned by inflation are taking an opportunity to recover from losses or obtain compensatory profits.

Many real estate investors who don't think that this is the best time to borrow a lot of money are putting down a substantial portion of the purchase price and, in some cases, they are paying in cash. This practice is aside from pension funds which by their nature are required to buy for all cash. A look at the changing mix of benefits indicates why higher down payments are required.

Advantages Of Investment

The benefits of investment may be classified as cash flow, tax shelter, and proceeds of sale. The cash flow relative to the down payment has been diminished substantially over the last quarter century due to the substantial increase in the cost of borrowed money. The rapidly rising annual constants (ratio of mortgage payment to loan) take away much of the operating income.

Although the benefit of cash flow in the case of heavily financed properties has been diminished, the benefit of tax shelter has increased due to the change in the tax law. Under current tax law, one may recover an investment in depreciable real estate over 15 years, whereas in the past one might need to use as much as 40 to 50 years. Furthermore, when one pays the tax, the long-term capital exclusion is up from 50 to 60 percent and the marginal tax rate is down from 70 to 50 percent. This means that in general one can deal with a maximum 20 percent effective tax rate instead of substantially higher marginal rates. The tax saving is so great that many investors will give up some or all of it in order to offset the negative cash flow

from heavily financed properties. In other words, they count the tax savings as an offset to the negative cash flow. It is obvious that they are looking for the benefit of proceeds of sale where the big profit is. In an inflationary economy, the increase in the price level results in the high proceeds of sale.

This situation leads me to a major point: More attention needs to be directed toward the time to sell. Many investors who bought real estate at peak prices in the past, now find that inflation has abated and prices have receded. These investors may wish that they had not bought, and the would-be sellers may wish that they had sold.

Foresight is not 20/20. However, some intelligent guesses as to what will happen in the future can be made even though accurate guesses are becoming more difficult all the time. The best advice I can give to a professional forecaster is to make lots of forecasts and keep all your own records. The investor is advised to make his/her best forecast and be prepared to defend it in case it's wrong.

Real estate should not be so financed that the investor might be forced to sell since the conditions forcing one to sell are the same conditions that make it the wrong time to sell. One must be able to choose the time to sell. Making a good choice may be hard because the future is uncertain. One way to deal with this situation is to sell when one feels that he/she will be under pressure to sell anyway but at a later date.

One may choose to sell now rather than at a later time if it is necessary to recoup the money for other investments or commitments. Some real estate empires have crumbled due to a domino effect: First of all, a bad deal forced the increase of money at a very high cost. But the money to repay the loan was tied up in real estate. Then a series of sales were forced at exactly the wrong time. Even investors with small investments can be put under that type of strain. For example, a young investor with small children can save for the college education of his/her children by buying rental property which just carries itself. Given enough time, the mortgage on the property will be nearly, if not all, paid off, and presumably the value of the real estate will have risen enough to pay for the rising costs of education. Many investors will start saving for such a purpose when the children are teenagers and only five years are left in which to accumulate the money. With such a short time period in which to dispose of the property, there may be unfavorable markets. Thus, timing elements should be planned on well in advance since it may take years for a market to shift.

I believe that real estate investors currently face another risk which potentially could be as hazardous as the decline in the rate of inflation. This risk is the change in the tax law. If one runs the numbers through on the extent of the benefit that one receives with a 15-year depreciation period as opposed to a 40-year period, one will find a substantial difference in annual depreciation. If the difference in tax savings with a 60 percent exclusion is compared to savings with a 50 percent exclusion, one will see that some real estate investments produce a substantial portion of their income because of the favorable treatment of the tax law. That tax law can change.

If a change to less favorable tax treatment does take place, the mix of benefits will change. There will be less shelter in real estate. If the inflation problem is really solved or abates for a long period, then the proceeds of sale are not going to be boosted up by rapidly growing price levels. Now might well be a good time to sell.

Importance Of Well-Structured Investment Portfolio

This is not to say that I am recommending that investors immediately run out and start selling real estate because the battle against inflation is being won and the favorable tax treatment of real estate will be removed after the next election. It may happen, but then again it may not. What I am suggesting is that the real estate investor have his/her total investment portfolio (real estate and non-real estate) so structured that those changes will be tolerable.

The risks that one might not find tolerable on a single investment might well be acceptable if one has sufficient diversification. Furthermore, if the prices do not continue in their upward trend due to inflation, and if the tax shelter is diminished so that the next round of purchasers would pay less, it may make little difference to the investor if he/she has no need to sell. If one is really prepared to live with the investment for a long period of time, that is, if the cost of financing doesn't turn out to be too high and if there is no particular reason to sell, then one can be protected from the changes in the marketplace in the timing of a sale because one doesn't have to sell.

Real estate investment portfolios should be designed so that the investor can afford not to sell. If one is running out of depreciation, it might not be a bad time to make a move. If one has a balloon mortgage coming due in two or three years, it might not be a bad time to recast the financing. If one is going to need the money in a few years, it might not be a bad time to sell.

An investor should not get into a position where he/she really needs to make the decision to sell a particular property at a particular time. The property should be an attractive investment even without the depreciation, due to the income that the property produces. An investor should have no interest in selling and paying the tax on a property or in trading up and taking on more debt. The balloon payment may be of little concern to the investor who has marketable securities in his/her portfolio and can meet the call.

Similarly, if an investor is going to need substantial amounts of money and he/she has alternative investments which are liquid as almost all alternative investments are, then one could afford to wait it out.

One may hope for the best, but one should plan for the worst. Instead of just focusing on a time to buy, more thought should be given to a time to sell.

TIME SHARING: ISSUES ON A GROWING FORM OF HOME OWNERSHIP

by Roger W. Caves

While the search for the American vacation home continues, the rising cost of homes is making it exceedingly difficult for individuals to purchase vacation or second homes. This predicament has led to numerous private sector responses which are designed to increase vacation housing opportunities.

This paper examines the increasingly popular concept of "time sharing." It is divided into three main sections. The first section provides a general overview and definition of time sharing. The second one deals with public policy responses to time sharing. The final section analyzes the court handling of individual time sharing controversies.

Definition And Overview

Any discussion of time sharing must be preceded by its definition. Hart and Pfrommer define it as,

> a method whereby a purchaser acquires either fee title "interval ownership" or a lease of license "right to use" to accommodations—usually in a resort area—for a designated period of time.[1]

These accommodations could be a condominium, townhouse, or some other form of property. Although most individuals view time sharing in a resort context, variations of the concept have surfaced. One type, described by Madsen, is a form of "urban" time sharing,[2] which is popular with individuals desiring to take advantage of a city's cultural opportunities such as museums, art galleries or theaters. Companies are also taking advantage of urban time sharing opportunities. As Madsen points out, this provides an alternative to hotels and offers luxury accommodations, cost savings, and, in the case of fee timeshares, the tax advantages of a real estate purchase.[3]

Many Americans have been exposed to the concept of time sharing. It is a common occurrence throughout the country for an individual to receive a letter indicating he/she has won a gift such as a meal, telephone, television or trip. In order to collect the gift, the individual must visit the time share project, which is often a resort area, and listen to a sales pitch designed to persuade him/her to enter into a time share arrangement.

The growth of the time sharing industry has been rapid. In 1975 time sharing represented a $50 million business.[4] In an article written in 1982, Smith noted that it has grown into an industry with annual sales in excess of $1 billion.[5] Industry experts estimated that at least 600 time share resort locations were established in this country and hundreds more worldwide.[6] The practice of time sharing

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certainly has developed into an established industry which is likely to continue to grow in the future.

Time sharing represents a complex area of inquiry. Questions concerning real property, zoning, subdivision regulations, and the health, safety and welfare of the general public, along with other issues can be raised. It is up to the various levels of government to develop rules and/or regulations which address these concerns.

Public Policy Responses

Although there is no federal legislation dealing specifically with time sharing, various pieces of legislation can affect potential time sharing projects in some way. For example, the Office of Interstate Land Sales Registration (OILSR) of the Department of Housing and Urban Development (HUD) is responsible for implementing the disclosure requirements of the Interstate Land Sales Full Disclosure Act of 1968.[7] This Act makes it illegal to sell land that is part of a common promotional scheme comprised of 50 or more lots, prior to the filing of a Statement of Record[8] with OILSR. Its registration requirement represents an attempt to protect consumers from deceptive individuals who try to market undeveloped land through the mail.

Five years later, through the Federal Trade Commission Act,[9] the Federal Trade Commission (FTC) was vested with the power "to . . . prevent persons, partnerships, or corporations . . . from using unfair methods of competition in commerce and unfair or deceptive acts or practices in or affecting commerce."[10]

The federal government also publishes a variety of materials on time sharing. The FTC publishes a brochure that gives nine tips to help prospective time share buyers:

1) Be wary of giveaway promotions.
2) Is an exchange program available?
3) What is the investment potential of the property?
4) What are the total costs?
5) Rely on legal counsel.
6) Are all promises in writing?
7) Is the developer reputable?
8) What about unfinished lots?
9) Evaluate default protection.[11]

Prospective time share buyers should examine all available information before reaching any decision.

As noted earlier, the time sharing industry has grown tremendously in a relatively short period. One can be certain that additional pieces of legislation will enter the picture.

Situations differ in individual states. Time sharing may be a growing or controversial concern in some areas. These states may need to develop and implement specific pieces of legislation concerning time sharing.[12] Other states may not feel the need to develop new legislation and simply amend existing legislation to handle the problem.[13]

California has an extensive amount of time sharing legislation. It defines a time share project as:

> one in which a purchaser receives the right in perpetuity, for life, or for a term of years, to the recurrent, exclusive use or occupancy of a lot, parcel, unit, or segment of real property, annually or on some other periodic basis, for a period of time that has been or will be allotted from the use or occupancy periods into which the project has been divided.[14]

A license, or contractual or membership right of occupancy, in a time share project which is not coupled with an estate in the real property constitutes a time share use.[15]

A major portion of the legislation deals with the requirement that anyone intending to offer subdivided land has to submit a subdivision public report for a time share project. The report will be deemed a "substantially complete application" if it contains, among other items, such information as:

1) Completed subdivision questionnaire and supplemental questionnaires where applicable.
2) Current preliminary title report for all dwelling units comprising the time share project.
3) Copy of proposed agreement for management of the project.
4) Evidence of financial arrangements for any guarantee or warranty included in the offering.
5) Copies of all contracts and promotional and informational materials pertaining to a program included in the time share offering involving the exchange of occupancy rights by owners in the project with owners in interests in other time share projects.[16]

The California legislation also covers other items such as the creation of a time share interest owners association. It contains requirements ranging from members' voting rights,[17] governing body election and make-up,[18] dissemination of financial and other information to all members,[19] to disciplining owners for violations.[20]

While California has developed extensive time sharing legislation, other legislation could also have an effect. For example, California has enacted legislation prohibiting discrimination in housing.[21] These pieces of legislation are certain to be cited as allegations of discrimination in time share housing.

Some states have even created committees or commissions to study the condominium industry. At the request of the Maryland General Assembly, the Governor of Maryland created the Commission on Condominiums in 1977.[22] The Commission's mandate was,

> to investigate the condominium industry in Maryland, review and evaluate existing laws pertaining to condominiums, ascertain what problems exist in development and operations, report its findings to the Governor and General Assembly, and make recommendations for legislative action.[23]

Although the idea of creating another committee or commission to study a problem may seem to be adding to the already confusing bureaucratic maze of government, logic dictates that one must understand a problem before one can design actions which could lead to its alleviation.

Individual states do not have to go through the difficult task of creating acts to regulate time sharing. If they so desire, they can investigate the feasibility of partially or fully adopting two Model Time Sharing Acts: 1) Uniform Model Real Estate Time Share Act of 1979 (URETSA),[24] and/or 2) American Land Development Association/ National Association of Real Estate Law Officials (ALDA/ NARELLO) Model Timesharing Act.[25]

The URETSA, [26] developed by the National Conference of Commissions on Uniform State Laws in 1979, addresses time sharing in a thorough manner. It examines time sharing from the beginnings of a proposed project to the aspect of consumer protection. The URETSA was approved by the American Bar Association.

The ALDA/NARELLO Act is a type of disclosure statute. This requires a time share developed to issue a public statement which gives prospective buyers information concerning a particular time share project. It is unfortunate that ways to maneuver around the requirements became evident. Consequently, a new act was drafted to better protect the consumer. Burnett notes that it goes beyond disclosure and calls for compliance with a number of requirements which are designed to ensure the following:

1) Each time share program will be created with the necessary legal protections for the buyer.
2) The consumer's right will be protected against any underlying encumbrances or foreclosures on the property.
3) The function and capabilities of exchange networks will be disclosed.
4) All advertising and presentations made to the prospect will be truthful and representative of the subject.
5) The state agency regulating time share sales will have the power to issue Cease and Desist Orders and impose sanctions.[27]

Localities also have the power to control time sharing either directly or indirectly. Through the police power, localities can place restrictions on the use of land for the purpose of promoting and protecting the health, safety, welfare and morals of its residents. These restrictions can take the form of zoning or subdivision ordinances, including subdivision maps, street size, sidewalk size, sewage disposal, or building permit requirements, or architectural reviews.

In addition, most localities are required to develop general plans. A housing element, found in each plan, is required to be consistent with the overall plan. Consequently, any proposed time sharing project will have to be consistent with the housing element.

Recent Court Cases

As the time sharing industry continues to grow and as more and more governments enact rules and regulations affecting time sharing and condominium use, there are certain to be related court cases. Several cases dealing with issues facing time sharing and condominiums are examined here.

Can condominium associations adopt rules and regulations regarding the use of condominiums and condominium grounds? The answer is yes, providing the rule or regulation is reasonable. This issue has been raised in a number of cases.[28] It is unfortunate that what is considered reasonable in one case may not be in another. Thus, what constitutes a reasonable rule or regulation must be decided on a case by case basis.

White Egret Condominium v. Franklin[29] dealt with a situation where an individual purchased a condominium and conveyed one half interest in it to his brother and family. The condominium association believed that the arrangement would violate a condominium restriction which did not allow children under 12 years of age to reside in the units. Moreover, the condominium association felt that the two brothers and their families would violate the single-family use restriction. The basic issues facing the court were whether the condominium association could place restrictions on the inhabitants and uses of the condominium and whether these restrictions were reasonable.

The Supreme Court of Florida held that a condominium restriction could be enforced if it served a legitimate purpose and was reasonably applied.[30] In this case, the restrictions were arbitrary, unreasonable and selectively applied. For example, there were children under 12 years of age residing in other units. Furthermore, the Court held that "age restrictions cannot be used to reasonably or arbitrarily restrict certain classes of individuals from obtaining desirable housing."[31] Concerning the single-family residence issue, the Court concluded that since only one brother and his family would reside in the condominium at a time, this would constitute a single-family use.[32]

Cal-Am Corporation v. Department of Real Estate[33] represents an important time sharing case in California. Cal-Am sold membership interests in approximately 154 units of a 385 condominium resort which entitled members to the use of a one-bedroom condominium unit at the Royal Kuhio Building, Honolulu, Hawaii, for one or more weeks each year until December 31, 2041.[34] In essence, it established a time sharing program.

Two issues had to be decided in this case. First of all, did the membership interests being sold constitute the sale or lease of an interest in a subdivision or subdivided lands as defined by California law? Secondly, did the California Department of Real Estate have jurisdictional authority to regulate the sale of time share interests in resort condominiums? The California Court of Appeals for the Second District held that the sale of membership interests in the use of resort condominium units constituted a sale

or lease of interest in a "subdivision or subdivided lands" and, as such, was within the jurisdictional authority of the California Department of Real Estate.[35] Thus, the Department assumed the authority to develop rules and regulations concerning time sharing.

Laguna Royale Owners Association v. *Darger*[36] contained several issues found in time sharing controversies. This case dealt with a leasehold condominium owner trying to assign interests in his condominium to three different parties. Darger owned a condominium in an estate containing 78 units. In other words, he owned a 1/78 interest in the estate. Due to heavy work responsibilities, which he assumed after purchasing the condominium, Darger, who resided in Salt Lake City, Utah, was unable to utilize his condominium to any great extent.

Faced with the fact that he and his family would not be able to take full advantage of their condominium, Darger decided to sell shares in his unit. He wrote to the Laguna Royale Owners Association and advised them of his intentions. He noted that the new individuals were advised of all rules and regulations. He proceeded to state that not more than one family would use the unit at any one time.

The Laguna Royale Owners Association went to its attorney for a legal opinion on Darger's letter. In his letter, the attorney for the association stated:

> It is my opinion that if such parties otherwise qualified indicate no intended use of the apartment other than single-family owner's use, there would be no legal basis to refuse such transfers. However, state law restricts more than four transfers of undivided interests, without qualifying as a subdivision.[37]

He went on to state that some members of the association's Board of Governors voiced their concerns that multiple ownership would adversely affect the other Laguna Royale owners.

Darger continued his plan to sell interests in his condominium. After meeting with the association's Board of Governors and being advised of a violation of California's subdivision laws regarding the transfer of undivided interests, Darger reduced the total number of owners to four in order to adhere to state law. This did not satisfy the association. In a subsequent letter from the association's attorney, Darger was informed that his transfer:

> would create and impose an undue, unreasonable burden and disadvantage on the other owners and residents' enjoyment of their apartments and the common facilities . . . contrary and in conflict with the close community living nature of Laguna Royale and would be contrary to the single-family character of the private residential purpose to which all apartments are restricted.[38]

Darger proceeded to file a formal letter with the association requesting approval to transfer the unit to three other individuals and himself. He asked the association to specify the reasons for refusal should it deny his request. In yet another letter, the association held:

> it is obligated to protect and preserve the private single-family residential character of Laguna Royale, together with the use and quiet enjoyment of all apartment owners of their respective apartments and the common facilities, taking into consideration the close community living circumstances of Laguna Royale.[39]

Moreover, concerns for complex security and general quality of life had to be considered. Darger was advised that:

> four family ownership . . . would compound the use of the apartment and common facilities well beyond the normal and usual private single-family residential character to the detriment of other owners and would frustrate effective controls over general security, guest occupants and rule compliance.[40]

Darger continued his efforts to sell interests in his property by executing agreements with the various parties. As a result of his actions, the association filed an action seeking a declaration that the assignments were invalid. The Superior Court, Orange County, ruled in favor of the association.

On an appeal, the Court of Appeals in the Fourth District had to determine whether the association had acted in a reasonable manner in reaching its decision. The association asserted that it wasn't required to adhere to a standard of reasonableness but could withhold approval or consent for any reason or for no reason at all.[41] The Court of Appeals was not persuaded by this assertion and noted:

> in exercising its power to approve or disapprove transfers or assignments, the association must act reasonably, exercising its power in a fair and nondiscriminatory manner and withholding approval only for a reason or reasons rationally related to the protection, preservation and proper operation of the property and the purposes of the association.[42]

The association gave three reasons for denying Darger's request:

1) Multiple ownership of undivided interests,
2) Use proposed would violate a bylaw restricting use of all apartments to single-family residential use,
3) Use would be inconsistent with private single-family residential character.[43]

The court was not persuaded by the association's rationale. First of all, multiple ownership does not necessarily denote intensive use.[44] After all, any number of people could own interests in a condominium and lease it to one person on a long-term basis. Secondly, no evidence was presented which proved that the defendants proposed to use the property for anything other than single-family purposes.[45] Finally, it was established that only one family at a time would reside in the condominium.[46] As a result, the association's action was unreasonable.

The court's verdict was not unanimous. Presiding Justice Gardner issued a short dissenting opinion focusing on the

potential spillover effects of time sharing. He felt that the association acted in a reasonable manner. Labeling time sharing as a gimmick, he questioned who would benefit from such a situation. Justice Gardner went on to observe that time sharing "ordinarily brings enormous profits to the seller and in this case would bring chaos to the other residents."[47] He proceeded to question where the whole process of conveying transfers would stop. According to him, "only greed would prohibit the occupant from conveying to 52 or 365 other occupants."[48]

The Future

Time sharing has become an established and profitable industry. Time share projects are continuing to surface throughout the United States and the rest of the world. As the different levels of government impose rules and regulations which directly or indirectly affect time sharing, the number of legal cases focusing on some aspect of time sharing is bound to grow. However, time share developers must not fear close scrutiny from the different levels of government. As Bloch so rightfully noted:

> The developer who creates a financially sound, well-managed timesharing program, and who provides adequate protection to his purchasers as well as careful and complete disclosure of the terms and conditions involved, need not fear regulation: his house will be in order. It normally is abuses, or the results of abuses, which prompt stringent regulatory action. Evidence of unacceptable business practice is easily discovered.[49]

Overall, controversies involving time sharing or some specific aspect of time sharing are bound to continue. Only time will tell what shape these controversies will take. Nevertheless, we must continue to enact rules and regulations which protect the time share developer, time share purchaser, and neighboring parties.

NOTES

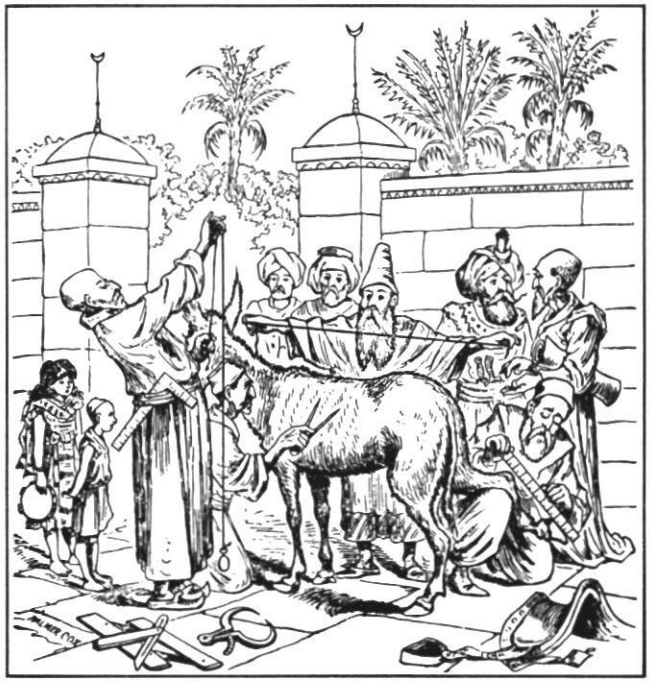
1. Christopher W. Hart and Sara Pfrommer, "Financing the Time-Share Project," *The Real Estate Securities Journal* 4 (Winter 1983), 27.
2. Stephany A. Madsen, "Urban Timesharing," *Urban Land* 42 (February 1983), 14-20.
3. *Ibid.*, 14.
4. Lynn Langway et al., "Guaranteed Getaways," *Newsweek* 94 (December 17, 1979), 104.
5. Jeremy D. Smith, "Urban Time-Sharing: A Major Growth Area," *Real Estate Review* 12 (Summer 1982), 69.
6. Stuart Marshall Bloch, "Regulation of Timesharing," *Journal of Urban Law* 60 (Fall 1982), 23.
7. 15 U.S.C. Sections 1701-1720 (1976 and Supp. IV 1980).
8. *Ibid.*, Section 1703(a)(1)(A).
9. 15 U.S.C. Sections 41-58 (1973).
10. *Ibid.*, Section 45(a)(6).
11. As noted in *real estate today*® 16 (February 1983), 21.
12. For example, see, VA. CODE Sections 55-360 to 400 (1981) and Hawaii Rev. Stat. Sections 514 E-1 to E-15 (Supp. 1981).
13. For example, Colorado has a statute creating fee sharing, which was enacted in 1977 as part of the Condominium Ownership Act, Colo. Rev. Stat., Title 38, Art. 33; also see, James R. Martin, "Timesharing in Colorado," *The Colorado Lawyer* 11 (November 1982), 2804-2810; see, the Utah Code Ann. Tit. 57, Ch. 8.
14. California Business and Professional Code, Section 11003.5(a).
15. *Ibid.*, Section 11003.5(c).
16. 10 California Administrative Code, Section 2810(a)(b)(c).
17. *Ibid.*, Section 2813.1.
18. *Ibid.*, Section 2813.2.
19. *Ibid.*, Section 2813.5.
20. *Ibid.*, Section 2813.7.
21. For example, see, *California Fair Housing Law* (California Health and Safety Code, Sections 35700-35745) and the *Unruh Civil Rights Act* (California Civil Code, Sections 51-52).
22. Maryland Resolution No. 41, Acts of 1977.
23. As described by Gregory A. Stiverson, *Maryland Manual 1981-1982* (Annapolis, Maryland: Department of General Services, 1981), 293.
24. National Conference of Commissioners on Uniform State Laws, *Model Real Estate Time-Share Act*, 7A U.L.A. 247 (West. Supp. 1982).
25. American Land Development Association and National Association of Real Estate License Law Officials, *Model Time-Share Ownership Act* (ALDA/NARELLO, 3d draft, September 1982).
26. For a discussion of URETSA, see, Anthony S. Burek, "Uniform Real Estate Time-Share Act," *Real Property Probate and Trust Journal* 14 (Winter 1979), 683-691, and Patrick J. Rohan and Melvin A. Reskin, *Condominium Law and Practice*, Vol. 1, Part 3: *Real Estate Transactions* (New York: Matthew Bender, 1982), 17c-422.77.
27. Gary B. Burnett, "Today's Boon is Booming," *real estate today*® 16 (February 1983), 23.
28. For example, see, *Hidden Harbour Estates, Inc. v. Norman*, 309 So. 2d 180 (Fla. App. 1975) which concerned a condominium association rule prohibiting the use of alcoholic beverages in the clubhouse and adjacent areas and *Hidden Harbour Estates, Inc. v. Basso*, 393 So. 2d 637 (Fla. App. 1981) which involved a condominium use restriction in drilling a well.
29. 379 So. 2d 346 (Fla., 1979).
30. *Ibid.*, at 350.
31. *Ibid.*, at 351.
32. *Ibid.*, at 352.
33. 163 Cal. Rptr. 729 (Ca. App. 1980).
34. *Ibid.*, at 731.
35. *Ibid.*, at 729.
36. 174 Cal. Rptr. 136 (Ca. App. 1981).
37. *Ibid.*, at 139.
38. *Ibid.*, at 140.
39. *Ibid.*
40. *Ibid.*, at 141.
41. *Ibid.*, at 142.
42. *Ibid.*
43. *Ibid.*, at 145.
44. *Ibid.*
45. *Ibid.*, at 146.
46. *Ibid.*
47. *Ibid.*, at 148.
48. *Ibid.*
49. Bloch, "Regulation of Timesharing," 49.

INTERNATIONAL INCOME PROPERTY INVESTMENT YIELDS AND THEIR MEASUREMENT

by Mary Alice Hines

Many income property investors buy, sell and lease property on an international scale. Their counselors, of course, must give advice on the same scale. They often come from real estate counseling, valuation, brokerage, accounting, management consulting and tax consulting firms.

The international investors tend to represent large sums of capital. Their own countries do not offer enough high-yielding properties for their acquisition, or they prefer to diversify their portfolios to reduce overall portfolio risk; in some cases, the investors are seeking to avoid what they judge to be too much political and governmental risk at home. Capital preservation calls for investment outside the country of domicile. In addition, the income properties of the country of domicile may not exhibit enough domestic business and industrial growth to offer sufficient capital gains possibilities in the near future.



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Recent International Income Property Investment Trends

The worldwide recession from 1969 through 1982 brought with it a large investor sell-off of portfolio holdings, declining property values from relatively stringent mortgage terms, investor acquisition of "bargain" properties, investment in real estate company stock across national borders, extensive rehabilitation of existing structures, and reduced income property development. Some examples follow.

The largest British life insurance company and one of the largest U.S. life insurance companies have been selling off many of their income properties for various reasons. The sell-offs have given liquidity to the life insurance companies so that they could pursue alternative investments in the rapidly rising stock markets in the international capitals.

The sell-offs have also resulted in pension fund liquidity since these large life insurance companies have actively managed large sums for various pension funds in recent years. Due to the persistence of a worldwide recession, some of these pension funds have asked for the return of their capital. Also, with the encouragement of early retirements to counteract high operating costs during sales and profit slumps, pension funds have faced more cash disbursement demands.

In the U.S., the values of income properties have declined, generally with shorter term and higher cost income property financing. The equity participation

requirements and the joint venture agreements stipulated by some lenders have created a higher cost of funds. With higher debt and equity costs, net cash flows have declined; decreased property values have resulted in many cases.

At the same time in the U.S., tax shelter opportunities have increased with the passage of the 15-year Accelerated Capital Recovery System for real estate. The rehabilitation tax credits have also benefited real estate investors with significant income tax problems.

International real estate investors have observed declines in income property values due to the recession and have sought bargains in the marketplace. Where they expect measurable income property value growth in recovery years, they look for current prices which will accentuate their future long-term capital gains. Small, medium, and large investors have thought along these same lines in every recession and depression that the world has ever known. Thus, this extended recession has produced the same familiar investment climate.

The decline in housing construction during the recession has brought about speculation in apartment buildings where high occupancy rates may result in rising rents. The office building glut in many large cities has provided some bargain prices for those investors who hold ample capital. Shopping center storeroom space, often vacated by retailers due to bankruptcy or reduced sales, has been purchased or leased for speculative purposes by investors. They have forecasted higher shopping center occupancy and higher rents in good centers with the return of highly profitable retailing conditions during the recovery stage of the economic cycle.

As stock markets around the world go about describing peak levels of security prices, those investors who wish to purchase more securities in order to realize the promised short-term capital gains have found that the sale of real property holdings would be advantageous. Short-term liquidity and capital gains may be preferred to longer-term operating profits and capital gains. Due to recent stock market conditions, short-term realized profits may be preferred to longer-term "paper" profits.

Real estate holdings normally fit into the investor's portfolio along with stock, bond, and other investments. Portfolio changes are considered on an ongoing basis, and decisions are made. The U.S. stock market is still reaching new highs each day in terms of the Dow Jones Industrial average. Investors need to make portfolio changes in order to fit their investment objectives.

Mergers and the acquisition of companies involved in international income property investment have occurred due to the recession. Portions of the stock of income property development companies have been acquired by foreign real estate investment companies. For example, the majority interest in Ernst Hahn & Associates, a California-based development firm, and a minority interest in The Rouse Company, a Baltimore-based development company, have been purchased recently by large Canadian development companies.

As real estate brokerage firms have consolidated and closed selected branches, development firms have consolidated on an international scale. The formation of larger international development companies has tended to counteract the increased development competition from institutional investors. Many institutional investors in the past have sat back and financed the various kinds of mortgage debt and leases associated with land development. Recently, many of the large investors have created their own development staffs, directly competing with companies specializing in land development. Now, to some extent, there is more balance between the power of the developers and that of the institutions. Changes in competition usually bring about changes in institutional forms and financing methods.

As construction costs have risen and good sites for profitable new buildings have disappeared in the recessionary period, many investors have renovated existing premises instead of constructing new premises for investment return. Income property rehabilitation may mean higher rents and lower operating costs after it is completed. The value of the existing building may increase with the minimal investment in renovation and modernization. Some tax codes and building regulations have encouraged rehabbing over new construction in recent years. Historic structures may be preserved and still generate income through the rehabilitation process. Sometimes renovation merely saves the historic facade and some of the building shell, while the rest of the historic building is gutted for new partitions, equipment, and energy conservation heating and ventilating systems. Extensive structural rehabilitation continues to occur in Paris, Amsterdam, Edinburgh, London, Heidelberg, and Rome as well as U.S. urban centers.

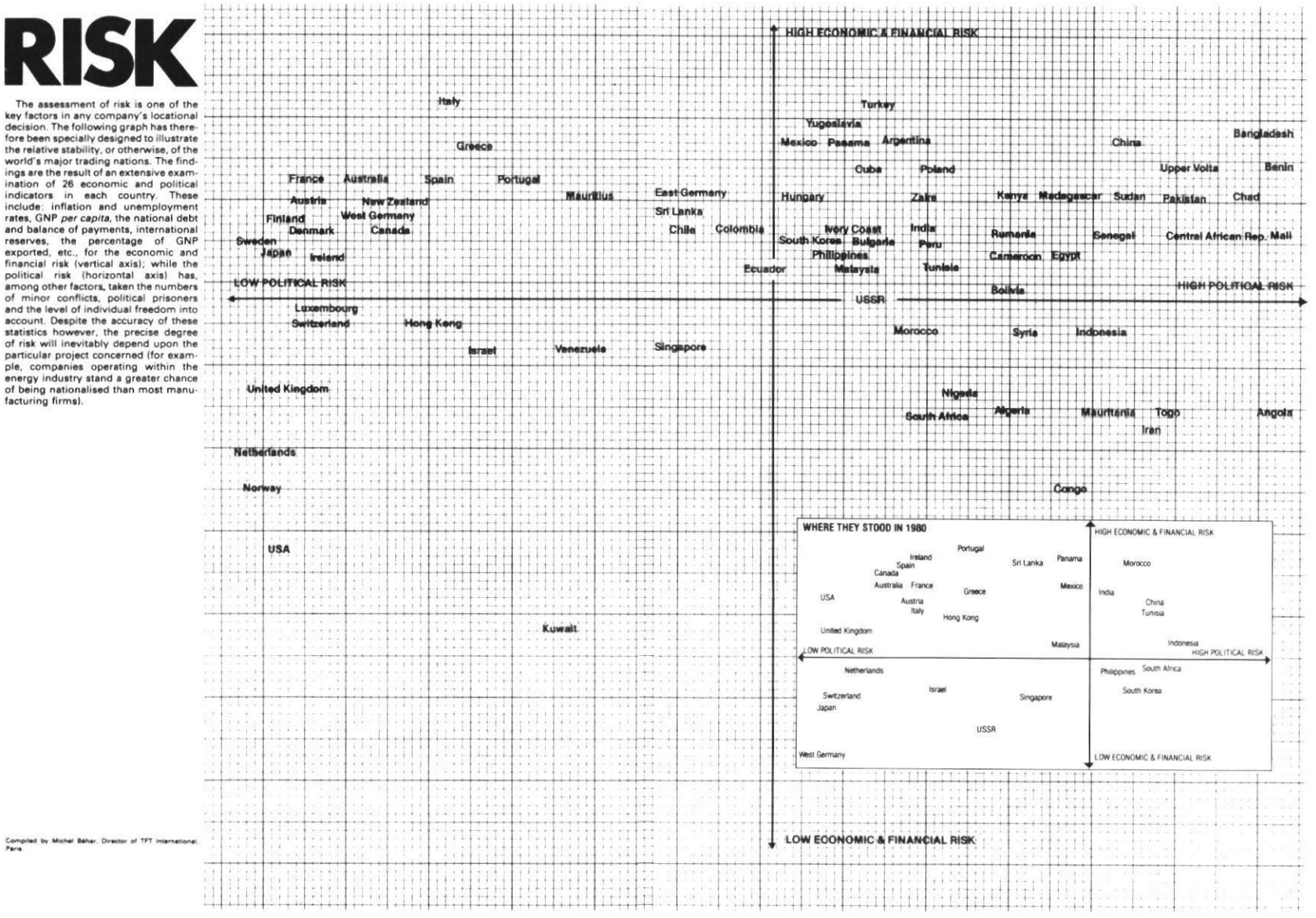
Trends In Investment Yields, Risks, And Building Costs

As the cost of borrowed money rose during the recession of the early 1980s, property investment yields rose also. The cost of borrowed money has risen with inflation. Since the rate of inflation is related to the productivity and the monetary and fiscal policies of the particular country, national rates of inflation during the early '80s have varied widely. For example, inflation rates in Israel and Brazil are over 100 percent a year while inflation rates in the U.S. and West Germany are approximately 5 to 6 percent. The rate of inflation in France has been running around 24 percent a year.

Part of the rise in yields has been associated with the greater overall risk reflected from the international markets. Michael Behar of TFT International of Paris compiled a visual analysis describing the risk dimensions of various countries with respect to the key factors in industrial location decision making (see Table 1). The 1983 risk measurements compared to those in 1980 show an increased overall risk on economic, financial and political bases. For example, many countries moved from the northwest quadrant that reflected high economic and financial and low political risk to the northeast quadrant

TABLE 1

Locational Risk Comparisons



Source: *The Annual Investment File*, Vol. VII (May 1983), 104-105. Published by Urban Publishing Co., 17 The Green, Richmond, Surrey, TW9 1PX, England.

that reflected high economic, financial, and political risk. Investment yields resulting from locational decisions should be higher according to traditional financial thought, in order to compensate for the higher investment risks.

Income property yields change over time within a single country. The yield performance figures for income-producing properties in France, that was drawn up by the London firm of Weatherall Green & Smith, show increasing yields for office, retail, and warehouse properties from December 1980 through March 1983 (see Table 2). In general, provincial property yields are higher than yields from comparable properties located in Parisian suburbs or central Paris. Yields are lowest in income properties in central Paris, regardless of the time period shown in Table 2. In 1983 central Paris rents have been higher than rents from comparable properties in provincial cities of France (see Table 3).

From Tables 3 and 4 one may view "property market indicators" for a number of countries and a number of urban centers within each country. Office prime yields were highest in Italy in early 1983. Retail property yields were highest in France and Spain (see Table 4). At the same time, the industrial property yields were highest in Holland, the U.S., and France. The highest office and retail rent per square foot was estimated in New York. The highest industrial building rent per square foot was located in Zurich, Switzerland. Since it is difficult to make yield, cost, and rental comparisons due to market, measurement, building and location differences, these comparisons should not be granted the aura of absolute accuracy, but should be seen as the expressed opinion of two of the well-recognized international real estate consulting and brokerage firms.

TABLE 2

Yield Rate Performance for France

	December 1980 %	March 1982 %	March 1983 %
Offices			
Central Paris	6.00-7.00	6.50- 7.50	6.25- 7.25
Paris suburbs	7.75-8.00	8.75- 9.75	8.50- 9.50
Provinces	8.50-9.00	9.50-10.25	9.50-10.50
Shops			
Central Paris	7.00-8.00	8.00- 9.00	8.00- 8.50
Paris suburbs	7.00-8.00	8.00- 9.00	8.50-10.50
Provinces	8.00-9.00	9.00-10.25	9.25-10.75
Warehousing			
Paris	9.75	10.00	10.00
25 kms from Paris	10.00-10.25	10.25-10.75	10.75-11.25
Provinces	10.50-10.75	11.00-11.50	11.50-12.25

Source: France, *Weatheralls Property Report 1983* (London: Weatherall Green & Smith, 1983), 32.

Reasons That Worldwide Yields Tend To Differ

Quoted yields related to income properties throughout the world differ from each other for a number of reasons. One reason is the multiplicity of formulas and techniques used for real estate investment yield measurement. Other reasons are related to accounting differences and differences in investment perspectives. Some countries view real estate investment as relatively short term, whereas in other countries the majority of income property investors think very long term with buy-and-hold perspectives.

Another reason for the differences in quoted yields in regard to worldwide income properties is derived from the inherent investment differences exhibited by the various types of income properties. For example, properties with indexed or periodically renegotiated leases exhibit less financial risk for the investor than properties that have fixed base leases with investor participation in tenant gross or net income. The yields associated, therefore, with the two types of leased properties may be quite different. Another reason for the differences is the scarcity and oversupply conditions of property in specific markets.

The Multiplicity of Investment Measurement Methods

Using the U.S. income property market as an example, one finds many methods of income property yield measurement. It is traditional for U.S. investors to use the payback, average rate of return on average investment, and the cash-on-cash methods of yield analysis that do not involve the time value of money. Three methods of analysis utilizing the time value of money and increasingly used today are: 1) net present value, 2) profitability index, and 3) internal or discounted rate of return.

Just mentioning a yield for an income property means nothing. The person conveying the yield information and the one receiving it must identify and understand the method used for the quoted yield measurement. Measuring the yield on one income property by the six methods cited here leads to six different numerical responses. Therefore, any quote of investment yield must indicate the method of yield measurement.

Accounting Differences

In the U.S., many investment yields are based on historic costs which may have been incurred some time ago. The accounts for the income property are usually kept on an historic cost basis. Only recently has market value accounting been utilized by a few U.S. firms for investment market quotations and security disclosures. For example, life insurance companies and commercial banks that are selling their investment management services and yield results to prospective pension fund clients tend to keep their property market values current for the year. Otherwise, historic cost accounting is used for other purposes. In contrast, property accounting in England and the rest of Europe, and in other parts of the world, often is based on market value, not historic value or original cost. Therefore, the yield calculations differ measurably.

Differences in Investment Perspectives

When an institutional investor buys a property, the institution may expect to hold the property indefinitely. There may be no reason to expect an early sale in 5, 20, or 60

TABLE 3

Property Market Indicators: Rents per square foot per annum

Country	City	Offices sq. ft.	Shops Unit	Industrials sq. ft.
UK	London	30.00	120,000	3.50
	Birmingham	6.50	52,000	2.20
	Manchester	5.00	35,000	1.90
	Edinburgh	4.50	80,000	1.85
	Glasgow	5.50	67,500	1.85
Belgium	Brussels	3.80	44,000	1.65
	Antwerp	3.30	35,000	1.45
France	Paris	12.40	103,000	2.80
	Lille	3.90	19,500	1.70
	Lyon	4.20	20,000	1.70
	Marseille	4.30	19,500	1.90
Germany	Munich	7.25	65,500	2.15
	Dusseldorf	8.70	65,500	2.30
	Frankfurt	10.20	61,000	2.30
	Hamburg	7.50	57,000	2.20
Holland	Amsterdam	6.60	34,000	2.00
	The Hague	6.00	33,000	2.00
	Rotterdam	5.50	33,000	1.90
Italy	Rome	7.70	23,000	1.30
	Milan	8.60	23,000	2.05
	Turin	5.60	14,000	1.45
Spain	Madrid	7.70	25,500	1.05
	Barcelona	5.60	21,000	0.75
Switzerland	Geneva	12.40	102,000	3.40
	Zurich	17.70	110,000	4.15
USA	New York	27.00	157,000	3.00
	Atlanta	8.80	20,000	1.40
	Boston	17.60	33,000	2.50
	Chicago	14.50	36,000	1.90
	Houston	15.10	28,000	2.20
	Los Angeles	18.20	26,500	2.20
	San Francisco	22.60	94,000	1.90
	Washington, DC	16.30	33,000	2.50
Australia	Sydney	14.30	83,000	2.30
	Melbourne	9.70	78,000	1.90
	Adelaide	5.70	83,000	2.15
	Brisbane	8.00	83,000	2.60
	Perth	9.70	43,000	1.70

1. Offices

Rents are based on first class suites of 5,000 sq. ft. in the principal town(s) and modern schemes in excess of 20,000 sq. ft. with good specification in the provinces.

2. Shops

Rents are based on a standard shop unit having a frontage of 20 ft. and a depth of 60 ft. with storage/staff accommodation of 300 sq. ft. The total area is 1,500 sq. ft. and the unit is situated in the best position in the town.

3. Industrials

Rents are based on single story 15,000 sq. ft. industrial/warehouse units of steel portal frame or concrete construction with an eaves height of at least 18 ft.

4. Rents

Rents are exclusive of rates, service charge and local taxes with the exception of the USA and Australia.

5. Industrial Rents

The industrial rents for Belgium, France, Germany, Holland, Italy, Spain and Switzerland have been weighted as the ancillary office space commands a higher rent than the industrial space. The weighting assumes an office content of 10% of the total area.

Source: International Property Bulletin, March 1983 (London: Hillier Parker May & Rowden), 3.

TABLE 4

Property Market Indicators: Prime Yields and Building Costs

Prime Yields %	UK	Belgium	France	Germany	Holland	Italy	Spain	Switzerland	USA	Australia
Offices	4.75	7.5	7.0	6.0	8.5	7.0	10.0	2.5	9.5	6.5
Shops	3.85	8.5	10.0	5.5	8.5	6.0	10.0	3.5	9.5	7.5
Industrials	7.00	9.5	10.5	8.0	11.0	9.0	12.0	6.0	11.0	9.5
Building Costs										
Offices										
Cost £ sq. ft.	60	26	30	53	37	30	37	52	36	40
Fees as % of building costs	15	15	22.5	15	11	20	20	20	25	16
Shops										
Cost £ sq. ft.	30	21	21	48	24	26	28	31	23	16
Fees as % of building costs	12.5	15	22.5	15	11	20	20	20	25	16
Industrials										
Cost £ sq. ft.	15	8	10	16	12	11	16	21	13	13
Fees as % of building costs	10	15	20	12	10	10	20	17	25	16
Cost of finance % p.a.	9	15	17	8	10	24	17	8	15	18
Exclusions: Items excluded from floor space as defined for rental purposes										
Shops/Offices										
Structural walls	X	X	X	X	X	X	X	X	X	X
Stairs	X		X	X	X	X	X	X	X	X
Lifts	X		X	X	X	X	X	X	X	X
Toilets	X									X
Entrance lobby	X	X	X	X	X	X	X	X		X
Industrials										
Structural walls	X	X	X	X	X	X	X	X	X	X
Stairs			X			X	X	X	X	X
Toilets										X

1. Building Cost for Offices

The costs are based on 30,000 sq. ft. self-contained, air-conditioned buildings in the major city in each country. The accommodation is built to a good finish to include false ceilings, carpets, lighting and power points but excluding partitioning.

2. Building Cost for Shops

The costs are based on a standard shop unit of 1,500 sq. ft. built as part of a parade, with either office or residential accommodation above, but not in a major covered shopping center. It is constructed to a shell finish and excludes the shop front.

3. Building Cost for Industrials

The costs are based on a single story unit of 30,000 sq. ft. of steel portal frame or concrete construction with an eaves height of at least 18 ft. It is finished to a basic shell, with services and heating to the 10% office space but not to the industrial/warehouse area.

4. UK Cost of Finance

The figure given is based on the assumption of a forward funding by an institutional investor.

5. Prime Yields

Figures given are the net returns received by the investor for prime properties.

Source: International Property Bulletin, March 1983 (London: Hillier Parker May & Rowden), 4.

years, due to tax or cash flow. Therefore, the reversion or resale values often considered by shorter term investors are of no consequence to the institutional investor. If the sale of the acquisition is expected in 50 years, then the present value of the cash flow expected in 50 years will be miniscule using present value tables. The investor concentrates on the operating cash flows to the exclusion of the reversion value. Quite often, the financial institution is not subject to federal income taxation or is subject to far less than regular corporate federal income tax rates.

The taxable investor usually considers the tax impact of operating income and expected reversion values. The approved tax method of recapturing the capital has a bearing on the expected tax consequences of the property acquisition and the expected year of sale. When tax-sheltered income no longer covers principal repayment on the mortgage loan, the income property may be sold. This timing depends on the methods of depreciation permitted by tax authorities for the type of property. (The federal income tax authority in the U.S. is the Internal Revenue Service; in many other countries,

the comparable agency or authority is the Inland Revenue.)

Since the sale of the income property will probably occur in the near future, the reversion value after capital gains tax treatment will be an important part of the investment yield calculation. On a present value basis, a sum of money received from the property sale seven years down the road will have a significant current dollar value.

Differences in Property Investment Characteristics

The various types of income properties have different investment characteristics. Even within a property investment type, leasing contracts may exhibit very different terms. Office building leases, for example, are usually indexed wherever the building is located. The index selected for the lease contract may differ between tenant contracts, buildings, and among the various countries. For example, the index may be the Consumer Price Index (CPI) which is different for France than the same labeled index in Italy, West Germany, or Ireland. Instead of the CPI, the index may be a cost of funds index for a type of financial institution.

Shopping center leases may be either net leases with building owner participation in gross or net income, or they may be indexed or renegotiable every year, every three years, five years, or some other period of time. The reappraisal lease term may cover any time interval.

Apartment leases are usually not indexed but are net leases in regard to utility expenses. Office building and shopping center leases worldwide also tend to be totally net leases. Changes in apartment leases are often subject to rent control regulations whereas changes in office building and shopping center leases are rarely affected by this type of regulation. When commercial rent control is implemented, it usually lasts only for a short time under emergency economic conditions, such as in England in the early 1980s when inflation in office rents was considered excessive. Commercial rent control exists today in a few U.S. cities; its spread does not appear probable.

The lease contract may be peculiar to the tenant of the building. The landlord and the tenant often negotiate the terms of the individual lease. The landlord-tenant negotiation may bring about lease differences between buildings of comparable land-use in similar locations.

Demand and Supply Differences in the Various Income Property Markets

If government planning authorities and land-use regulators have a tight hold on the income property market, rents and the cost of building operation and construction may differ from revenues and the cost of building operation and construction in areas where government land-use controls are less formidable. For example, due to construction quality control standards in West Germany, income property construction costs are higher than they are in less regulated areas. The French government closely controls commercial rents on the grounds of consumer equity. Constant lawsuits brought by tenants have resulted in rent reductions and adjustments to what would be dictated by indexing formulae in the leases. Since the building tenant in France may acquire tenure rights after nine years of occupancy, rents may not rise as rapidly as operating costs which are subject to little control. Housing tenure is a housing demand and supply dimension in the United Kingdom just as commercial tenure is a commercial investment dimension in France.

If the government holds a strong planning and regulatory control over property development, the supply of new commercial space may be held back due to a lack of government approval. The scarcity of commercial space tends to drive rents up for existing space. If suburban development is not allowed, then the inner city commercial space may be more densely used, resulting in the rehabilitation of existing buildings and addition of higher floors. The investment return on monies invested in building renovation and rebuilding are often significant. Many investors feel that the rehabilitation of existing shopping centers, office buildings, apartment buildings, and industrial buildings is advantageous.

If the government owns a lot of land in valuable downtown locations, the ground rent may be subsidized with respect to normal private ground lease provisions. The government may establish ground rents to encourage various types of development and redevelopment. Thus, differing land costs and rents affect yield measurements.

Yields With Respect To Worldwide Economic Conditions: Prospects For The Future

Yield Measurement Methods

A number of methods for real estate investment yield measurement exist today and more are sure to be explored in the future. Regardless of the methods in use, any indications of achieved investment yields should indicate the method of yield measurement. For example, the methods of yield measurement in Tables 2 and 4 are not mentioned anywhere in the illustration. One may ask, then, how meaningful are the indicated yields? Also, may the reader's yields from personal or business real estate investments be compared to the table yields? The answer is that valid comparisons can be made if the same measurement techniques and methods are used by both the researcher and the reader.

Computer Use

More and more real estate firms throughout the world use computers for investment analysis. Computer calculations can be done quickly, and yields may be calculated by using a number of investment yield methods. More investment yield information will be made available in the future "information explosion."

Comprehensive International Data Banks

Each year more investors and consultants analyze worldwide investment data and many of them have established a basis for this valuable data bank.

Income-Expense Conditions

Income property yields change according to the world-wide economic conditions. Income property income and associated expenses fluctuate with the economic cycle experienced throughout the world. Of course, the severity of the recession or the pervasiveness of economic prosperity depend upon which country is operating in the international sphere of business. Each country reflects its overall state of the economy even though most nations are affected by the status of international trade and money flows.

Generally, the international real estate data banks will indicate the squeeze between income-property income and expenses during recessions and the widening of the profit differential between income and expenses during prosperous business periods. The yield picture tends to change over time depending upon the state of the world economy and that of the economy of the particular country where the income property is located. Political, economic, and financial changes affect the profitability of individual income properties throughout the world.

TRENDS AFFECTING THE PLANNING AND DESIGN OF PARKING FACILITIES

by Donald M. O'Hara and Gerald E. Lindgren

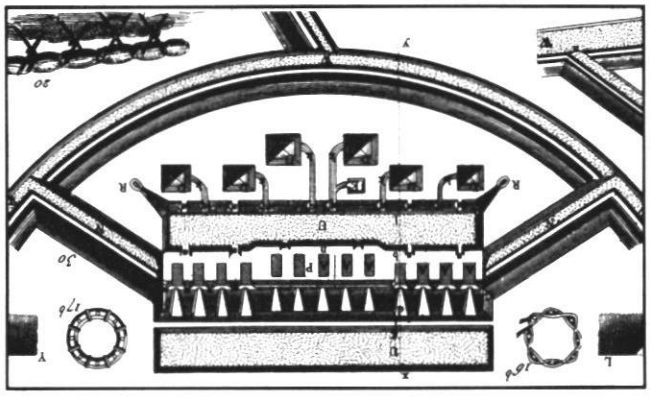
Over the last decade, significant changes in transportation, including the energy crisis, smaller vehicles, and the cost of traveling by private vehicle, have affected the planning and design of parking facilities. Construction and financing costs have made it necessary to develop realistic parking standards based on current trends. These standards should satisfy the requirements of communities as well as land developers.

One way to develop more realistic parking standards is to identify trends and interpret them in order to establish guidelines for planning and designing facilities. Over the past three and a half years, Barton-Aschman Associates, Inc. has conducted a number of surveys designed to document trends affecting the planning and design of parking facilities. These surveys involved parking analyses of various types of developments including mixed-use combinations, video camera surveillance of the ways in which people park in facilities with different parking stall dimensions, and studies of parking facility operations.

The surveys indicated at least three major trends:

1) The automotive industry is manufacturing smaller, lighter, and more energy efficient vehicles.
2) Changes in the demand for parking space have occurred at most land-uses over the last decade.
3) An increasing number of developments involve certain combinations of land-uses, which significantly affect the number of parking spaces required.

While data on the number of vehicles produced and sold are available and have been used in the past to determine



automotive trends, Barton-Aschman felt that a better barometer would be to survey major parking facilities. The surveys were conducted at various office developments and two regional shopping centers located in the suburban metropolitan area of Chicago. The data gathered described the make, model and year of the parked vehicles.

The resulting breakdown by group class is shown in the table. The data suggest that the size of parking stalls can be reduced. In order to determine if the "downsizing" of parking spaces is practical, data from an on-going study of a major regional shopping center located in a southwest suburb of Chicago were utilized.

The local community and the developer of the property allowed three prime parking bays to be restriped as follows: one full bay of stalls eight feet wide, one full bay of eight-foot three-inch stalls, one full bay of eight-foot six-inch stalls, and the remaining bays at the nine-foot stall width, which is in accordance with the local zoning codes. No signs were posted to indicate that the research bays were smaller than the normal nine-foot stalls. Also hairpin striping (double stripe) was used, maintaining the same vehicle parking area of six feet six inches for each of the stalls.

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TABLE

Vehicle Classification

Vehicle Type	Land-Use			
	Retail		Office	
Compact cars	34%	(4,321)	49%	(1,882)
Intermediate cars	44%	(5,620)	38%	(1,460)
Full size cars	22%	(2,756)	13%	(499)
Totals	100%	(12,697)	100%	(3,841)

The data gathered from this survey are vehicle-type by class (standard, mid-size, or compact), the number of maneuvers a driver needs to park and unpark the vehicle, the ease with which persons could enter and exit the vehicle, and how the vehicle was parked within the particular striped parking stall.

The evaluation of drivers who parked their vehicles within the various stall widths provided enough information for a recommendation on the appropriate stall widths to be used for high turnover developments. Based on a review of the video recorded data, stall widths of nine feet and eight feet six inches will allow all drivers to park and unpark a vehicle within the striped stall with sufficient space between vehicles to enter or exit easily.

Because of the relatively small differences in observations for the nine-foot and eight-foot six-inch widths, Barton-Aschman recommends that eight feet six inches be used to provide optimum space utilization. Stall widths of less than eight feet six inches are not appropriate for high turnover parking. However, both of the smaller stall widths would be appropriate for low turnover (employee) type parking areas.

As a result of development trends, land-uses are being combined in ways that significantly affect the number of parking spaces needed. Because of different time patterns for activities or synergistic relationships between land-uses, the number of spaces required by combined development projects can be significantly less than would be required if the facilities were developed individually. This change needs to be reflected in parking standards. The capital cost implications are substantial. Operational strategies to make shared parking work in a practical sense are also needed.

Summary

The surveys and analyses of Barton-Aschman over the past decade have revealed some definite trends affecting the planning and design of parking facilities. Results of these studies support the need for some major revisions in current parking requirements with respect to:

1) *Parking space size* as it relates to specific users such as employees and patrons can be reduced.
2) *Unit parking demands* for most land-uses are less than those generally accepted by lenders and zoning officials, although there appears to be no consensus of zoning requirements.
3) *Shared parking* offers a definite potential for further reduction in both parking space area and cost.

ECONOMIC IMPACT OF CURRENT PARKING STANDARDS ON OFFICE DEVELOPMENTS

by Neil S. Kenig

In today's economic climate, at a time when residential and retail development has slowed considerably, office development is booming. The high costs of construction and financing have made it necessary more than ever to increase the cost-effectiveness of transportation facilities especially in the area of parking space.

However, a significant economic impact is created by the disparity between the actual need for office parking space and the parking requirements established not only by the communities but by the lenders who finance the projects. Current requirements established by many communities and lenders average four parking spaces per 1,000 square feet of gross floor space.

Extensive research and the author's 25 years of practical traffic and parking consulting experience indicate a strong justification for reducing most office parking requirements. Unnecessarily high requirements place an unfair economic burden on developers, which in some cases can reduce the feasibility of the project to a point where the opportunity for development is lost.

Current Zoning Ordinance Parking Requirements

The various requirements for parking currently specified in many zoning ordinances throughout the country designate the problem confronted by site planners, developers, and traffic engineers. An examination of more than 100 ordinances revealed 27 different methods of calculating office parking requirements. In 20 percent of the ordinances there were no specific requirements.

The relatively low office parking requirements in communities such as Chicago, Detroit, Philadelphia, and Pittsburgh are due to the recognition of transit factors. Some of the communities with extremely high requirements are using these requirements to discourage development or at least to maintain control when variances may be sought. Another stumbling block in the development of reasonable office parking requirements is the lender. By and large, one parking space for each 250 square feet of floor area is required. This figure falls in the high range for parking requirements.

In the ideal situation, zoning requirements would be based on local studies of the actual demand for parking space at each type of land-use.

Recommended Parking Space Supply

In order to establish a standard for parking space requirements, it was necessary to update earlier studies of freestanding suburban office developments. Studies were conducted at developments which had little or no transit service or vanpooling and were not substantially affected by traffic factors or parking fees. Peak hours of auto accumulation as well as the occupied gross floor area at the time of each study were determined by on-site surveys.

Several samples at a number of buildings were taken in the morning and afternoon throughout the week to determine any significant variations. Over 130 samples,

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corresponding to more than 17,000,000 square feet of floor area and representing over 45,000 parked vehicles, were obtained to determine a recommended parking supply for suburban office developments.

Based on the results of these studies, a parking requirement of three spaces per 1,000 square feet of gross floor area is recommended as a general parking standard. It is recognized that on occasion this figure might be exceeded. Based on extensive surveys, however, it was exceeded only a few times. In fact, except for one of the major survey inputs at a governmental office building which had a number of carpool vehicles in the lot, the three-space ratio would not have been exceeded.

Economic Implications

The cost of constructing parking facilities is skyrocketing. Recent estimates indicate that the cost of providing a parking space in a well-designed surface lot can be as much as $2,000. Of even more significance is the cost of above-grade structured parking which ranges between $4,500 and $7,000 for an average space of 300 to 350 square feet. The table illustrates the possible costs of providing parking space for a 150,000-square-foot office building. It is assumed that the cost would be $2,000 per surface space and $5,000 per structured space, exclusive of land cost. These estimates can be increased or decreased for a specific situation.

TABLE

Parking Requirements	Spaces	Surface Lot Cost	Parking Structure Cost
5.0 spaces per 1,000 sq.ft.	750	$1,500,000	$3,750,000
4.0 spaces per 1,000 sq.ft.	600	1,200,000	3,000,000
3.33 spaces per 1,000 sq.ft.	500	1,000,000	2,500,000
Recommended			
3.0 spaces per 1,000 sq.ft.	450	900,000	2,250,000
2.5 spaces per 1,000 sq.ft.	375	750,000	1,875,000
2.0 spaces per 1,000 sq.ft.	300	600,000	1,500,000

The economic effect of obtaining variances or ordinance changes regarding parking design standards (stall widths and lengths as well as compact car recognition) can sometimes be as dramatic as the reductions obtained in the number of parking spaces required for the ordinance. The combination of both factors can mean the difference between an economically viable project and one that may not succeed.

Some common parking standards today involve 10- by 20-foot and nine- by 20-foot parking stalls. Based on downsizing of cars and an appropriate percentage of compact cars, the following dimensions are recommended for the relatively low turnover of office employee parking:

Standard size cars — 8.5 feet by 17 feet
Compact cars — 7.5 feet by 15 feet
Compact percentage — minimum of 40 percent

Stalls of these dimensions, in comparison to nine by 20-foot stalls, could result in a reduction in parking facility area greater than 15 percent. For the hypothetical case of a 150,000-square-foot building and a parking requirement of 450 spaces, a cost savings of $130,000 for a surface lot and up to $340,000 for a parking structure is possible with a change in design standards.

Summary

As indicated previously, it is evident that a majority of the existing parking ordinances are obsolete. The increasing cost of adhering to these ordinances may cause a developer to pass up an opportunity to develop in a particular community. At the other extreme is the parking ordinance that is too lenient.

Major parking problems can be expected to occur in a community, and this may result in the adoption of a parking space requirement that is higher than actually needed. Therefore, it is important that a realistic parking ordinance be considered.

Findings here indicate that parking space demands at suburban office developments are less than three spaces per 1,000 square feet of floor area. In order to accommodate additional volumes, a ratio of three parking spaces per 1,000 square feet of floor area is recommended. In addition, parking design standards should be reviewed and brought into conformance with current vehicle sizes. It is felt that these actions can result in substantial development cost savings.

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