Korpacz

REAL ESTATE INVESTOR SURVEY

SECOND QUARTER, 1999 • VOLUME 12 • NUMBER 2

Making News This Quarter

PRICEWATERHOUSECOOPERS

See pages 33-36 for the PricewaterhouseCoopers LLP National Land Market Report

National Highlights

Real Estate Market on a Roll, No Downturn in Sight

This is as good as it gets. Real estate fundamentals are better than they have been in years. Demand for space is strong. Rents are rising. With few exceptions, construction is at reasonable levels. Investors are interested in acquisitions, and buyers and sellers are generally in accord on pricing. In the financing market, interest rates are stable, and if they do go up, the probability is that they will not increase dramatically. Only good times are evident as far as even the most seasoned real estate eye can see.

The current optimism is widespread among investors. Still, even the most upbeat are squinting toward the horizon, searching for dark clouds that could shift the winds of fortune in a market known for its ups and downs. Within the real estate economy, only unbridled development funded by unrestrained lenders could reverse the gains of the past five years. While this is a condition to be feared, there is no evidence at present that it will evolve very soon. Full 100% financing on new development projects in which the developer has no equity is a phenomenon of the past. Joint ventures are prevalent, but today's investors are much more conservative in their expectations. They want to be sure their partners have a stake in the downside as well as the upside.

With real estate so solid, a sharp downturn in the near future would have to come from a big hit to the general economy. A recession could change the picture; but to date, a deep recession is not forecast, even though the current cycle is near to breaking records for longevity. Investors are bullish on the economy, which keeps clicking on all cylinders. They are confident that it can continue to shake off events that threaten to weaken its resilience.

A persistent worry is a stock market crash. "That could be disastrous because perception is so important," says one participant. "If that happened, everyone would get scared and the whole economy could unravel."

Transaction activity has picked up from the lull in the first quarter, although it is not at the level that it was at this time last year. Many participants expect their acquisitions activity to be slower this year than it has been in the past few years. Most REITs are still out of the market, leaving the way clear for private buyers, pension funds and wealthy individuals, as well as partnerships. The majority of foreign investors are European, especially German entities. Although in the past most German investors were interested in property east of the Mississippi River, of late they have branched out and are fairly significant buyers in Texas and on the West Coast.

The international marketplace is becoming increasingly attractive. The huge investable universe outside the United States offers opportunities for diversification and rewards that are commensurate with the high risk. Geographic interest nearly spans the globe, from Asia to Europe to Latin America. Property investments are the greatest draw in Europe, while in Asia investors are buying both individual assets and companies. International real estate investment is more difficult than in the United States, if only because the kind of standardized information that is the norm here is not available in most foreign countries.

PUBLIC MARKET TRENDS

The majority of REITs remain on the sidelines and are seldom contenders for property these days. In fact, many market watchers expect that REITs are likely to go strongly into a sell mode. They will sell some of the properties they bought earlier in this real estate cycle and hold the ones in their portfolios that are most compatible with their overall strategies. Likely targets for disposition are properties in markets where a REIT does not have a substantial presence.

For the most part, REITs are "sticking to their knitting" and focusing on managing their properties. In addition, some are active in development. Those that do not have the capital to move forward on their own are finding partners, either private developers or institutional investors in joint ventures.

Internal opportunities will constitute the primary avenue of growth, at least in the near term, say 37% of publicly traded real estate CEOs, in a recent survey conducted by the National Association of Real Estate Investment Trusts (NAREIT). This is followed by acquisitions (34%), mergers (16%), and joint ventures (13%).

With such a great percentage of regional malls in public ownership, their REIT owners are obviously interested in tapping into the internet shopping trend. Taubman Centers Inc. recently invested $5.8 million in a virtual mall, Fashionmall.com. This raises the issue of businesses in which REITs may invest. By law, REITs are required to keep 75% of their holdings in real estate. Taubman's current investment in the e-commerce company is not a large enough portion of its portfolio to cause a problem, but how shopping center REITs participate in online shopping is an important point to watch.

Merger activity in the REIT industry is a trend that is expected to heat up over the next five years. More than seven out of ten of the polled REIT CEOs (71.0%) anticipate that their companies will be involved in a public-to-public merger by the year 2004. The most likely candidates for merger are thought to be apartment REITs.

The REIT industry is working to restore investor enthusiasm for its stock. At the same time, many of its executives are buying stock in their own companies. Prudential Securities reported an increase in insider buying during April.

Total REIT industry market capitalization turned upward in April. As of April 30, 1999, the marker was $144.87 billion, up $13.54 billion (10.31%) from the month before. This is an 8.99% decrease from one year earlier. As of December 31, 1998, total market capitalization was $138.3 billion. This is a 13.52% decrease from the June 30, 1998, peak of $159.93 billion.

As of April 30, 1999, the amount of capital raised through initial public offerings (IPOs), secondary offerings, and unsecured debt was $8.14 billion. This compares with $27.69 billion as of June 30, 1998, and $39.13 billion as of December 31, 1998.

This year, as of April 30, 1999, only two initial public offerings (IPOs) were issued. The total value of them was $292 million. By comparison, in the first five months of 1998, 13 IPOs, totaling more than $1.98 billion, were issued. There were only two more issued by year-end. The total of all 15 was nearly $2.03 billion. In 1997, 26 IPOs were issued; the total was nearly $6.30 billion.

CASH FLOW FORECAST ASSUMPTIONS

Cash flow forecast assumptions this quarter indicate that values are stable in most surveyed markets. The composite average overall cap rate (OAR) is only 1 basis point higher than last quarter's. The average OAR decreased in four markets; the range of decreases is from 2 basis points in the national suburban office market to 16 basis points in the national power center market. The average OAR increased in nine markets. The range is from 1 basis point in the national industrial market to 12 basis points in

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Table 1
Yield Comparisons
APRIL 1, 1999

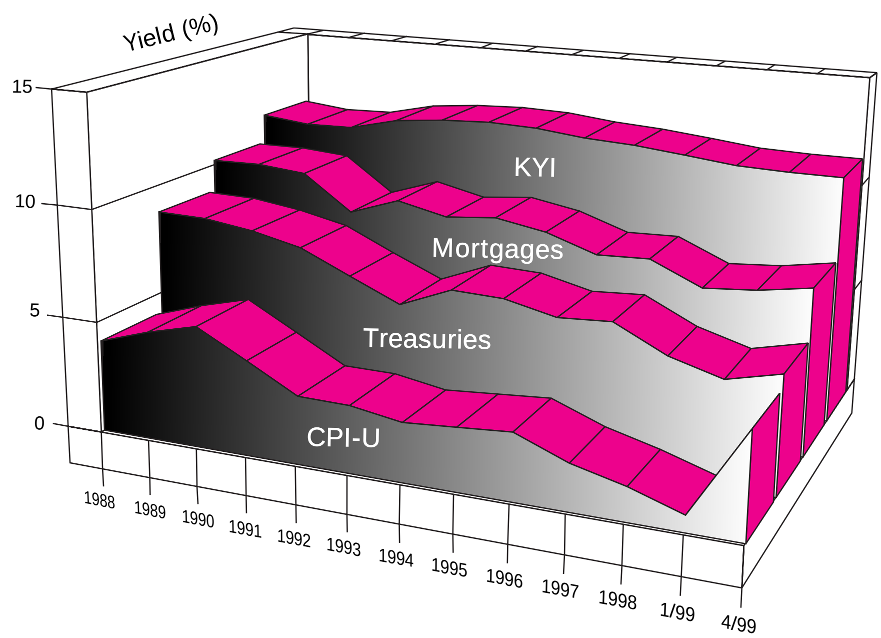
YIELD INDICATORS	1992 AVERAGE	1993 AVERAGE	1994 AVERAGE	1995 AVERAGE	1996 AVERAGE	1997 AVERAGE	1998 AVERAGE	1999 JANUARY	1999 APRIL
Korpacz Yield Indicator (KYI)[a]	12.15%	12.25%	12.18%	11.96%	11.82%	11.59%	11.35%	11.27%	11.29%
Long-Term Mortgages[b]	9.26%	8.76%	9.00%	8.61%	7.86%	7.94%	6.93%	7.14%	7.54%
10-Year Treasuries[c]	6.95%	5.98%	6.92%	6.86%	6.33%	6.48%	5.34%	4.69%	5.27%
Consumer Price Index Change[d]	3.01%	2.99%	2.61%	2.78%	2.96%	2.07%	1.48%	0.73%	4.63%
SPREAD TO KYI (Basis Points)									
Long-Term Mortgages	290	349	317	335	396	366	442	413	375
10-Year Treasuries	520	627	525	510	549	511	602	658	602
Consumer Price Index Change	915	926	957	918	886	952	987	1054	666

a. A composite IRR average of the markets surveyed.
b. 10-year or longer term for commercial and industrial property. Source: Research Department, Appraisal Institute and Federal Reserve; beginning October 1994, Crittenden Publishing, Inc.; compiled by The Korpacz Company, Inc.
c. Source: Federal Reserve.
d. Source: U.S. Department of Commerce; quarterly changes are annualized based on the index change from the prior quarter; the year-end change is based on the index change from the prior-year fourth quarter.

the Houston office market and the Los Angeles office market. There was no change in the four remaining markets.

The average discount rate (IRR) decreased in eight markets; the range is from 1 basis point in the national suburban and national industrial markets to 14 basis points in the Houston office market. The average IRR increased in six markets. The range is from 1 basis point in the national regional mall market markets to 34 basis points in the San Francisco office market. The average IRR remained unchanged in three markets.

Figure 1
Comparative Yields
APRIL 1, 1999



The average initial market rent change rate increased minimally in two markets and decreased in 12. The rate is up 6 basis points in the national regional mall market and 5 basis points in the national power center market. Decreases range from 6 basis points in the Washington, DC office market to 98 basis points in the Los Angeles office market. There was no change in three markets.

YIELD COMPARISONS: Real Estate vs. Alternative Investments

The Korpacz Yield Indicator (KYI) increased 2 basis points to 11.29% (see Table 1). The current rate is 6 basis points lower than the 1998 average. The KYI peaked at 12.29% in fourth quarter 1993. For the most part, it has trended downward in subsequent quarters.

The average long-term mortgage rate is 7.54%. This is 50 basis points higher than the rate last quarter. The average increased 31 basis points last quarter. The current rate is 61 basis points higher than the 1998 average.

The 10-year treasury rate increased 58 basis points to 5.27%. Changes in recent quarters have been small. For example, the shift last quarter was a minor 8-basis-point increase. Consequently, the current rate is only 7 basis points lower than the 1998 average.

The relationship between real estate yields and inflation is noted by comparing yields to the CPI. From January to April, the CPI change rate increased 390 basis points from 0.73% to 4.63% (annualized). The spread between the KYI and CPI change rate is 666 basis points. The CPI jumped 0.7% in April. This is the greatest monthly increase in almost nine years.

The spread between the KYI and long-term mortgage rates decreased 38 basis points to 375 basis points. Last quarter the spread decreased 30 basis points to 413 basis points. The current spread is 67 basis points lower than the 1998 average.

The spread between the KYI and 10-year treasuries decreased 56 basis points to 602 basis points. Last quarter the spread decreased 7 basis points to 658 basis points. The current spread is identical to the 1998 average.

DIVIDEND COMPARISONS: Public vs. Private Markets

REIT dividend yields can be compared with stock dividend yields, although they are not exactly comparable. As Merrill Lynch cautions: "P/E ratios for most companies incorporate measures of earnings after depreciation, whereas REIT earnings are measured as a function of funds from operation (FFO), which basically amount to earnings before depreciation. Adjustments to FFO for recurring capital expenditures still do not result in adjusted FFO (AFFO) measures which are readily comparable to GAAP [generally accepted accounting principles] earnings in other sectors."

The REIT dividend yield is somewhat comparable to the going-in cap rate (OAR) on an all-cash sale. The OAR is the dividend rate a direct real estate investor receives upon a cash purchase of a property. However, caution must be exercised here as well. The Korpacz Dividend Indicator (KDI) is a composite OAR (initial rate of return in an all-cash transaction) average of the 17 commercial markets surveyed (not including the hotel markets). The average annualized equity REIT dividend yield is for all companies, including for example, health care and manufactured homes, which we do not track.

As a result of such differences among dividends for equity REITs, the S&P 500, and OARs, the comparisons are not perfect. However, they do show trends among these three types of investments.

The KDI, average dividend yields for equity REITs, and the S&P 500, as well as spreads between the KDI and the other investments, are set out in Table 2. From 1991 through 1996, the annual average KDI consistently increased. At the same time, the spread between average annual IRRs and OARs consistently decreased. The narrowing spread is indicative of investors' diminished anticipation of both increased income and property appreciation.

In 1997 the annual average KDI decreased slightly. The spread between average IRRs and average OARs narrowed in three quarters of 1997. It widened slightly in all quarters of 1998. This quarter the spread is 217 basis points, a negligible 1 basis point change from last quarter. Since prices are expected to remain stable for the balance of the year, the relationship between average OARs and average IRRs is unlikely to change significantly.

Table 2
Dividend Comparisons
APRIL 1, 1999

DIVIDEND INDICATORS	1992 AVERAGE	1993 AVERAGE	1994 AVERAGE	1995 AVERAGE	1996 AVERAGE	1997 AVERAGE	1998 AVERAGE	1999 JANUARY	1999 APRIL
Korpacz Dividend Indicator (KDI)[a]	9.09%	9.28%	9.29%	9.31%	9.39%	9.35%	9.08%	9.11%	9.12%
Equity REITs[b]	7.53%	6.30%	7.25%	7.75%	7.09%	6.06%	6.01%	7.47%	7.96%
S&P 500[c]	2.97%	2.74%	2.85%	2.41%	2.11%	1.83%	1.57%	1.32%	1.28%
SPREAD TO KDI (Basis Points)									
Equity REITs	156	298	204	156	230	329	307	164	116
S&P 500	612	654	644	690	728	752	751	779	784

a. A composite OAR (initial rate of return in an all-cash transaction) average of the markets surveyed.

b. Source: National Association of Real Estate Investment Trusts; average annualized dividend yield calculated by The Korpacz Company, Inc.; dividend yields are as of he last day of the prior quarter.

c. Source: S&P 500 Analysts' Handbook Office Series–Monthly Supplements; average annual dividend yield calculated by The Korpacz Company, Inc.; dividend yields are quarterly yields as of the last day of the prior quarter.

Average annualized equity REIT dividends have fluctuated considerably during the 1990s, due primarily to fluctuations in their stock prices. By comparison, the average annual S&P 500 pattern has been steadier. It declined from 1991 through 1993, increased in 1994, and declined in each of the next four years. This is, in large measure, due to the dramatic increases in stock prices during 1995 through 1998.

As REIT dividends fluctuated between 1991 and 1996 and the KDI consistently increased, the spread between the KDI and REITs climbed from the 1991 annual average of 38 basis points to the historical high of 382 basis points, reached September 30, 1997. This quarter the spread is 116 basis points a 48-basis-point decrease from last quarter. The average annual spread from 1991 through 1998 is 215 basis points.

Changes in the spread between the KDI and the average S&P 500 from 1991 through 1997 range from a low of 545 basis points in 1991 to this quarter's high of 784 basis points. Last quarter's 779-basis-point spread topped the previous high of 765 basis points, which was reached September 30, 1997. The average annual spread from 1991 through 1998 is 654 basis points.

Average annual real estate dividends, as expressed by the KDI, are higher than REIT dividends and S&P 500 dividends in every year shown in Table 2. The likely reasons that the private market real estate dividends are higher than the public market dividends are (1) the burden of management, and (2) the lack of liquidity in direct private ownership of real estate. In the public market, there is no management burden and the opportunity for liquidity is present daily.

Historically the return on stocks, as represented by the S&P 500, has been considerably lower than the return from all forms of real estate ownership. Stocks have consistently provided the bulk of their return in appreciation of the stock over time.

INSTITUTIONAL vs. NONINSTITUTIONAL RATES

EDITOR'S NOTE: Table 3 shows noninstitutional-grade property discount rates (IRRs) and overall cap rates (OARs) for the surveyed markets for which sufficient data are available.

As with the rates published for institutional-grade property, we do not represent that the survey is statistically accurate for each surveyed market. Analysts are cautioned to test rates in local markets to verify spreads and relationships between institutional-grade and noninstitutional-grade property rates.

Despite the survey findings that rates are higher for noninstitutional-grade property, in our appraisal work we have found that the reverse is true in some cases in some markets.

As would be expected, the IRRs in our Survey are higher for noninstitutional-grade property than for institutional-grade property, reflecting the greater risk in owning noninstitutional-grade property.

Average noninstitutional-grade IRRs range from 12.13% (Atlanta office market) to 15.00% (Washington, DC office market). The composite average noninstitutional-grade IRR for all markets is 13.28%. This is 2 basis points higher than last quarter. By comparison, the composite average institutional-grade IRR is 11.29%.

Like the IRRs, the OARs in our Survey are higher for noninstitutional-grade property than for institutional-grade property. Average noninstitutional-grade OARs range from 9.71% (San Francisco office market) to 11.97% (national strip shopping center market). The composite average noninstitutional-grade OAR for all markets is 10.62%. This is 3 basis points higher than last quarter. By comparison, the composite average institutional-grade OAR is 9.12%.

PROPERTY PREFERENCES

Although REIT participants and a few others specialize in one property type, most participants are interested in acquiring all property types. They tend to shift at different points in the real estate cycle and focus on one or another property types. This quarter apartments are mentioned most often as a preferred property type.

Interest in apartment properties is increasing, despite high prices. Investors consider apartment investments a safe portfolio staple. Current enthusiasm is driven by good market fundamentals. There is always consumer demand, and supply has not gotten out of hand in most markets. Favored for investment are new projects, those built in the 1990s. Many investors prefer urban apartments over suburban projects.

Prices in the national apartment market are close to replacement cost, and they exceed it in some cases. However, since the market remains near its peak, prices are not expected to increase substantially over the next 12 months.

Industrial warehouse/distribution facilities are targeted by most participants. However, prices are generally above replacement cost for institutional-grade properties. Therefore, R&D/flex properties, with 20% to 40% office space, are increasingly acceptable investments. They are priced lower than warehouses, and there is considerable tenant demand from small start-up companies that want the ability to expand as their businesses take off. The average price differential between these two industrial property segments is evidenced in a 76-basis-point premium in the average OAR for R&D properties over the average OAR for warehouses. The difference in average

Table 3
Rates: Institutional-Grade vs. Noninstitutional-Grade Property
SECOND QUARTER 1999

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	INSTITUTIONAL				NONINSTITUTIONAL				SPREAD TO INSTITUTIONAL	
	IRRs		OARs		IRRs		OARs		AVERAGE IRR	AVERAGE OAR
Market	Range	Average	Range	Average	Range	Average	Range	Average	Basis Points	Basis Points
National Regional Mall	9.50%-12.50%	11.15%	7.00%-10.50%	8.38%	11.00%-16.00%	13.50%	8.00%-12.50%	9.94%	235	106
National Power Center	10.25%-12.50%	11.20%	8.00%-10.50%	9.66%	NA	NA	NA	NA	NA	NA
National Strip Shopping Center	10.00%-14.00%	11.61%	8.25%-12.00%	9.76%	12.00%-18.75%	14.20%	9.00%-15.00%	11.97%	259	221
National CBD Office	9.75%-15.00%	11.24%	7.00%-11.00%	8.79%	11.00%-18.00%	13.69%	8.50%-14.00%	10.56%	245	177
National Suburban Office	9.75%-12.50%	11.10%	7.50%-10.50%	9.15%	11.00%-14.50%	12.44%	9.50%-12.50%	10.83%	134	168
Atlanta Office	9.75%-12.00%	11.08%	8.00%-10.50%	9.23%	11.00%-13.50%	12.13%	10.00%-11.00%	10.63%	105	140
Chicago Office	9.29%-13.00%	10.92%	8.00%-10.25%	9.11%	10.25%-14.75%	12.34%	8.50%-12.00%	10.25%	142	114
Dallas Office	10.00%-13.00%	11.36%	7.50%-12.00%	9.33%	11.50%-15.50%	13.25%	9.00%-14.50%	11.08%	189	175
Houston Office	10.00%-13.50%	11.64%	8.00%-12.00%	9.55%	12.50%-14.50%	13.08%	10.25%-12.00%	10.75%	144	120
Los Angeles Office	10.00%-14.00%	11.71%	7.00%-10.50%	8.86%	11.75%-20.00%	14.71%	8.50%-13.00%	10.32%	300	152
Manhattan Office	9.75%-13.00%	11.35%	7.50%-10.50%	9.06%	10.25%-15.00%	12.96%	10.50%-13.00%	11.38%	161	NA
Pacific Northwest Office	10.00%-13.00%	11.27%	8.00%-11.00%	9.21%	11.50%-18.00%	13.98%	9.50%-15.00%	11.38%	271	217
San Francisco Office	10.00%-13.00%	11.05%	7.00%-11.00%	8.46%	10.25%-14.50%	12.84%	7.50%-11.00%	9.71%	179	125
Southeast Florida Office	10.00%-12.00%	11.08%	8.00%-12.00%	9.39%	11.25%-15.00%	13.20%	9.00%-14.00%	10.80%	212	141
Washington, DC Office	10.00%-13.00%	11.57%	7.00%-11.00%	9.17%	13.50%-18.00%	15.00%	9.00%-14.00%	10.75%	343	158
National Industrial	9.50%-12.50%	11.13%	8.00%-10.00%	9.15%	10.50%-14.50%	12.18%	8.25%-12.00%	10.21%	105	106
National Apartment	10.00%-15.00%	11.51%	7.50%-11.00%	8.86%	11.00%-17.00%	13.01%	8.50%-11.50%	9.83%	150	97

IRRs is a 54-basis-point premium in the average IRR for R&D properties over the average IRR for warehouses.

Office properties, both suburban and downtown, are still targeted for investment. CBD buildings are perceived to offer the greatest upside potential since prices are still well below replacement cost; in some markets discounts can be as high as 50%. By contrast, suburban properties in most markets are closer to replacement cost. However, their relative lower price makes them appealing, especially to investors looking for deals under $25 million.

Retail continues to bring up the rear in property preferences. Nevertheless, institutional investors who do want to acquire retail product have a hard time finding the best quality properties, which would enhance their portfolios.

Top-tier regional malls are desirable investments, but they are not widely available. When they are offered, they carry top-tier prices. Class-B malls that are protected from current and prospective competition are trading, but investors have little interest in malls in areas that do not have significant barriers to entry. Prices for regional malls are expected to increase slightly over the next 12 months.

Most investors favor grocery-anchored neighborhood and community centers over other retail property types. Despite their popularity, however, prices across the board are expected to change negligibly in the near future.

Power centers are not popular with all retail investors, by any means. However, some investors will consider this property type in order to acquire more retail properties to balance their portfolios. As is the case with regional malls, the most desirable power centers are not available. Prices in this retail segment are expected to remain stable this year.

GEOGRAPHIC PREFERENCES

Most institutional investors look nationwide for properties that meet their investment criteria. Specific geographic preferences depend on individual strategic goals, but participants generally concur on the attractiveness of certain markets.

Although some regional mall buyers confine their search to the top MSAs, most will consider potential acquisitions in any market with strong economic fundamentals. Some power center and neighborhood and community center investors like to consolidate their retail holdings in a region or local area for management efficiencies.

The CBDs most investors prefer are those with traditionally strong downtowns with good infrastructure and transportation, residential, retail, and mixed use, as well as cultural, recreation, and medical facilities. These include Boston, Chicago, Manhattan, San Francisco, and Washington, DC.

Other promising downtowns are Denver, Minneapolis, and selected Sunbelt cities. Secondary markets include Albuquerque, Nashville, Phoenix, Raleigh, and St. Louis.

Suburban office investors are prospecting in most major metropolitan areas. However, the amount of new development is now a factor that may strike some areas from target lists. Investors like Los Angeles, Miami, New York (Northern New Jersey suburbs especially), San Francisco, and Washington, DC.

Despite a tremendous amount of construction in the suburban markets that surround Atlanta and Boston, investors still like these areas. They believe that extraordinary demand will continue. This is also the case in the Northern Virginia suburbs.

Attractive suburbs in secondary markets include Cincinnati, Cleveland, Columbus, Denver, Kansas City, Minneapolis, Norfolk, Philadelphia, Pittsburgh, Richmond, St. Louis, San Diego, and Southern California.

Top-choice areas for industrial warehouse/distribution facilities are Atlanta, Chicago, Dallas, and Los Angeles. Other favored metropolitan areas include Columbus, Denver, Indianapolis, Miami, Portland, and the Baltimore-Washington Corridor. Preferred states are California, Florida, Louisiana, Northern New Jersey, Texas, and Washington. For R&D facilities, investors list Boston, Chicago, Portland, San Diego, and the San Francisco Bay area.

Preferred urban apartment markets include Chicago, Minneapolis, San Francisco, and Seattle. For suburban apartments participants name Atlanta, Austin, Denver, Los Angeles, Minneapolis, Orange County, San Antonio, San Diego, San Francisco, and Seattle. Other attractive apartment markets include Cleveland, Orlando, Tampa, Salt Lake City, metro Baltimore, and DC.

Table 4
Average Marketing Time (months)
SECOND QUARTER 1999

MARKET	CURRENT QUARTER	LAST QUARTER	YEAR AGO
National Regional Mall	8.11	8.05	9.55
CHANGE	—	+0.75%	–15.08%
National Power Center	7.13	7.50	7.50
CHANGE	—	–4.93%	–4.93%
National Strip Shopping Center	6.68	6.68	7.46
CHANGE	—	0.00%	–10.46%
National CBD Office	8.36	8.36	8.92
CHANGE	—	0.00%	–6.28%
National Suburban Office	7.75	8.00	8.13
CHANGE	—	–3.13%	–4.67%
Atlanta Office	6.50	6.50	7.50
CHANGE	—	0.00%	–13.33%
Chicago Office	7.50	7.50	7.50
CHANGE	—	0.00%	0.00%
Dallas Office[a]	7.14	6.50	6.69
CHANGE	—	+9.85%	+6.73%
Houston Office[a]	7.19	6.61	6.69
CHANGE	—	+8.77%	+7.47%
Los Angeles Office	5.56	5.69	6.83
CHANGE	—	–2.28%	–18.59%
Manhattan Office	8.35	7.77	8.65
CHANGE	—	+7.46%	–3.47%
Pacific Northwest Office	7.13	7.29	7.94
CHANGE	—	–2.19%	–10.20%
San Francisco Office	6.00	6.25	6.50
CHANGE	—	–4.00%	–7.69%
Southeast Florida Office	8.07	8.07	8.92
CHANGE	—	0.00%	–10.31%
Washington, DC Office	7.17	7.22	7.50
CHANGE	—	–0.69%	–4.40%
National Industrial	6.50	6.53	7.03
CHANGE	—	+0.46%	–7.54%
National Apartment	5.43	5.31	4.75
CHANGE	—	+2.26%	+14.32%
All Markets Surveyed (Simple Average)	7.09	7.05	7.59
CHANGE	—	+0.57%	–6.59%

a. Year-ago quarter times are for combined Dallas-Houston office market.

MARKETING TIME

Marketing time, the period from putting a property on the market to closing the sale, has been narrowing over the past several years. This quarter's estimates indicate that the length of time has become fairly stable in most markets.

Marketing time estimates for retail, office, industrial, and apartment properties are included in the Investor Survey Response tables. Average marketing times are shown in Table 4.

The greatest changes this quarter are a 9.85% increase in marketing time in the Dallas office market and an 8.77% increase in Houston. Marketing time decreased 4.93% in the national power center market. The shortest marketing time is 5.43 months in the national apartment market. The longest is 8.36 months in the national CBD office market.

The average for all surveyed markets is 7.09 months. This is a negligible 0.57% increase over last quarter's average; it is 6.59% lower than one year ago. ■

Special Report — e-Commerce and Retail Real Estate

by Karla L. Heuer

The internet is nothing less than revolutionary. It has already changed the way individuals and businesses communicate, and it is on the verge of altering retailing and distribution. Federal Reserve Chairman Alan Greenspan recently pointed to "the increasing evidence that a significant part of the distribution of goods and services in this country is going to move from conventional channels into some form of internet system — whether it's retail goods and services or a variety of other things." One result of this transformation will likely be a significant impact on retail real estate and industrial warehouse and distribution facilities. To a lesser extent, it will also affect office and residential properties.

EXPONENTIAL GROWTH

By any measurement, the statistics surrounding this medium, both past and projected growth, are astonishing. The commercial internet became a reality only about five years ago when Netscape introduced its first commercial Web browser. Since then it has exploded into the American consciousness. In less than five years, the number of North American households online reached 50 million. This makes the internet the fastest growing medium ever. By comparison, the number of years it took for radio to hit that mark was 38. It was 13 years for TV and 10 for cable. This comparison sets the stage for discussion of the incredible strides already made and the credibility of near-term projections.

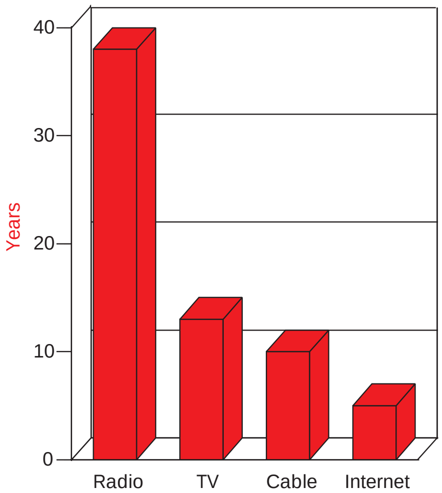
In the United States, the percentage of household income spent on computers has increased 800% over the past 15 years, according to the U.S. Department of Commerce. After years of being a high-income commodity, now the distribution of computers across income levels is broadening. In January 1999, while 45% of all U.S. households owned a PC, 70% of households with annual income above $75,000 were computer owners, and only 25% of households with annual income under $30,000 had PCs. Households with income under $35,000 are expected to be the leading source of first-time buyers in 1999, claims Mark Borsuk of The Real Estate Transformation Group. PCs have become affordable and are available at prices in the $500 to $600 range. This has far-reaching implications related to the internet.

Statistics about internet use vary dramatically, depending on the organization and the research instruments used. Yet they all show exponential growth in all indicators of permeation into the mainstream. In 1995 the total number of households online worldwide was 14.6 million, according to Jupiter Communications Inc., which predicts that in 1999, 62.4 million households will be online; it will be 117 million by 2002. One firm projects that by the end of 1999, more than 35% of U.S. households are likely to be online; this is up from 27% in 1998.

In 1997 the number of users worldwide was 69 million; it will be 228 million in 2001, according to International Data Corp. (IDC). By June 1998 the Nielsen Media Research/Commerce Net survey found there were 79 million internet users 16 and over in the United States and Canada alone. The user base increased 339% since 1995.

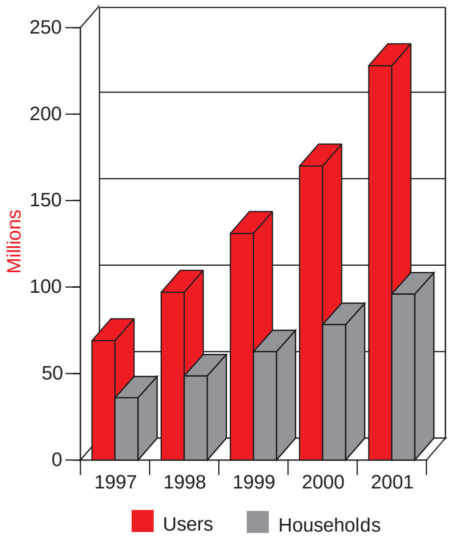
People are spending more time on the internet. In December 1996 Web usage averaged 200 minutes per month. The December 1998 average was about 320 minutes. According to one estimate, more than half of internet users spend more than five hours online per week. The results of a consumer survey conducted by Jupiter and NFO in Spring 1998 show that heavy users make the average number of hours soar to 10.8. By comparison, participants in the survey spent an

Exhibit 1
Years to Reach 50 Million Americans



Source: Morgan Stanley, eStats.

Exhibit 2
Online Households and Users (Millions)



Sources: Jupiter Communications, Inc.; International Data Corp.; The Korpacz Company, Inc.

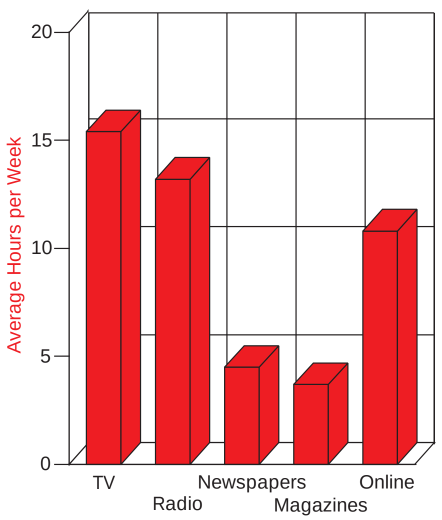
average of 15.4 hours watching TV, 13.2 hours listening to the radio, and 4.5 and 3.7 hours reading newspapers and magazines, respectively.

Internet users have a huge array of websites to surf. There are more than 100 million publicly addressable websites, says David D. Alger of Fred Alger Management, a New York-based investment firm.

In the information technology age, the internet is a gargantuan boon. Users can access information about anything. They need only connect to the World Wide Web for government and private research data, statistics, industry and consumer news, and information about entertainment and leisure activities. They can also shop. Even as information-only websites mushroom, the huge growth of commerce on the internet is perhaps the most surprising development of all.

Internet commerce, the trade of goods and services in which the final order is placed on the internet, will explode from $43 billion in 1998 to $1.3 trillion in 2003, according to Forrester Research Inc. At this level, online business trade will exceed

Exhibit 3
Media Usage by Online Users



Source: Jupiter/NFO Consumer Survey, Spring 1998.

9% of total business sales. Online business trade will make inroads into all U.S. business supply chains, and by 2003, the leading industries will include today's top industries — computing and electronics — as well as aerospace and defense, petrochemicals, utilities, and motor

On the cashless internet, e-commerce benefits credit card institutions.

vehicles. Ultimately, the internet "will fundamentally change the way all companies do business, from supply-chain logistics to customer service delivery," says Alger.

The consumer segment, e-commerce, has radically altered forecasts for the next several years. As recently as 1997, one projection was that online commerce would blossom into a $4 billion a year industry, and other forward thinkers were saying that retail competition from the internet was three to five years off.

Then came the 1998 holiday season, a watershed in e-commerce. The amount spent was substantial; various reports put the dollar total for the period somewhere between $1.3 billion and $4.4 billion. The Boston Consulting Company and shop.org reported that the merchants it surveyed said that from November 23 to December 20, 1998, year-over-year online revenues more than tripled. Online sales estimates were only between 0.2% and 0.8% of total retail sales, but this was enough to catapult the internet onto the radar screens of retail analysts.

Total 1998 online consumer retail revenue was near $8 billion; it will reach $108 billion by 2003, predicts Forrester. The compound annual growth rate over the next five years will be 69%, accounting for 6% of the $1.8 trillion U.S. consumer retail spending in 2003. Up from 8.7 million in 1998, more than 40 million U.S. households will shop online by 2003.

The percentage of internet users who shop online is increasing along with other growth indicators. A near consensus among researchers is that 30% of users are shopping online. From September 1997 through June 1998, "actual buyers" doubled to 20 million, reports the Nielsen Survey. In the same period, the growth of online buyers accelerated to 8% per month.

Once buyers make their first online purchase, they repeat the experience and spend more. The Ernst & Young Second Annual Internet Shopping Study reports that in 1998, 51% of online shoppers purchased goods and services at a website on at least five separate occasions, up from 17% in 1997. In addition, 35% of respondents claim to have spent $300 or more online in 1998, up from 26% in 1997.

A few years ago, concerns about credit card security deterred many would-be buyers, but during the 1998 holiday season, many thousands took the leap of faith and opted for convenience and low prices over security. Clearly, e-commerce benefits credit card institutions since there are no cash purchases and few check purchases online.

WHAT SELLS

Many people are already primed for online purchasing. They include the shoppers who bought $53 billion worth of goods from catalogs in 1998. They are accustomed to buying without seeing and touching products. This is the primary characteristic of goods that can best be sold via the internet. Other characteristics are brand and the lack of need for sales assistance. For example, a specific-model, brand-

Exhibit 4
Internet and In-store Characteristics of Products

INTERNET	IN-STORE
Name brands	Specialty
Commodity products	Nonstandard
Customized merchandise	Impulse buys
Self-service	Full-service
Sample Products	**Sample Products**
Computer hardware	Upholstered furniture
Computer software	Paint
Books and music CDs	Fashion apparel
Consumer electronics	Groceries
Hardware	
Building materials	
Casual clothes	
Office supplies	
Automobiles	
Reproductions of known furniture styles	

name appliance is the same whether it is shown in a store, pictured in a catalog, or listed on a website; and when the qualities and specifications of the product are clear, it can be bought without the help of a salesperson. See Exhibit 4 for a comparison of characteristics and sample products that lend themselves to internet or in-store sales. Exhibit 5 shows 1998 experience and projections for various products through 2003.

Computer hardware and software, consumer electronics, and books and music CDs have led the e-commerce trend since its inception. Dell has focused on selling PC hardware, software, and peripherals over the internet, and its sales are $10 million per day, as are those of Gateway computers. By comparison, Compaq, which has focused on in-store distribution, has sales over $1 million per day. Egghead Software is counting on the tendency for computer users to shop online. The company has closed all its retail stores to concentrate on selling via the internet.

Amazon.com, which spearheaded the cyberspace retailing trend, boasts 4.5 million book titles on its website and has recently added rare and used books, a category that holds 9 million titles. With 8 million customers, in just a few short years, it has become the third largest bookseller in the United States. Now such entrenched bricks-and-mortar booksellers as Barnes & Noble and Borders Books are hustling to catch up on internet sales.

Toys are often thought of as "want to see and touch" items, but Toys "R" Us Inc. is not taking any chances. eToys, an internet-only retailer, was first on the internet and got the jump on traditional toy retailers. Toys "R" Us recently formed an internet unit and expects to have online sales of $52 million in 1999 and $555 million in 2002. This excludes software, books, and other children's categories that sell online. Realizing the distribution requirements for internet sales, Toys "R" Us bought a 500,000-square-foot distribution center for its new internet unit.

On the service side, both travel

Exhibit 5
U.S. Online Retail Projections by Category

(Millions)	1998	1999	2000	2001	2002	2003	% of Total 2003 Retail
Total U.S. Revenue	7,826	18,152	33,029	52,244	76,269	108,031	6.00%
TOTAL CONVENIENCE	2,776	5,563	9,628	15,275	22,629	32,294	6.00%
Media	1,633	2,988	4,655	6,658	8,514	10,022	19.00%
Software	665	1,147	1,720	2,408	2,890	3,179	25.00%
Books	630	1,166	1,749	2,274	2,729	3,002	18.00%
Music	187	374	711	1,279	1,919	2,495	20.00%
Videos	151	301	475	697	976	1,346	12.00%
Event Tickets	115	238	476	952	1,714	2,572	19.00%
Apparel	530	1,340	2,843	4,977	8,328	13,510	4.00%
General apparel	275	878	1,994	3,881	6,899	11,699	5.00%
Footware	48	100	172	277	426	643	1.00%
Accessories	207	362	677	819	1,003	1,168	3.00%
Gifts and Flowers	311	563	810	1,062	1,377	1,770	6.00%
Flowers	212	374	510	621	755	906	10.00%
Greetings	36	68	109	161	229	320	3.00%
Specialty gifts	63	121	191	280	393	544	6.00%
Recreation	187	434	844	1,626	2,696	4,420	4.00%
Toys	68	158	299	569	930	1,481	5.00%
Sporting goods	56	137	294	641	1,107	1,918	5.00%
Tools and garden	63	139	251	416	659	1,021	3.00%
TOTAL RESEARCHED	4,347	11,050	20,056	31,004	42,976	56,265	11.00%
Leisure travel	3,073	7,798	13,950	20,732	26,042	29,447	11.00%
Electronics	1,174	2,815	5,124	8,391	13,602	21,097	12.00%
Computer hardware	1,090	2,404	4,147	6,453	10,088	14,965	14.00%
Computer electronics	84	411	977	1,938	3,514	6,132	10.00%
Housewares	100	437	982	1,881	3,332	5,721	7.00%
Appliances	17	118	318	672	1,268	2,275	6.00%
Household goods	83	319	664	1,209	2,064	3,446	9.00%
TOTAL REPLENISHMENT	703	1,539	3,345	5,965	10,664	19,472	3.00%
Food and beverage	235	513	1,132	2,459	5,009	10,836	2.00%
Health and beauty	213	509	1,189	2,108	3,833	6,294	5.00%
MISCELLANEOUS	255	517	1,024	1,398	1,822	2,342	7.00%

Source: Forrester Research, Inc. Copyright © 1999, Forrester Research, Inc. To create their detailed market model, Forrester combined 11 prominent retail categories into three groups: convenience items, researched purchases, and replenishment goods. Forrester modeled purchasing trends for each group separately by evaluating Technographics data for consumer demand and U.S. Census Bureau expenditure figures for retail-buying behavior.

and broker services online are skyrocketing. Leisure travel accounted for nearly $3.1 billion in sales in 1998 (see Exhibit 5). As an example of the success of online trading, approximately 55% of all Schwab's transactions are conducted online.

The internet is better at delivering self-customized merchandise than traditional retailers. For example, at the Ford Motor Company site, buyers can virtually "build" their own cars, choosing from hundreds of variables. General Motors' goal for the year 2002 is to sell a staggering $20 billion worth of cars online.

Shopping for cars is a prime example of one of the most attractive advantages of the internet. Now consumers can access information that was rarely available before the internet revolution. They can find out dealer wholesale prices, manufacturer's suggested retail price, current promotional offers and rebates, as well as the book value of used cars. They can research, price, and buy a car and arrange for financing –- all without seeing a salesperson.

The clear advantages to shopping online are information, convenience, and price. Stores are open 24 hours a day, seven days a week. With just a few clicks, the consumer can check prices at several websites or can use "bots," automated shopping agents that scan the internet for the lowest prices. Cyber prices are generally lower than store prices, and some companies are selling items at wholesale, hoping to make profits on advertising revenues.

IMPLICATIONS FOR RETAIL REAL ESTATE

The opportunities to buy consumer goods from major retailers are nearly unlimited. Among the goals of the retailers is to increase sales and market share, resulting in shifting revenues and possible reduction in staff and retail space needs. Business-to-business entities are leading the surge in internet commerce. Although internet commerce will eventually affect all property types to one extent or another, the focus in this report is on retail real estate.

The ultimate effect of e-commerce on real estate depends on the magnitude of online retail sales. There is certainly consensus that e-commerce will increase. However, because the internet is such a new medium, it is difficult at best to predict growth. The recent exponential growth in retail sales is a predictor of a trend, but more methods are needed to forecast internet sales. Currently, reports of internet access, use, and buying statistics vary so widely, neither growth rates nor the ratio between online sales and in-store sales can be forecast with much certainty from the data now available.

Will overall retail sales expand enough to benefit both websites and stores?

One important aspect of predicting the effect of e-commerce on retail real estate is consideration of the "expanding pie" question. That is, will overall retail sales expand enough to allow websites to prosper and not materially affect in-store sales? Will e-commerce generate enough new sales to offset those that may be lost at stores? Or will the "pie" remain approximately the same size so that online sales eat into in-store sales?

Opinion is divided on the answers, and there is not yet sufficient evidence to support either view. On the side of overall expansion of retail sales is that the internet could prove to be an additional outlet, generating some sales that would not have occurred in a store. In addition, retailers who have both websites and stores can bring internet shoppers into their stores to pick up or exchange merchandise. Once in the store, they may make additional onsite purchases.

Most analysts, however, believe that consumer consumption will not change significantly from the current level. Therefore, determining where e-sales might come from is important in speculating how present retail tenants will be affected.

One obvious source of internet customers is existing catalog shoppers, who are already acclimated to shopping from home. Retailers' websites will to some extent "cannibalize" sales in their own stores. In addition, manufacturers that operate retail stores, such as Coach and Levi Strauss, will sell products online, which may reduce the cost of maintaining stores, but will likely divert sales from stores that carry their products. The result of these and other possibilities will be that some stores will shrink or be shuttered, and some shopping centers will weaken and vanish.

As always, the strong will prevail, and the centers that have successful tenants will remain profitable. These will be retailers that take advantage of both real and virtual sales channels. While pure e-commerce companies such as amazon.com and eToys do not have the cost of operating stores, retailers with dual sales channels benefit from certain synergies. In "e-Commerce: Virtually Here," Merrill Lynch discusses some of the primary synergistic benefits that accrue to bricks-and-mortar retailers who also have internet sites. They are:

1. Buying — "clout" due to volume as well as experience in the buying and inventory process
2. Marketing
3. Store sites — can be used to pick up, return, and exchange items

4. Name recognition
5. In-store kiosks — allow shoppers to access their web sites to enhance their shopping experience.

Retail Product Types

In 1997 The Korpacz Company, Inc. identified key factors in organizing the possible effects of e-commerce on retail real estate. They are:

1. The type of goods most likely to be purchased electronically
2. Time frame for delivery
3. Consumer profiles

A fourth factor is shopping environment.

Recent experience proves that commodity goods make up the bulk of online purchases. These are goods that consumers need not personally inspect. Buyers know their features; and sellers can pick, pack, and deliver them without much difficulty. In addition and seemingly in direct contrast to such "simple" goods, products that require a significant amount of collateral information are big sellers on the internet. More information can be included online than most salespeople could provide. Customized goods, such as computers, are also often better sold online than in person.

Delivery remains an important issue in the decision to buy over the internet or not. Consumers will go to stores for goods they want or need immediately; they may go to the internet for goods for which they can or will wait. In addition to having to wait for goods they buy electronically, customers must pay shipping costs, arrange for delivery, and worry about security of goods delivered to their homes.

Customer profiles are indicative of who shops at which kind of store. On one end of the consumer-profile range are those who shop for high-price-point luxury goods and are a segment whom retailers believe will be in-store customers for a long time to come. The recent startup internet company Fashionmall.com, which reportedly has an agreement with Saks Fifth Avenue to be an anchor tenant, may attract some business from this segment.

Never say never when discussing the internet.

At the other end of the range are discount shoppers, some of whom were thought to be less likely to become online shoppers. Among the reasons were the cost of computers and service-provider subscription fees as well as less familiarity with computers due to having jobs that did not require higher education and/or computer use. However, the price of PCs has dropped dramatically, and lower-income households (under $35,000) are expected to buy PCs in increasing numbers. One recent report indicates that 50% of heads of households with AOL access have a high school education or less.

Regional Malls offer both commodity goods, which could be bought without personal inspection and for which consumers might be willing to wait; goods that buyers want to touch, examine, and perhaps try on; and goods they want immediately. In addition, across the broad spectrum of regional malls, there is something for every taste and price range.

As the list of categories of goods being sold successfully via the internet continues to grow, the goods offered for sale in a regional mall becomes a less important factor in the competition for retail sales. It may be nearly inconceivable that a large volume of high-end designer apparel and other luxury items will be sold online, but with this astounding medium, "never say never" takes on a new meaning.

The deciding element in a mall's success is attracting customers to the mall. Innovations of all kinds will make the difference. An example is General Growth Property's new partnership with CoolSavings.com. Customers can download coupons at the CoolSavings site to redeem at stores in General Growth's malls. Macerich is considering launching websites for its major malls that would allow customers to shop its stores online and schedule same-day pickup at a mall.

Tenants' business strategies become more critical than ever before. Those that exploit the synergies of dual sales channels will be a draw. This gives upper-tier malls with forward-looking tenants a leg up. The tenant mix at malls may change, shifting to more tenants who sell goods that are less likely to be sold via the internet and fewer who sell commodity goods. All classes of malls will no doubt continue to include more service tenants, and they will certainly have more entertainment and food venues.

The regional mall concept has withstood assault from various forms of competition since its inception. Its greatest strength is that it is a gathering place. People are social animals, and they like to shop. They like to go out and be with other people, and they see shopping as a recreational social experience. This is unlikely to change any time soon.

Power Centers are vulnerable to retail sales erosion from internet competition because their tenants generally sell goods that people do not need to touch and inspect. Power center tenants are usually companies that sell consumer electronics, appliances, office products, sporting goods, home improvement building supplies, books, and toys.

Creditworthiness and stability of

tenants are key to a power center's success. Because of the ongoing consolidation among traditional power center tenants, their strategic plans, including their early response to the threat from internet retailers sales, is critical. Retailers such as Best Buy, whose stores sell internet-access equipment and accessories, are positioning themselves for survival. Others that follow strategies, such as using their stores for pickup, returns, and exchanges and featuring e-commerce kiosks in their stores, will evolve as necessary.

Some current tenants will not survive, and many power centers will downsize or be adapted for other uses. An inherent handicap of the power center format is that it is an agglomeration of unrelated, physically separated big boxes with few in-line tenants. They do not have the synergy and physical layout that makes them easy to reconfigure. Those that have strong tenancies and can introduce new uses such as entertainment, food, and services are best positioned to prosper.

Neighborhood and Community Centers that are anchored by a dominant grocer and/or drugstore are the least vulnerable to e-commerce competition over the short to medium term. They are conveniently located, and consumers go to them for day-to-day necessities that they want to inspect and want immediately. Strip shopping centers include tenants who provide services, such as dry cleaning. Although there may come a day when people will grocery shop over the internet, the preference for squeezing the melon, verifying the expiration date on the milk container, and perusing the possibilities for dinner while walking down the aisle will not go away.

Nonetheless, a rapidly increasing number of grocery companies have launched websites or are preparing to do so. Forrester predicts that online grocery sales will hit $10.8 billion in 2003. This is only 2% of industry sales. However, within the next 10 years, 15% of U.S. households will purchase groceries online, estimates Consumer Direct Cooperative (CDC), an industry consortium.

The leaders on the current online grocery market are not supermarket chains; they are grocers that focus on internet sales, such as Peapod Inc. Their investments have yet to pay off because they must pick, pack, and deliver, which is labor intensive and costly. Thus far, their customers have generally used the service for stocking up. A new entrant into the field, Webvan, will reduce the labor requirements. The company will begin operations out of a 330,000-square-foot mechanized warehouse with five miles of conveyor belts and $3 million of electrical wiring, according to *The Wall Street Journal.*

The 3 most important real estate indicators: technology, location, and location.

Whole Foods Market recently became the first traditional grocer to launch a national online shopping service. The incentive for grocers is that sales are made without the cost of checkers, baggers, and stockers.

Five to 10 years ago, no one could foresee the inroads e-commerce would make. At this point in time, neighborhood and community centers seem inviolable to the internet threat for the foreseeable future. However, change is inevitable, and there will be innovations in the way groceries, health and beauty products, and other neighborhood shopping center staples are purchased.

IMPLICATIONS FOR VALUATION

The internet revolution is revolutionizing real estate as well. The answer to the question, What are the three most important indicators of real estate value? has become technology, location, and location. Internet retailers exist only in cyberspace; the only highway access they need is the information highway. If the basic tenet of real estate value can be undermined, clearly other aspects require consideration.

Retail Leases

As more sales are generated outside the traditional retail store format, new lease structures will have to be devised to satisfy both the tenant and the landlord. Percentage rents from stores that provide immediate-need goods, such as anchor grocery stores, and services, such as takeout food outlets, will not be affected in the near future.

However, most national retailers that tenant regional malls and power centers will probably soon have both online and in-store sales (if they do not already). Their landlords could benefit from online sales generated from in-store or mall kiosks through percentage rents. Or minimum rent could be set at a higher level than customary now, and leases could designate annual increases, either specific amounts or tied to an index such as the CPI. Or the formula might be the higher of (1) minimum rent plus percentage rent, or (2) minimum rent increasing every year at a specified rate.

Especially in the next few years as e-commerce evolves, tenants may want shorter leases or different percentage rent rates. They may also insist on clauses in their leases that allow them to terminate or reduce their space commitments before the end of the lease term. These options may be desirable because

UNDER ALL IS THE INTERNET
The internet affects all property types. The consequences of all goods-related trade changes warehouse space needs. Financial service providers, including banks and brokerage firms, are coaxing customers online to complete their transactions. The aim is to reduce office staff and space needs. Consumers are accessing the internet from home computer stations or full home offices. Because internet technology and usage are still in their infancy, the ultimate effects on nonretail real estate are nearly inconceivable, but some observations can be made.

Industrial. Both the locations and internal design of warehouse/distribution facilities will change, probably in the near future. The far-reaching success of e-commerce will depend on speed and efficiency of delivery. The need for proximity to express carriers for next-day or second-day delivery will draw warehouses closer to airports. The 330,000-square-foot fully mechanized warehouse, with five miles of conveyor belts, motorized carousels, and electric-eye bar-code scanners, constructed by Webvan Group Inc., could well become the standard for technologically efficient distribution of small consumer goods.

Warehouse space demand will undoubtedly shift. Internet-only retailers tend to carry low inventories, if any at all, which has an impact on warehousing. Direct selling from manufacturers to consumers will increase, with producers relying on just-in-time manufacturing and delivery. This will reduce their demand for warehouse space. More space may be required by major package delivery services.

Office. Almost all companies now conduct some business via the internet, including business-to-business commerce and e-mail communication. In addition, intranets and extranets enhance productivity. Consequently, the ability to accommodate high-speed telecommunications is already the difference between successful and obsolete buildings. Many new buildings are prewired, and older buildings are being renovated, with CAT-5 ethernet cable. The alternative, fiberoptics, which is faster and supports transmissions over a greater distance, is even more desirable. Today's office buildings have T1 or T3 lines, which provide direct access to the internet. These can become essential considerations in tenants' decisions about where to locate. For example, multimedia companies want to be in areas with access to satellite facilities, cable, and other electronic infrastructure.

As internet-based productivity increases, including services such as securities brokerage and airline ticketing, companies can downsize, reducing their need for real estate. However, new tech companies may increase the demand for high-tech office space.

Residential. With 45% of U.S. households using PCs, the capability for high-speed internet access in residences is becoming a must. The most logical access in houses is through cable wiring. Cable modems provide speed comparable to a T1 line. High-rise luxury apartment buildings could bring in T1 lines for their phone systems and internet access. However, this could require a computer expert on site, a sort of technical concierge.

of the unknown about the extent to which online sales might cannibalize in-store sales.

Forecasting Income

In valuing a shopping center, it will be useful to know the level of computer usage and particularly online buying in the trade area of a property. This will help to evaluate the demand for retail goods and services in the area, the buying power that may be attracted to the property, and the impact of internet competition along with competition from bricks-and-mortar retailers.

The potential impact of e-commerce on the merchandise categories in a property is a salient issue. It affects the estimate of retail sales that a property may generate and, consequently, income forecasts.

Because of e-commerce, the shopping center industry's ability to maximize sales gains will be limited through the next five years, according to Merrill Lynch. Their expectation is "that if total retail sales (both non-store and store based) grow at 4.0% for the next five years, store-based retailing will grow at approximately 3.5% during the same period." That being the case, the "12.5% reduction in overall same-store sales gain (from 4.0% to 3.5%) would be replicated with a 12.5% reduction in same store NOI growth."

CONCLUSION

There are many variables, many conflicting statistics, and many areas of speculation related to e-commerce. But there is also one area in which there is agreement: The internet clearly cannot be ignored even while the overwhelming majority of retail sales will take place in bricks-and-mortar stores for many years yet.

The nation's largest retailers are expanding their physical sales channels through aggressive programs of store openings. At the same time, some cyberspace retailers, such as Gateway, are opening stores to reach more customers and reinforce their brand names. Both are developing their online presences and attempting to anticipate customers' shopping needs and preferences. They are also attempting to anticipate where technology will take them. They want to lead, not follow. ■

National Regional Mall Market

The dream regional mall transaction, a top-tier property that dominates its trade area, is a hard deal to make. There is certainly demand for such malls, but they are hard to spring loose. When they do come to market, they are snapped up quickly — and at very low cap rates.

The malls that are trading are not necessarily the largest or dominant ones, but malls that are positioned so that there is little or no current or prospective competition. There is almost no interest in ordinary Class-B malls, those with sales under $250 per square foot and with few if any barriers to competition.

Sellers in this market include REITs, pension fund advisors, and foreign entities. Some pension funds are selling property in maturing commingled funds. The most active buyers are pension funds, advisors, and private investors. Some REITs are still buying malls, often in joint ventures with pension funds.

Although most transactions are for single malls, two notable portfolio sales are in the works. Both involve REITs, and both are joint ventures. Simon Property Group announced that it signed a definitive agreement to acquire the New England Development Company portfolio of 14 regional malls. Last year average retail sales per square foot in the malls were $367. Scheduled to close this summer, the deal price is reported at $1.725 billion. Simon will own a one-third interest, with two or three institutional investors holding the other two-thirds. The reported going-in cap rate is 8.25%.

Burnham Pacific Properties, a retail REIT, partnering with the California Public Employees Retirement System, has contracted to buy 34 shopping centers from AMB Property Corp. At a total price in excess of $945 million, the deal is to be completed in four stages before the end of the year. Burnham estimates the overall cap rate at 8.80%.

Pricing across the regional mall market is generally at the same levels as before last summer's correction. "This is reflected not only in asking prices but also in the current appraised values of centers we are considering for purchase," observes one participant.

The majority of regional malls are priced near replacement cost. Participants say that prices in the national regional mall market range from 80.0% to 120.0% of replacement cost. The average price is 98.8% of cost. Estimates of value change over the next 12 months range from 0.0% to 10.0%; on average, values are expected to increase 3.5%.

Key value indicators are shown in Table 5. Shifts were minor this quarter, indicating generally stable prices. The average discount rate (IRR) increased a negligible 1 basis point to 11.15%. The average overall cap rate (OAR) decreased a minor 3 basis points to 8.38%.

Cap rates for top-tier malls are considerably lower than the average OAR in the national regional mall market. For A+ malls, the range of cap rates is from 7.00% to 8.75%; the average is 7.75%. For A malls, the range is from 7.00% to 9.00%; the average is 7.85%. For B+ malls, the range is from 7.50% to 10.00%; the average is 8.75%. For B malls, the range is from 8.25% to 11.00%; the average is 9.66%.

"Retail isn't overbuilt, it's underdemolished," says one participant, "and the most underdemolished product is Class-B and Class-C malls." The capital expenditure to upgrade B malls to attract tenants that would excite shoppers is formidable, and C malls are candidates for a new use. Institutional investors simply are not interested. ■

Table 5
National Regional Mall Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	9.50%–12.50%	9.50%–12.50%	10.00%–13.00%
AVERAGE	11.15%	11.14%	11.30%
CHANGE (Basis Points)	—	+1	–15
Overall Cap Rate (OAR)[a]			
RANGE	7.00%–10.50%	7.00%–10.50%	7.00%–11.00%
AVERAGE	8.38%	8.41%	8.45%
CHANGE (Basis Points)	—	–3	–7
Market Rent Change Rate[b]			
RANGE	0.00%–4.00%	0.00%–4.00%	0.00%–4.00%
AVERAGE	3.09%	3.03%	3.00%
CHANGE (Basis Points)	—	+6	+9
Expense Change Rate[b]			
RANGE	3.00%–4.00%	3.00%–4.00%	3.00%–4.00%
AVERAGE	3.28%	3.39%	3.68%
CHANGE (Basis Points)	—	–11	–40
Residual Cap Rate			
RANGE	7.50%–10.50%	7.50%–10.50%	7.50%–11.00%
AVERAGE	8.55%	8.56%	8.76%
CHANGE (Basis Points)	—	–1	–21

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

National Power Center Market

Investors who like the power center format are still interested in acquiring good centers. The appetite is there, but as in the national regional mall market, there is a limited supply of available top-quality product.

Currently, REITs are noticeably absent as power center buyers, leaving the field open for pension funds. These buyers are motivated by the opportunity to balance their portfolios with some retail property.

Power centers are generally perceived as income investments, whose steady cash flow from long-term quality credit leases will help to balance income from other asset types that sometimes have uneven income returns. Typically, power centers have higher income returns, making them a good complement to a portfolio. Nevertheless, power centers are not universally popular with retail investors because they carry more risks than other retail formats.

Ultimately, all retail formats are tied to the success of the tenants. This is not necessarily explicit in power center leases, and operating covenants are not usual. Consequently, power center anchors may vacate because they are not successful or because they choose to move. Dark anchors may be the result of a new business strategy with a focus on much larger stores; or they may result from a shift in consumer preferences. “Success depends on what the hot boxes are,” says one participant, “When the anchors cool down, the center cools down.” Power center investors agree, however, that the retail failures that make big-box anchor spaces available are failures in concepts or competition. Retailers are driven by successful formats. The opportunity to find a less costly location, for example, is not a factor compared with the superior sales that come from a new format.

The anchor tenants and their credit-worthiness are key in a power center acquisition, and investors are very cautious. Some institutional investors will consider only the top 5% or 10% of centers, and most others have only a slightly lower threshold.

The majority of power centers are priced near replacement cost. Participants say that prices in the national power center market range from 80.0% to 120.0% of replacement cost. The average price is 98.8% of cost. Values are expected to remain stable over the next 12 months.

Key value indicators are shown in Table 6. All cash flow forecast assumptions shifted this quarter. The average discount rate (IRR) decreased 12 basis points to 11.20%. The average overall cap rate (OAR) dropped 16 basis points to 9.66%. The rate is 14 basis points lower than one year ago.

Because the long-term leases on anchor space generally provide little potential for rent growth, OARs are relatively high. However, in the typical power center deal, as in-line store space increases, the potential for rent growth increases, and cap rates usually decline. As a result, OARs tend to be highest on power centers that are 100% big-box space; and they tend to be lowest on power centers that are 75% big-box and 25% in-line stores.

In addition to the inherent risks in the power center format, there is consensus that power centers are more vulnerable to competition from internet e-commerce than regional malls or neighborhood shopping centers. Power center tenants generally sell the kinds of goods that are most successful on the internet. Among these are consumer electronics, appliances, office products, sporting goods, home improvement building supplies, books, and toys. ■

Table 6
National Power Center Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	10.25%–12.50%	10.25%–12.50%	10.00%–12.50%
AVERAGE	11.20%	11.32%	11.36%
CHANGE (Basis Points)	—	–12	–16
Overall Cap Rate (OAR)[a]			
RANGE	8.00%–10.50%	8.00%–10.50%	8.00%–11.00%
AVERAGE	9.66%	9.82%	9.80%
CHANGE (Basis Points)	—	–16	–14
Market Rent Change Rate[b]			
RANGE	0.00%–4.00%	0.00%–4.00%	0.00%–5.00%
AVERAGE	2.88%	2.83%	2.88%
CHANGE (Basis Points)	—	+5	0
Expense Change Rate[b]			
RANGE	2.00%–4.00%	2.00%–4.00%	3.00%–4.00%
AVERAGE	3.19%	3.29%	3.54%
CHANGE (Basis Points)	—	–10	–35
Residual Cap Rate			
RANGE	9.00%–10.50%	9.00%–10.50%	9.00%–10.50%
AVERAGE	9.75%	9.83%	9.96%
CHANGE (Basis Points)	—	–8	–21

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

National Strip Shopping Center Market

Neighborhood and community centers continue to lead all other retail properties in desirability among investors, and transaction activity in the national strip shopping center market has picked up after a slow start in the first months of the year. However, the supply of available community centers is inadequate to satisfy demand, as many owners hold back their best properties waiting for a REIT resurgence and top-dollar pricing again.

Buyers for the largest grocery- and drugstore-anchored community centers are pension funds and private regional companies, including those that develop as well as acquire centers. Individuals are prominent buyers of the smaller neighborhood strip centers. REITs that have access to capital are still buying shopping centers as well.

Supply and demand are close to equilibrium in the national strip shopping center market. Although neighborhood and community centers represented the bulk of shopping center development in 1998, the total number of centers was down compared with 1997, according to the National Research Bureau (NRB). In 1998, 389 centers less than 100,001 square feet were built, a 9.8% decrease from the 431 added in 1997. In 1998, 181 centers between 100,001 and 200,000 square feet were built, a 15.6% decrease from the 214 added in 1997. In 1998, 101 centers between 200,001 and 400,000 square feet were built, a 14.8% decrease from the 118 added in 1997.

The catalyst for much of the new strip center building is demand for supermarkets and other convenience stores and services in housing growth markets. Additional development is driven by grocery anchors that want to increase market share in established markets.

On average, prices in the national strip shopping center market are nearly at replacement cost. Participants estimate that they vary from 80.0% to 120.0% of replacement cost. The average is 97.9%. Prices are not expected to rise significantly over the next 12 months; the projected average increase is 2.1%.

Key value indicators are shown in Table 7. The only changes this quarter are in the average initial expense change rate and the average residual cap rate. The average discount rate (IRR) remains at 11.61% for the second consecutive quarter. At 9.76%, the average OAR is 5 basis points higher than one year ago.

Strip shopping centers have traditionally been perceived to pose higher investment risk than regional malls. Consequently, both IRRs and going-in cap rates reflect a premium for the higher risk. For the past year the spread between the average strip center IRR and the regional mall rate has been widening. This quarter the spread is 46 basis points. The strip center OAR has consistently been higher than the regional mall rate. This quarter's OAR premium is 138 basis points.

Although strip centers carry greater risk than regional malls and even power centers because of the greater proportion of regional and local tenants, they have the advantage in one area: e-commerce. They exist for convenience, and consumers go to them for day-to-day necessities that they want to inspect and want immediately. Although the idea of grocery shopping on the internet is enticing for high-density markets, such as Manhattan, it is less likely to be attractive in suburban areas. Ultimately, e-grocers may introduce drive throughs where consumers can pick up their orders, including perishables that have been kept properly refrigerated. ■

Table 7
National Strip Shopping Center Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	10.00%–14.00%	10.00%–14.00%	10.00%–14.00%
AVERAGE	11.61%	11.61%	11.61%
CHANGE (Basis Points)	—	0	0
Overall Cap Rate (OAR)[a]			
RANGE	8.25%–12.00%	8.25%–11.50%	8.00%–12.00%
AVERAGE	9.76%	9.76%	9.71%
CHANGE (Basis Points)	—	0	+5
Market Rent Change Rate[b]			
RANGE	0.00%–7.00%	0.00%–7.00%	0.00%–7.00%
AVERAGE	3.39%	3.39%	3.24%
CHANGE (Basis Points)	—	0	+15
Expense Change Rate[b]			
RANGE	2.00%–5.00%	2.00%–5.00%	2.50%–5.00%
AVERAGE	3.21%	3.25%	3.53%
CHANGE (Basis Points)	—	–4	–32
Residual Cap Rate			
RANGE	8.75%–12.00%	8.75%–12.00%	8.50%–12.00%
AVERAGE	10.03%	10.07%	9.98%
CHANGE (Basis Points)	—	+8	+5

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

National CBD Office Market

Triple-A CBD office buildings seem to have captured the Number 1 property type crown. "Maybe their IRRs are a hair lower than regional mall IRRs," observes a long-time Survey participant. Investor after investor mentions office as the top property choice, and many prefer CBD over suburban investments. As has been the case throughout the current cycle, there are more opportunities to acquire properties at greater discounts to replacement cost in CBDs, although "the bets are bigger and it's tougher to make something happen."

The pool of investors who can make such big investments is noticeably smaller now that REITs are generally out of acquisition mode. Nonetheless, deal making continues. After plunking down more than $5.1 billion for office property investments in 1998, pension funds are the most prominent office buyers during the first half of this year. Other buyers include private partnerships, and some foreign investors, especially German entities.

Life insurance companies, withdrawing from direct ownership of real estate, are preeminent sellers. Some REITs are selling property to raise capital. Also in a move to raise capital and shed noncore assets, some corporate owners are selling their office property and leasing it back from the new owners.

Prices are still rising in the hottest downtown markets, especially Midtown Manhattan, San Francisco, and Boston. Despite last summer's price scare, office prices in 1998 were up an average of 10% over 1997 nationwide, according to the National Association of Real Estate Investment Fiduciaries.

With CBD space markets tighter than they have been for a decade, rents continue to be propelled upward in downtown areas nationwide. One exception is San Francisco, where rents spiked at more than 20% per year and now are steady or declining slightly from that lofty peak.

The first quarter 1999 downtown office vacancy rate was 9.3%, according to CB Richard Ellis. Over the past 24 months, the rate dropped 3.5% from the first quarter 1997 rate of 13.1%. In the first quarter, however, downtown absorption was a negative 1.8 million square feet, which could signal a slowing of demand. Absorption had been positive in the preceding four quarters. New construction in most markets is minimal, and tighter credit puts the future of some announced projects in doubt. Still, vacancy rates are likely to rise 1.0% to 2.0% in the next 12 to 24 months.

Most CBD office buildings can still be acquired at a large discount to replacement cost, but prices exceed cost in some instances. Participants say that prices in the national CBD office market range from 65.0% to 110.0% of replacement cost. The average price is 90.8% of cost.

Key value indicators in the national CBD office market are shown in Table 8. For the past two years, values have moved steadily upward. After small increases last quarter in the average discount rate (IRR) and average overall cap rate (OAR), these two indicators decreased this quarter. The average IRR declined 4 basis points to 11.24%. The average OAR decreased 3 basis points to 8.79%.

Investors are watching for signs of a significant slowdown in demand for downtown office space. None have surfaced yet, and with the minimal amount of new construction to date, the national CBD office market is expected to remain healthy for at least the next two years. Now is a great time to buy or a great time to sell — it just depends on an investor's current strategy. ■

Table 8
National CBD Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	9.75%–15.00%	9.75%–15.00%	10.00%–15.00%
AVERAGE	11.24%	11.28%	11.55%
CHANGE (Basis Points)	—	–4	–31
Overall Cap Rate (OAR)[a]			
RANGE	7.00%–11.00%	7.00%–11.00%	7.50%–11.50%
AVERAGE	8.79%	8.82%	9.13%
CHANGE (Basis Points)	—	–3	–34
Market Rent Change Rate[b]			
RANGE	0.00%–8.00%	0.00%–8.00%	0.00%–10.00%
AVERAGE	3.83%	3.93%	3.89%
CHANGE (Basis Points)	—	–10	–6
Expense Change Rate[b]			
RANGE	2.00%–4.00%	2.00%–4.00%	2.00%–5.00%
AVERAGE	3.33%	3.33%	3.52%
CHANGE (Basis Points)	—	0	–19
Residual Cap Rate			
RANGE	7.50%–11.00%	7.50%–11.00%	8.00%–11.50%
AVERAGE	9.31%	9.33%	9.48%
CHANGE (Basis Points)	—	–2	–17

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

National Suburban Office Market

"The suburban office investment market is still hot, if only because there are so many buildings," says one participant. Quantity aside, many investors still see opportunity in suburban office investments. Despite the amount of development over the past few years, there are only a few markets that have a worrisome level of new supply. As long as the economy does not falter, enough space should be absorbed to put even these markets back into equilibrium.

The underlying fundamentals in suburban office markets are still good. In the first quarter the national suburban office vacancy rate increased to approximately 10.0%, one full percentage point higher than the year-end rate, according to CB Richard Ellis. However, construction activity remained constant across the 54 metropolitan markets the firm tracks. The amount of office space that is projected to come online in 1999 amounts to less than 4.0% of existing space inventory. Tighter capital for new development is likely to keep the overall percentage small.

Although aggregate absorption in suburban markets was down sharply in the first quarter compared with the prior quarter, demand could be higher in the second quarter due to strong economic conditions. The national unemployment rate increased a minor tenth of a percentage point to 4.3% in April from 4.2% in March. At the same time, however, 234,000 new jobs were created, a huge jump over the 46,000 that were added in March. This bodes well for suburban office properties because 80.0% of new jobs are in the suburbs. Start-up companies, which are the ones creating new jobs, tend to prefer suburban locations.

Properties in the national suburban office market are close to fully priced, even considering the late-1998 price correction, which was felt in this market more than in any other national market. Participants say that prices range from 80.0% to 115.0% of replacement cost. The average price is 97.1% of cost. Price increases over the next 12 months in some markets may be as high as 10.0%. The average projected price increase is 4.3%.

Key value indicators in the national suburban office market are shown in Table 9. This quarter's changes are minor. The average discount rate (IRR) decreased a negligible 1 basis point to 11.10%. The rate is 19 basis points lower than one year ago. The average overall cap rate (OAR) declined 2 basis points to 9.15%. This follows a 14-basis-point increase last quarter.

The average market rent change rate continues to drop. This quarter's 12-basis-point decrease follows a 23-basis-point decline last quarter. Clearly, rent spikes in most suburban markets are a thing of the past, and investors are using lower rent increases in their analyses.

The spreads between value indicators in the national CBD office market and the national suburban office market have fluctuated in recent quarters. Comparisons of value indicators show an average suburban IRR 14 basis points lower than that in the CBD office market. The suburban OAR is 36 basis points higher than the CBD rate, virtually identical to last quarter's spread.

The most promising markets, those where proposed construction is less than projected demand in the near term, include Las Vegas, San Antonio, New York, and San Diego, according to Donaldson, Lufkin & Jenrette research. ■

Table 9
National Suburban Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	9.75%–12.50%	9.75%–12.50%	10.00%–13.50%
AVERAGE	11.10%	11.11%	11.29%
CHANGE (Basis Points)	—	–1	–19
Overall Cap Rate (OAR)[a]			
RANGE	7.50%–10.50%	7.50%–10.50%	7.50%–10.50%
AVERAGE	9.15%	9.17%	9.05%
CHANGE (Basis Points)	—	–2	+10
Market Rent Change Rate[b]			
RANGE	0.00%–8.00%	0.00%–8.00%	0.00%–10.00%
AVERAGE	3.67%	3.79%	4.31%
CHANGE (Basis Points)	—	–12	–64
Expense Change Rate[b]			
RANGE	2.00%–4.00%	2.00%–4.00%	2.00%–5.00%
AVERAGE	3.09%	3.10%	3.58%
CHANGE (Basis Points)	—	–1	–49
Residual Cap Rate			
RANGE	8.00%–11.00%	8.00%–11.00%	8.25%–11.00%
AVERAGE	9.49%	9.49%	9.55%
CHANGE (Basis Points)	—	0	–6

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

Atlanta Office Market

Investor interest in the Atlanta office market has cooled as a result of concerns about overbuilding, unrestrained sprawl, traffic congestion, and diminishing quality of life. With most REITs out of the market, the investors who remain are shunning Atlanta in favor of markets where they perceive fewer potential problems. Among Survey participants, more are interested in disposing of Atlanta office property than are still looking for acquisitions there.

This may be a temporary situation. Although the rate of economic growth has slowed from its peak, the Atlanta metropolitan economy is still growing at a rate that is one of the highest in the nation. The amount of new construction is down, as many announced projects have been tabled. Perhaps most importantly, steps are being taken to control sprawl and traffic congestion outside the city. The Georgia Regional Transportation Authority has been created, and the Metropolitan Atlanta Rapid Transit Authority (MARTA) is working with developers to redevelop a 47-acre MARTA station into a mixed-use project of apartments, condominiums, office towers, retail, and entertainment.

At the same time, there is increasing focus on the central area on the part of tenants and developers. BellSouth Corporation is planning to move its workforce from widely scattered suburban locations into the city in new space near MARTA stations. Existing downtown tenants, such as Andersen Consulting, are expanding and absorbing space. Other city markets, including Midtown and Buckhead, are thriving.

During the past 12 months, 8.4 million square feet of space in 25 new buildings were added to the Atlanta office market inventory. This is nowhere near the amount added annually during the 1980s building boom. That was disastrous because of the simultaneous downturn in the economy, which is not the case this time around. During the past 12 months, net absorption has increased. The total net absorption in 1998 was 5.6 million square feet. During the first quarter, 3.3 million square feet of space were absorbed, according to Cushman & Wakefield. Nevertheless, the overall vacancy rate is over 11.0%. In the CBD the rate is over 17.0%.

Rental rates have stabilized and are not expected to increase significantly in the near term. The average asking rent for CBD Class-A space is $20.11 per square foot. For non-CBD Class-A space, it is $22.98 per square foot.

Most buildings in the Atlanta office market are fully priced. Participants report a range of prices from 90.0% to 110.0% of replacement cost. The average price is 100.0% of cost. Prices are expected to remain generally flat; the projected average increase over the next 12 months is only 1.9%.

Key value indicators in the Atlanta office market are shown in Table 10. There were no changes this quarter. The average discount rate (IRR) remains at 11.08%, following a 9-basis-point decline last quarter. The average overall cap rate (OAR) has fluctuated only slightly during the past year. At 9.23%, it is only 8 basis points higher than in the year-ago quarter.

After the REIT pullout last year, Atlanta was one of the markets in which average prices declined. While Class-A buildings held their prices relatively well, the average price per square foot across the market was down more than 6.0% in 1998 compared with the prior year. The average price per square foot was $104 in 1998; it was $111 in 1997.

REITs are not expected to return to this market in significant numbers any time soon. Consequently, the transaction market will remain quiet. ■

Table 10
Atlanta Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	9.75%–12.00%	9.75%–12.00%	11.00%–13.50%
AVERAGE	11.08%	11.08%	11.60%
CHANGE (Basis Points)	—	0	–52
Overall Cap Rate (OAR)[a]			
RANGE	8.00%–10.50%	8.00%–10.50%	8.00%–10.50%
AVERAGE	9.23%	9.23%	9.15%
CHANGE (Basis Points)	—	0	+8
Market Rent Change Rate[b]			
RANGE	0.00%–3.50%	0.00%–3.50%	0.00%–4.00%
AVERAGE	2.21%	2.21%	2.79%
CHANGE (Basis Points)	—	0	–133
Expense Change Rate[b]			
RANGE	3.00%–3.50%	3.00%–3.50%	3.00%–4.00%
AVERAGE	3.10%	3.10%	3.65%
CHANGE (Basis Points)	—	0	–55
Residual Cap Rate			
RANGE	9.00%–11.00%	9.00%–11.00%	9.00%–11.00%
AVERAGE	9.46%	9.46%	9.60%
CHANGE (Basis Points)	—	0	–14

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

Chicago Office Market

"Almost everything that was going to be swapped has been swapped," says one participant. Hence, transaction activity across the Chicago office market is relatively slow.

The most notable transaction announced recently is the sale of the Woodfield Corporate Center, the largest office complex in the suburbs. The same property was close to a sale to Crescent Real Estate Equities Inc. last year, but the deal was taken off the table when the market faltered. At $216 million, the price J.P. Morgan & Co. is paying is reported to be about 15.0% lower than the Crescent deal.

The four major suburban submarkets are experiencing another building boom. Some participants are concerned because only about 15.0% of the space under construction is preleased. While some submarkets where construction activity is heaviest have vacancy rates well under 5.0%, some large-space leases are due to roll over soon. In total, the amount of speculative space under construction in the Chicago suburbs is 3.7 million square feet; last year 2.6 million square feet were added to inventory, according to Cushman & Wakefield Inc. The first quarter suburban vacancy rate was 11.0%.

The largest recent transaction downtown was a portfolio sale which included 321 North Clark Street and 123 North Wacker Drive. A pair of buildings, 100 and 150 South Wacker Drive, were bought by Lincoln Property Company for a reported $100 million.

Absorption downtown has trailed off dramatically in recent quarters. Whereas leasing activity was strong in the first quarter at 1.7 million square feet, net absorption was 135,000 square feet, according to CB Richard Ellis. This is well below the five-year first-quarter average of 525,000 square feet. The first quarter CBD vacancy rate was between 10.5% to 11.8%, depending on which broker's report one reads.

CBD development activity has been slow to take off. Groundbreaking for Dearborn Plaza just north of the Chicago River took place only after an anchor tenant was secured. A letter of intent was signed to lease 400,000 square feet in a proposed office tower scheduled to go up at 1 North Wacker Drive. Site work was started but has stopped, and market watchers are speculating if the building will actually go up.

Existing buildings can still be acquired at significant discounts to replacement cost, especially in the CBD. An outstanding example is the sale of the Class-A building at 33 West Monroe Street last year for about 50.0% of replacement cost. Across the Chicago office market, prices range from 80.0% to 110.0% of replacement cost. The average price is 94.2% of cost.

Key value indicators are shown in Table 11. The greatest shift in cash flow forecast assumptions this quarter is the 34-basis-point decline in the initial market rent change rate. The average discount rate (IRR) decreased 3 basis points to match the year-ago rate. The average OAR remains at 9.11% for the second consecutive quarter.

The Chicago metropolitan economic growth is slowing due to tight labor conditions. Unemployment is just over 4.0% in the entire Chicago area. The Illinois Bureau of Employment Security recently "re-benchmarked" their employment numbers for the 20 months ending November 1998. The revised numbers, coupled with early 1999 numbers, show that employment growth has been accelerating rather than slowing. At the same time, the worker pool has become almost totally depleted. Employment growth this year is forecast at only 1.3%, down from last year's 1.7%. The vast majority of new jobs are in the suburbs, which will continue to impact downtown absorption. ■

Table 11
Chicago Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	9.29%–13.00%	9.29%–13.00%	9.50%–13.00%
AVERAGE	10.92%	10.95%	10.92%
CHANGE (Basis Points)	—	–3	0
Overall Cap Rate (OAR)[a]			
RANGE	8.00%–10.25%	8.00%–10.25%	8.00%–10.00%
AVERAGE	9.11%	9.11%	9.06%
CHANGE (Basis Points)	—	0	+5
Market Rent Change Rate[b]			
RANGE	0.00%–6.00%	0.00%–6.00%	0.00%–9.00%
AVERAGE	3.66%	4.00%	4.38%
CHANGE (Basis Points)	—	–34	–72
Expense Change Rate[b]			
RANGE	2.00%–4.00%	2.00%–4.00%	3.00%–4.00%
AVERAGE	3.09%	3.09%	3.38%
CHANGE (Basis Points)	—	0	–29
Residual Cap Rate			
RANGE	8.00%–10.50%	8.00%–10.50%	8.00%–10.25%
AVERAGE	9.28%	9.25%	9.24%
CHANGE (Basis Points)	—	+3	+4

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

Dallas Office Market

It's not easy to shed a reputation, and Dallas's reputation for overbuilding is keeping more than a few buyers away from its office investment market. Although the construction wave of the past two years has receded since development capital sources pulled back, many buyers are still wary. Investment in downtown Dallas has long been considered risky because area businesses have shown a decided preference for suburban locations. Now investors are also cautious about Las Colinas, Far North Dallas, and other suburban office markets that prospered at the expense of downtown.

Transaction activity is down compared with a year ago. The buyers that are in the market are pension funds, opportunistic buyers, and a few REITs doing smaller deals or joint ventures with institutional buyers.

Much of the real estate investment activity is in new developments. Some investors are becoming a bit nervous about these as vacancy rates rise. "We have two new projects going up in suburban Dallas and now our partner is saying, 'We never get anything leased until construction is nearly finished, so don't worry,'" reports one participant. "That's when I start to worry."

Approximately 9 million square feet of office space were under construction in the first half of the year, all of it in the suburbs. Last year 11 million square feet were added to inventory, while absorption was less than half of that, around 5 million square feet. As a result, vacancy rates are climbing, up 3.1% in the first quarter. Near-term demand does not match projected supply additions. Supply is expected to outpace demand by more than 4.0% over the next 12 to 18 months, according to Donaldson, Lufkin & Jenrette research.

Average rents increased nearly 8.0% over the past year, but now they have leveled and could begin to drop as new space is delivered. Average rent marketwide is around $20 per square foot. The average Class-A rent is approximately $24 per square foot; it is over $29 in the tightest submarkets.

Prices, which were at near-record levels last summer, ended the year down somewhat. Class-A suburban office buildings were going for $125 to $160 per square foot. In the CBD, Class-A properties were generally between $115 and $170 per square foot. Across classes, prices have been declining in recent quarters. Few markets in the nation have discounts to replacement cost as deep as those in the Dallas market; the deepest discounts are in prices for older downtown building. Participants estimate that across the market properties can be bought for 50.0% to 110.0% of replacement cost. The average price is 90.7% of cost.

Key value indicators in the Dallas office market are shown in Table 12. Current- and last-quarter indicators are for Dallas alone; indicators for the year-ago quarter are for the combined Dallas-Houston office market. All cash flow forecast indicators shifted this quarter, but changes are minor, indicating that prices are stabilizing. The average discount rate (IRR) decreased 2 basis points to 11.36%. The average overall cap rate (OAR) increased 9 basis points to 9.33%. This follows a 27-basis-point jump last quarter.

The average initial market rent change rate declined again. This quarter's 13-basis-point decrease comes on the heels of a 72-basis-point plunge last quarter. Clearly, investors are no longer including large rent increases in their analyses.

The Dallas economy is robust, and job growth is still strong, albeit down from the high levels of the past several years. "Supply comes and goes,"one investor observes. "As long as you don't invest downtown, you're probably okay." ■

Table 12
Dallas Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO [c]
Discount Rate (IRR)[a]			
RANGE	10.00%–13.00%	10.00%–13.00%	10.00%–14.00%
AVERAGE	11.36%	11.38%	11.63%
CHANGE (Basis Points)	—	–2	–27
Overall Cap Rate (OAR)[a]			
RANGE	7.50%–12.00%	7.50%–12.00%	6.50%–11.00%
AVERAGE	9.33%	9.24%	8.95%
CHANGE (Basis Points)	—	+9	+38
Market Rent Change Rate[b]			
RANGE	0.00%–10.00%	0.00%–10.00%	0.00%–10.00%
AVERAGE	3.21%	3.34%	4.38%
CHANGE (Basis Points)	—	–13	–117
Expense Change Rate[b]			
RANGE	2.50%–4.00%	2.50%–4.00%	3.00%–4.00%
AVERAGE	3.31%	3.35%	3.72%
CHANGE (Basis Points)	—	–4	–41
Residual Cap Rate			
RANGE	8.00%–12.00%	8.00%–12.00%	8.00%–11.00%
AVERAGE	9.53%	9.50%	9.53%
CHANGE (Basis Points)	—	+3	0

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change
c. Year-ago quarter indicators are for combined Dallas-Houston office market.

Houston Office Market

Office property investments in Houston are still considered a good play. Low oil prices a few months ago might have caused some investors to have doubts about this market, but the Houston economy is no longer so dependent on energy industries as was once the case. Economic growth in this cycle has been spurred by the technology, medical, and trade industries.

Although not creating the kind of crisis it would have a decade ago, the merger of British Petroleum and Amoco will affect the market. BP Amoco is expected to dump about 1 million square feet of space on the market. Because of solid demand from other industries, however, much of the space is likely to be absorbed. The Houston office market is healthy, and absorption has been strong. Last year nearly 4 million square feet of space were absorbed, approximately 25% of it in the CBD.

Nonetheless, the withdrawal of development capital comes at a good time, slowing new development activity. Over 5 million square feet were under construction early in the year, more than three times the 1.6 million square feet that came online last year. All recent office construction has been confined to suburban markets. The greatest amount of new space has been added in the Energy Corridor, followed by Westchase, West Houston (Katy Freeway), Sugarland, and The Woodlands. Going forward, it is unlikely that more than a few additional spec projects will get off the ground this year.

Transaction activity has slowed from its strong upswing last year. REITs are out of the market, and private companies are the most prominent buyers.

In the most high-profile deal of late, Presidio Investments contracted to buy the Weslayan Tower from John Hancock Mutual Insurance Co. The reported price for the 540,000-square-foot Class-A building is approximately $100 per square foot. This is above the market average, which ranges from approximately $55 to $95 per square foot.

Rental rates have steadied in recent quarters. Average Class-A rents in the tightest submarket range from just over $22 to over $24 per square foot. Class-A space is a small portion of the total office inventory, however, and the gap between Class-A and Class-B rents is considerable, with Class-A rents approximately 40.0% higher. Across the Houston market, the average rent in Class-B and C properties is around $14.50 per square foot.

In general, buildings can be acquired at some of the deepest discounts to replacement cost in the nation. Participants report that prices are between 50.0% and 105.0% of replacement cost. The average price is 83.3% of cost. Values are expected to rise over the next 12 months from 3.0% to 15.0%, with an average of 6.5%.

Key value indicators in the Houston office market are shown in Table 13. Current- and last-quarter indicators are for Houston alone; indicators for the year-ago quarter are for the combined Dallas-Houston office market.

The average discount rate (IRR) decreased 14 basis points to 11.64%. This follows a 12-basis-point increase last quarter. The average overall cap rate (OAR) increased 12 basis points to 9.55%. The initial market rent change rate is now 96 basis points lower than one year ago.

Downtown Houston continues to be touted as offering good investment opportunities. It is currently undergoing a renaissance, with construction of a new Ballpark at Union Station and loft conversions to residential use. ■

Table 13
Houston Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO [c]
Discount Rate (IRR)[a]			
RANGE	10.00%–13.50%	10.00%–13.50%	10.00%–14.00%
AVERAGE	11.64%	11.78%	11.63%
CHANGE (Basis Points)	—	–14	+1
Overall Cap Rate (OAR)[a]			
RANGE	8.00%–12.00%	8.00%–12.00%	6.50%–11.00%
AVERAGE	9.55%	9.43%	8.95%
CHANGE (Basis Points)	—	+12	+60
Market Rent Change Rate[b]			
RANGE	0.00%–8.00%	0.00%–8.00%	0.00%–10.00%
AVERAGE	3.42%	3.48%	4.38%
CHANGE (Basis Points)	—	–6	–96
Expense Change Rate[b]			
RANGE	3.00%–4.00%	3.00%–4.00%	3.00%–4.00%
AVERAGE	3.44%	3.50%	3.72%
CHANGE (Basis Points)	—	–6	–28
Residual Cap Rate			
RANGE	8.00%–12.00%	8.00%–12.00%	8.00%–11.00%
AVERAGE	9.75%	9.58%	9.53%
CHANGE (Basis Points)	—	+17	+22

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change
c. Year-ago quarter indicators are for combined Dallas-Houston office market.

Los Angeles Office Market

"There's a lot of money to do office deals in Los Angeles," says one participant, "the market's just not as crazy as last year." While some institutional investors are having a hard time investing the money they have allocated for real estate, owners are holding back property. Sellers who were hoping to sell in a fever-pitched market like last year's have to readjust their expectations since it is doubtful similar conditions will emerge in the near future.

Transaction activity will remain relatively slow for the balance of the year. Even today's slightly lower prices, which are estimated to be down from 25 to 50 basis points compared with the 1998 peak, are not expected to shake loose much property.

The most notable office property sale of the first half-year is the transfer of 100 Wilshire Boulevard in Santa Monica from Japan's Asahi Urban Development to Emmett Realty Advisors. The 21-story luxury building is the tallest building in Santa Monica and overlooks the beach. The reported sale price of $355 per square foot is about $68 per square foot more than the Japanese firm paid for the tower in 1987.

At the far end of the price spectrum, Hertz Investment Group purchased the Standard Oil Building in downtown Los Angeles. The $4.5 million price tag represented about $45 per square foot. The historic building is near the soon to be completed Staples Arena.

The new arena is the cornerstone of the downtown renaissance. It is expected to open later this year — if all goes well, in time for the hockey season. The Los Angeles Lakers, Clippers, and Kings will play there. The positive energy this project is generating, as well as rents that are lower than for comparable space in the Westside and Glendale submarkets, is luring some major tenants to downtown office buildings. Several insurance companies have relocated into the area, but vacancy rates, which had dropped to around 18.5%, were up to 20.2% in the first quarter. However, with no new construction on the horizon, there is hope that positive absorption will increase again. Class-C buildings downtown are drawing telecommunications and other high-tech tenants. As in other cities, a high-tech district is developing.

Although absorption has slowed in submarkets where tenants devoured space during the past several years, the overall market is strong. Rental rates are level and will hold through the end of the year.

Office properties in the Los Angeles market offer considerable upside potential since they are generally still available at less than replacement cost. Across the market, prices range from 75.0% to 100.0% of replacement cost. The average price is 94.4% of cost. Prices are expected to increase as much as 10.0% over the next 12 months. The average projected increase is 5.6%.

Key value indicators are shown in Table 14. All cash flow assumptions shifted this quarter. The greatest change is a 98-basis-point plunge in the average initial market rent change rate. This follows a 44-basis-point drop last quarter. The rate is 89 basis points lower than in the year-ago quarter. Clearly, investors realize that rent spikes have already occurred, and most are no longer forecasting large rent increases.

The average discount rate (IRR) increased 8 basis points to 11.71%. The average overall cap rate (OAR) increased 12 basis points to 8.86%.

The office market in metropolitan Los Angeles continues to benefit from the influx of new companies and expansion of existing firms. Businesses are bullish on the Southern California economy, and real estate investors are eager to own property there –- whenever it becomes available. ■

Table 14
Los Angeles Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	10.00%–14.00%	10.00%–14.00%	10.00%–15.00%
AVERAGE	11.71%	11.63%	11.74%
CHANGE (Basis Points)	—	+8	–3
Overall Cap Rate (OAR)[a]			
RANGE	7.00%–10.50%	7.00%–10.50%	7.00%–11.00%
AVERAGE	8.86%	8.74%	8.90%
CHANGE (Basis Points)	—	+12	–4
Market Rent Change Rate[b]			
RANGE	2.50%–6.00%	2.50%–10.00%	0.00%–10.00%
AVERAGE	4.36%	5.34%	5.25%
CHANGE (Basis Points)	—	–98	–89
Expense Change Rate[b]			
RANGE	3.00%–4.00%	3.00%–4.00%	3.00%–4.00%
AVERAGE	3.25%	3.42%	3.48%
CHANGE (Basis Points)	—	–17	–23
Residual Cap Rate			
RANGE	8.00%–11.00%	8.00%–11.25%	8.00%–11.00%
AVERAGE	9.25%	9.30%	9.45%
CHANGE (Basis Points)	—	–5	–20

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

Manhattan Office Market

As hot as the Manhattan office market is, and as ubiquitous as it is on investors' target lists, transaction activity is relatively cool. Class-B buildings are trading at a pretty good clip, but top-tier buildings are not offered for sale because they are just too valuable to the owners. "The prime buildings are in solid hands, and they are not selling," observes one participant. There is no incentive for owners to sell and every incentive to hold.

Rents in Manhattan have increased between 15.0% and 20.0% over the past year, a result of the extremely tight space market. This is one of the tightest office markets in the nation, and demand growth is expected to exceed supply growth over the next 18 months. Even though net absorption was down slightly in the first quarter from one year ago, vacancy rates are very low. Some submarkets, such as Midtown South, have vacancy rates under 5.5%. In Midtown the rate was 7.8% at the end of the first quarter, according to Cushman & Wakefield, which reports a Downtown first-quarter vacancy rate of 9.7%. In Midtown the overall average asking rent was $40.53 per square foot; for Class-A space, the average was $47.78. Downtown the overall asking rent hit $31.32 per square foot; for Class-A space it was $38.64.

There is no rent relief in sight, even when the 1.5 million square feet of space now under construction in Midtown Manhattan are delivered. Both the Durst and Reuters buildings are fully leased. No additional development is likely to be undertaken without significant preleasing. "There are tenants looking at every one of the proposed projects, and they are ready to pay rents around $55 per square foot," says one participant. That's the rent needed to make the deals work.

Prices for Manhattan office properties are still generally below replacement cost, and discounts of 10.0% to 40.0% are the norm. Those at the greatest discount are Class-B properties, but prices of these buildings are rising. Since no new space will be delivered in Manhattan in the near term, buildings that can be renovated are in great demand. Participants estimate that the average price of Class-A and Class-B properties together is 80.0% of replacement cost.

Recent transactions are evidence of discounts to replacement cost. The 32-year-old building near Pennsylvania Station at 450 West 33rd Street was sold for approximately $139 per square foot. Downtown a contract was signed to purchase the tower at 45 Broadway for between $134 and $139 per square foot. The sellers of these properties were an insurance company and a German real estate investment company.

Insurance companies are prominent sellers in Manhattan currently. Private partnerships and foreign investors are active buyers.

Prices are expected to increase from 3.0% to 10.0% over the next 12 months. The average projected increase is 7.4%.

Key value indicators in the Manhattan office market are shown in Table 15. All cash flow forecast assumptions shifted this quarter. The greatest change is a 26-basis-point jump in the average discount rate (IRR) to 11.35%. The average overall cap rate (OAR) increased 6 basis points to 9.06%. Although the low end of range of cap rates in our Survey is 7.50%, most recent trades have been from 8.50% to over 9.00%. This is because the buildings that are changing hands are older buildings.

Failing any unforeseen financial disasters, the Manhattan office market will remain strong for at least the next 24 months. An increase of 35,000 new jobs in 1999 is projected. The gains will be in tourism, communications, and media and professional services. ■

Table 15
Manhattan Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	9.75%–13.00%	9.75%–13.00%	10.00%–14.00%
AVERAGE	11.35%	11.09%	11.14%
CHANGE (Basis Points)	—	+26	+21
Overall Cap Rate (OAR)[a]			
RANGE	7.50%–10.50%	7.50%–10.00%	7.50%–12.00%
AVERAGE	9.06%	9.00%	9.14%
CHANGE (Basis Points)	—	+6	–8
Market Rent Change Rate[b]			
RANGE	0.00%–6.00%	0.00%–6.00%	0.00%–10.00%
AVERAGE	3.56%	3.67%	3.44%
CHANGE (Basis Points)	—	–11	+12
Expense Change Rate[b]			
RANGE	3.00%–4.00%	3.00%–5.00%	3.00%–5.00%
AVERAGE	3.44%	3.56%	3.72%
CHANGE (Basis Points)	—	–12	–28
Residual Cap Rate			
RANGE	8.00%–10.50%	8.00%–10.50%	7.00%–11.00%
AVERAGE	9.19%	9.20%	9.18%
CHANGE (Basis Points)	—	–1	+1

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

Pacific Northwest Office Market

The Seattle economy keeps running at full speed, not seeming to notice an Asian financial problem or Boeing's mixed messages. Meanwhile, Portland's economy has slowed a bit but all signs point to its picking up by the end of the year. The economy in Portland is generally stable; it does not experience the tremendous fluctuation seen in other markets. The office markets in both major cities of the Pacific Northwest are healthy. As a result, investors continue to seek opportunities. There is still a solid supply of buyers, who jump at the chance to buy whenever an institutional-grade property becomes available.

Recent transactions indicate that prices are down somewhat from mid-1998 highs. For example, a pension fund advisor recently paid $152 per square foot for One Main Place in downtown Portland. A year ago the comparable Benjamin Franklin Plaza went to a REIT for $185 per square foot. Nonetheless, the 1995 price for One Main Place was $35 million, compared with today's $44.5 million.

Rents continue to climb in Seattle's CBD; they have leveled in Portland. Over the past 12 months, Seattle's average asking rent bolted upward 40.0% to $28.80 per square foot, and Class-A rents increased 30.0% to $31.65, according to Cushman & Wakefield. Suburban rents across all classes average $18.08 per square foot. Rents for top properties are higher in Portland's suburbs than in the CBD. The average asking rent in suburban Portland for Class-A space is $23.15 per square foot. The average in the CBD is $21.75.

Speculative development continues in the Portland suburbs, and two major buildings are under construction downtown. Vacancy rates are expected to rise while demand catches up with supply over the next 18 months. The first quarter overall vacancy rate was 7.5% in the CBD and 10.4% in the suburbs.

The Seattle office market, by contrast, is much tighter. Even though approximately 180,000 square feet of office space hit the CBD as a result of the dissolution of a major law firm, the first quarter overall vacancy rate increased to only 5.8%. The rate was 8.0% in the suburbs.

Some buildings in the Pacific Northwest office market are priced higher than replacement cost, but more are available at a discount to the cost benchmark. Prices are 85.0% to 110.0% of replacement cost. The average price is 97.9% of replacement cost. One participant believes that prices could drop over the next 12 months; most, however, look for increases between 2.0% and 10.0%. The average projected increase is 2.4%.

Key value indicators in the Pacific Northwest office market are shown in Table 16. The average discount rate (IRR) remains at 11.27% for the second consecutive quarter. This follows a 14-basis-point decrease last quarter. The average overall cap rate (OAR) edged up 3 basis points to 9.21%.

Despite a considerable amount of construction across the Seattle market, absorption has been good. Demand continues to be driven by the high-tech sector. In Portland, weakness on the part of two major space users in the suburban market, Intel and Nike, has affected demand over the past year, causing some caution among potential buyers. "We would not want to do a deal with a lot of leasing exposure in the next 12 months," says one participant. However, the local economy will likely start to turn around in the next six to 12 months. The semiconductor industry is on the verge of a resurgence. Nike, on the other hand, is more subject to a rebound in Asian economies. ■

Table 16
Pacific Northwest Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	10.00%–13.00%	10.00%–13.00%	10.00%–15.00%
AVERAGE	11.27%	11.27%	11.52%
CHANGE (Basis Points)	—	0	–25
Overall Cap Rate (OAR)[a]			
RANGE	8.00%–11.00%	8.00%–11.00%	8.00%–11.25%
AVERAGE	9.21%	9.18%	9.33%
CHANGE (Basis Points)	—	+3	–12
Market Rent Change Rate[b]			
RANGE	2.50%–8.00%	2.50%–8.00%	3.00%–8.00%
AVERAGE	4.43%	4.54%	4.50%
CHANGE (Basis Points)	—	–11	–7
Expense Change Rate[b]			
RANGE	2.00%–4.00%	2.00%–4.00%	3.00%–5.00%
AVERAGE	3.34%	3.34%	3.61%
CHANGE (Basis Points)	—	0	–27
Residual Cap Rate			
RANGE	8.50%–10.50%	8.50%–10.50%	8.50%–10.75%
AVERAGE	9.44%	9.43%	9.45%
CHANGE (Basis Points)	—	+1	–1

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

San Francisco Office Market

San Francisco is the hottest office market in the nation. Although cap rates are extremely low compared with other markets and rents have leveled, investment demand has not diminished. Properties that have been offered recently have attracted 10 to 12 bidders, only slightly fewer than vied for deals at the same time last year. Among the current buyers are pension funds, private investment groups, and Chinese and German investors. Foreign investors have filled the void left by REITs when they exited the market.

While competition has not receded much compared with last summer, the return criteria have changed a bit. Investors are now more focused on at least some cash return, which is estimated at about 7.00% as a minimum.

Transaction activity is starting to pick up in suburban submarkets from a near moratorium in the first quarter, but downtown is by far the most active area. There were a dozen or more downtown buildings of substantial size on the block by the end of the second quarter, and at least half of the recent trades are Class-A properties. Prices for Class-A buildings are approximately $300 per square foot. The 21-story tower at 88 Kearny Street is expected to close at around $320 per square foot.

Development downtown is limited; total space under construction is less than 1 million square feet. Big 5 accounting firms will anchor two new buildings, PricewaterhouseCoopers at 199 Fremont Street and Arthur Andersen at 101 Second Street. Equity Office Properties Trust is constructing an additional building, but there is no substantial preleasing in this project.

Prices in the San Francisco office market have dropped approximately 10.0% since last summer. While they are still close to replacement cost, participants now estimate that the average price is 95.5% of cost. This is 260 basis points lower than last quarter's estimate. The range is 70.0% to 110.0% of replacement cost. Prices are expected to increase as much as 10.0% over the next 12 months; the average increase is projected at 4.0%.

Key value indicators are shown in Table 17. The average discount rate (IRR) increased 34 basis points to 11.05%. The average overall cap rate (OAR) inched up 4 basis points to 8.46%.

The greatest change in key indicators again this quarter is in the average initial market rent change rate. This quarter's 67-basis-point drop brings the rate to 4.00%, 214 basis points lower than one year ago. Rents in Class-A buildings downtown soared 30.0% to 40.0% over the past two years. Now rents have stabilized, and may be down slightly, about 1.0%. Rents are not expected to trend downward, although one active investor reports that in some cases he "grows" rent at a rate below inflation for the first two years. Other investors anticipate better than average rent growth, and while the huge rent spikes of recent years have already occurred, this quarter more participants, 57.1%, say they are incorporating spikes into their analyses. This is up from 33.3% last quarter. The range of spikes is from 4.0% to 10.0%; the average is 8.0%, 50 basis points lower than last quarter.

The biggest boom area in this boom town is the South of Market multimedia submarket. Other sectors of the economy may have felt some twinges either from Wall Street or Asian markets, but internet companies and multimedia software firms have not experienced even a blip. Rents in the rehabbed warehouses in "Multimedia Gulch" are nearly as high as in the financial district. They run from $35 to over $40 per square foot. The average is $45 per square foot for Class-A space in the downtown core. ■

Table 17
San Francisco Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	10.00%–13.00%	9.25%–12.00%	10.00%–13.00%
AVERAGE	11.05%	10.71%	11.21%
CHANGE (Basis Points)	—	+34	–16
Overall Cap Rate (OAR)[a]			
RANGE	7.00%–11.00%	7.00%–11.00%	7.00%–11.00%
AVERAGE	8.46%	8.42%	8.57%
CHANGE (Basis Points)	—	+4	–11
Market Rent Change Rate[b]			
RANGE	0.00%–10.00%	0.00%–10.00%	0.00%–11.00%
AVERAGE	4.00%	4.67%	6.14%
CHANGE (Basis Points)	—	–67	–214
Expense Change Rate[b]			
RANGE	3.00%–4.00%	3.00%–4.00%	3.00%–4.00%
AVERAGE	3.43%	3.50%	3.61%
CHANGE (Basis Points)	—	–7	–18
Residual Cap Rate			
RANGE	8.00%–10.00%	8.00%–10.00%	8.00%–10.00%
AVERAGE	8.89%	8.88%	8.82%
CHANGE (Basis Points)	—	+1	+7

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

Southeast Florida Office Market

Class-A office buildings continue to trade in the Southeast Florida office market, but in some cases the disparity between the asked price and bids has been so wide that the properties have been pulled off the market. Interested buyers are private investment groups, pension funds, and foreign investors. Sellers include life insurance companies and private partnerships. Across the market public REITs currently are net sellers.

A relatively small market, the Southeast Florida office market is spread over three counties — from the middle of Palm Beach County, through Broward County, to the end of Dade County. The major office markets are West Palm Beach, Boca Raton, Fort Lauderdale, and Miami. Miami-Dade County contains more than 26 million square feet of institutional-grade office properties. There is not a significant supply of institutional-grade office space outside of Miami; Broward County contains approximately 13.5 million square feet, and Palm Beach has just under 12.5 million square feet.

Although there is some concern about economic problems in Latin America slowing the international business that is centered in Dade County, the office markets in this area continue to thrive. Growth is being spurred by expansion of existing companies. The overall vacancy rate in Miami has plunged in recent years. As of first quarter, the vacancy rate in Miami's CBD market, which includes the strongest submarkets Airport/West Dade and Brickell Avenue, was 14.6%, according to Cushman & Wakefield. Outside the CBD, the vacancy rate was 13.0%. The average Class-A asking rent has climbed to $28.46 per square foot in the CBD; it is $25.69 across non-CBD submarkets.

Palm Beach County has long been the weakest area because it has the least amount of commerce and the most available land. The amount of new development has been substantial, and vacancy rates are rising to overbuilt levels. (Overbuilt markets are those in which vacancy exceeds 18.0% and significant concessions are prevalent.) In the first quarter, absorption was negative in all Palm Beach County submarkets, except Boca Raton, where the overall vacancy rate nonetheless reached 20.2%. The West Palm Beach CBD vacancy rate hit 20.6%, and it was 17.9% in the suburban submarkets, according to Cushman & Wakefield. Rents are higher than in Miami, however. The average asking rent for Class-A space in the CBD is $32.69 per square foot. It is $26.73 outside the CBD.

Prices are close to replacement cost and exceed it for many buildings. The range is from 80.0% to 110.0% of replacement cost; the average is 97.1% of cost. Participants expect prices to rise from 2.0% to 5.0% over the next 12 months. The projected average increase is 3.3%.

Key value indicators are shown in Table 18. The average discount rate (IRR) decreased 6 basis points to 11.08%. The average overall cap rate (OAR) remains at 9.39% for the third consecutive quarter.

Continued new development in the Southeast Florida office market could set some areas back to near mid-1990s conditions. Although demand for space is strong in the Miami-Dade County area, only about 10.0% of the 1.4 million square feet of office space under construction has been preleased. There are over 900,000 square feet of office space under construction in the Broward County Fort Lauderdale area, where the first quarter vacancy rate increased to 18.8%. Finally, a new hotel-office project, Centrepark Corporate Center, in downtown West Palm Beach will deliver 113,000 square feet of office space into an already flaccid submarket. ■

Table 18
Southeast Florida Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	10.00%–12.00%	10.00%–12.00%	10.00%–13.50%
AVERAGE	11.08%	11.14%	11.16%
CHANGE (Basis Points)	—	–6	–8
Overall Cap Rate (OAR)[a]			
RANGE	8.00%–12.00%	8.00%–12.00%	8.00%–12.00%
AVERAGE	9.39%	9.39%	9.42%
CHANGE (Basis Points)	—	0	–3
Market Rent Change Rate[b]			
RANGE	2.00%–7.00%	2.00%–7.00%	2.00%–7.00%
AVERAGE	3.50%	3.63%	4.21%
CHANGE (Basis Points)	—	–13	–71
Expense Change Rate[b]			
RANGE	2.00%–4.00%	2.00%–4.00%	3.00%–4.00%
AVERAGE	3.09%	3.19%	3.43%
CHANGE (Basis Points)	—	–10	–34
Residual Cap Rate			
RANGE	9.00%–11.00%	9.00%–11.00%	9.00%–11.00%
AVERAGE	9.72%	9.72%	9.93%
CHANGE (Basis Points)	—	0	–21

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

Washington, DC Office Market

Washington, DC is abuzz with real estate activity. Tenants are locking in leases before rents can go any higher, developers are adding to the insufficient inventory as quickly as they can, and investors are closing on deals at a fast clip.

The DC space market is tight as a drum. The overall vacancy rate is just over 5.0%. Demand is being driven by expanding law firms and other service companies. The tight space market has caused rents to rise to a level that supports new construction. The average asking rent in the District is over $28 per square foot; Class-A space ranges from about $35 to $42 per square foot. Space in the top-tier projects that come online next year will run as high as $45 per square foot.

With such statistics, it is no wonder that cranes are up all over the District. In total, there are more than 2 million square feet of new office space under construction. Most projects have substantial preleasing in place, ranging from 30% to 90%.

Transaction activity is up, following a relatively quiet first quarter. When properties go on the market now they sell quickly. Private investor groups and foreign entities, including German investors and others from Western Europe and Asians, are prominent buyers. Sellers include pension funds and life insurance companies.

Some recent transactions exceeded the average 1998 sale price of $210 per square foot. The 12-year-old building at 1201 New York Ave., NW was sold to a real estate advisor representing Asian institutional investors. The price for the fully leased Class-A building was $280 per square foot.

Another Class-A property, 1615 L Street, went for approximately $244 per square foot. The price is reportedly 75.0% of replacement cost. The 15-year-old building is about 88.0% leased.

Across the market, which includes Northern Virginia and suburban Maryland, prices are generally below replacement cost. Overall, prices range from 75.0% to 100.0% of replacement cost. The average is 90.6% of replacement cost. Over the next 12 months values are expected to increase up to 10.0%; the average projected increase is 3.2%.

Key value indicators are shown in Table 19. All cash flow forecast assumptions shifted this quarter, but the changes are small. The average discount rate (IRR) increased 7 basis points to 11.57%. This follows a 19-basis-point increase last quarter. The average overall cap rate (OAR) increased 4 basis points to 9.17%. Last quarter the average OAR shot up 25 basis points.

At 11.57%, the current DC average IRR is now the highest of all surveyed office markets, higher than average IRRs in both the national CBD office market (11.24%) and national suburban office market (11.10%). The Washington, DC average OAR is no longer among the lowest of surveyed office markets. It compares with 8.79% in the national CBD office market and 9.15% in the national suburban office market.

The new MCI Center sports arena is drawing interest downtown, and several projects are under way or proposed for the area. Ground was broken recently for the $650 million Washington Convention Center. The 2.1 million-square-foot center will include 44,000 square feet of retail, restaurants, and community spaces. In Gallery Place, an entertainment and retail complex, about half of the space will house a 5,000-seat, 22-screen movie theater; the other 230,000 square feet will be retail shops and restaurants. Resurgence of the area is a boon to the office submarket. "We're very enthusiastic about downtown," says one investor. Traffic flow is good, there is parking, and it is becoming a 24-hour destination. ■

Table 19
Washington, DC Office Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	10.00%–13.00%	10.00%–13.00%	10.00%–13.00%
AVERAGE	11.57%	11.50%	11.40%
CHANGE (Basis Points)	—	+7	+17
Overall Cap Rate (OAR)[a]			
RANGE	7.00%–11.00%	7.00%–11.00%	7.00%–11.00%
AVERAGE	9.17%	9.13%	8.93%
CHANGE (Basis Points)	—	+4	+24
Market Rent Change Rate[b]			
RANGE	0.00%–10.00%	0.00%–10.00%	0.00%–10.00%
AVERAGE	2.94%	3.00%	2.92%
CHANGE (Basis Points)	—	–6	+2
Expense Change Rate[b]			
RANGE	2.00%–4.00%	2.00%–4.00%	3.00%–4.00%
AVERAGE	3.23%	3.30%	3.58%
CHANGE (Basis Points)	—	–7	–35
Residual Cap Rate			
RANGE	8.00%–11.00%	8.00%–11.00%	8.00%–11.00%
AVERAGE	9.40%	9.41%	9.25%
CHANGE (Basis Points)	—	–1	+15

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

National Industrial Market

Interest in national industrial investments remains as steady as the market itself. Most participants in our Survey list industrial property as second only to offices or apartments as the most desirable property type. They continue to prefer bulk warehouse/distribution facilities, but they are increasingly more open to higher finished product. While it is difficult to find good deals on warehouses, there is an ample supply of R&D/flex product with 20% to 40% devoted to office use. These properties are relatively low-priced and they offer significant upside potential, but they also carry higher risk.

Institutional investors like to balance their portfolios with institutional-grade warehouses because of the nearly constant balance between supply and demand. The national industrial availability rate was 8.2% in the first quarter, according to CB Richard Ellis. For large industrial buildings, those over 100,000 square feet, the vacancy rate was 5.8%.

The rates may increase in the near-term, however. There has been a dramatic increase in construction over the past year. Although construction starts slowed in the second half of 1998, there were already a large number of projects in the pipeline near completion. In the first quarter 24.5 million square feet of industrial space were delivered. In addition, the likelihood of adding a certain number of projects now in the planning stage brings the total of new supply that will hit the industrial market over the next 18 months up to 122 million square feet, according to Donaldson, Lufkin & Jenrette Equity Research. This represents a 3.0% increase to existing stock, which could cause the national vacancy rate to rise by as much as 2.0%.

The markets that lead in potential excess of supply over demand include Atlanta, Fort Lauderdale, Nashville, Sacramento, Salt Lake City, and Seattle. The most promising markets, those where demand is greater than supply planned or under construction, include Houston, Phoenix, Richmond, and San Antonio.

Transaction activity is brisk. The West Coast is particularly active, but the bustle is primarily because a few sellers are selling a lot of properties, and some big portfolios are changing hands.

Prices in the national industrial market are stable, albeit at high levels. Institutional-grade warehouses remain above replacement cost, while lower-grade product is generally at replacement cost. R&D and flex properties are still generally below this marker. Across the market, prices range from 80.0% to 110.0% of replacement cost. The average is 98.0% of cost. Prices are expected to increase as much as 10.0% over the next 12 months; the average projected increase is 2.0%.

Key value indicators are shown in Table 20. The average discount rate (IRR) declined a negligible 1 basis point to 11.13%. The average overall cap rate (OAR) increased 1 basis point to 9.15%.

The risk of ownership of R&D/flex properties is higher than in the warehouse segment. This is evident in comparing rates for R&D/flex space with those for warehouse/distribution facilities. The range of IRRs for warehouses is from 9.50% to 12.50%; the average is 11.00%. The range of OARs is from 8.00% to 10.00%; the average is 9.01%. For R&D/flex properties, the range of IRRs is from 8.00% to 13.00%; the average is 11.54%. The range of OARs is from 8.00% to 12.00%; the average is 9.77%.

The Midwest, especially Chicago, is often named as a preferred market. Investors also like California, Northern New Jersey, Philadelphia, and Detroit. ■

Table 20
National Industrial Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	9.50%–12.50%	9.50%–12.50%	10.00%–12.50%
AVERAGE	11.13%	11.14%	11.20%
CHANGE (Basis Points)	—	–1	–7
Overall Cap Rate (OAR)[a]			
RANGE	8.00%–10.00%	8.00%–10.25%	8.00%–10.50%
AVERAGE	9.15%	9.14%	9.08%
CHANGE (Basis Points)	—	+1	+7
Market Rent Change Rate[b]			
RANGE	1.50%–6.00%	2.00%–6.00%	2.00%–6.00%
AVERAGE	3.32%	3.39%	3.61%
CHANGE (Basis Points)	—	–7	–29
Expense Change Rate[b]			
RANGE	1.50%–5.00%	1.50%–5.00%	1.50%–5.00%
AVERAGE	3.25%	3.28%	3.58%
CHANGE (Basis Points)	—	–3	–33
Residual Cap Rate			
RANGE	8.50%–10.50%	8.50%–11.00%	8.50%–10.00%
AVERAGE	9.53%	9.52%	9.27%
CHANGE (Basis Points)	—	+1	+26

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

National Apartment Market

People always need a roof over their heads, a fact that drives the apartment investment market. Apartments are a staple in institutional investors' portfolios, and despite current high prices, many investors are now more interested in this property type than any other.

There has been a massive amount of multifamily development in recent years, much of it concentrated in a few markets. Consequently, as some areas have become overbuilt while others remain tight, it is more difficult to make generalizations about the national apartment market.

The most sought after properties are those in markets with high barriers to entry. While Boston, Chicago, Minneapolis, and Seattle are all highly desirable, investors must be willing to pay high prices to be in these markets. Going-in cap rates are low, but investors believe that there is greater predictability of revenue growth than in other markets, and they expect to sell at low cap rates as well.

Austin and Atlanta are favorite markets in the Sunbelt. Despite some softness earlier in the development cycle, the apartment market in Austin has rebounded strongly, and demand forecasts are promising. Likewise, Atlanta, where concern about overbuilding made investors hesitant only one or two quarters ago, has experienced a substantial increase in occupancies over the past six to nine months. In addition, revenue growth has been strong. In Cobb and Fulton counties it has become much more difficult to find sites with multifamily zoning in place. Due to an abundance of zoned sites in the farther out areas of Gwinnett County, this submarket is still soft.

Investor interest in Dallas, where new construction has been unrestrained, is very limited. The same is true for Las Vegas. In both markets there has been so much development and there is so much competition from condos and affordable single-family homes, there is little potential for revenue growth. Other markets that receive a cool reception include Houston, Phoenix, Albuquerque, and Reno.

Construction has slowed in recent quarters in most markets nationwide. According to some participants, this is due to REIT withdrawal from development activity. The squeeze on their capital and its higher cost has limited their participation.

In last year's real estate price correction, apartments were the least affected of all property types. There is less price volatility in the apartment market because of the generally lower dollar amount of deals. There is a wide spread in prices in the national apartment market. Participants say that, overall, prices range from 75.0% to 120.0% of replacement cost. The average price is 95.9% of cost. Projected increases over the next 12 months are not large; the range is from 0.0% to 6.0%, with an average increase of 2.4%.

Key value indicators in the national apartment market are shown in Table 21. Both the average discount rate (IRR) and the average overall cap rate (OAR) increased slightly. The average IRR is up 3 basis points to 11.51%. This follows a 12-basis-point hike last quarter. The current rate is 25 basis points higher than in the year-ago quarter. The average overall cap rate (OAR) increased 3 basis points. At 8.86%, it is only 4 basis points higher than one year ago.

Investors believe that the demand for apartment investments is affecting cap rates. However, "if they blipped up at all, they blipped because of Class-B and C properties in second- and third-tier markets since the CMBS drop-off," says one participant who specializes in the national apartment market. "This reflects the question of liquidity on exit strategy and the higher risk of owning in some of these markets." ■

Table 21
National Apartment Market
SECOND QUARTER 1999

KEY INDICATORS	CURRENT QUARTER	LAST QUARTER	YEAR AGO
Discount Rate (IRR)[a]			
RANGE	10.00%–15.00%	10.00%–15.00%	10.00%–13.00%
AVERAGE	11.51%	11.48%	11.26%
CHANGE (Basis Points)	—	+3	+25
Overall Cap Rate (OAR)[a]			
RANGE	7.50%–11.00%	7.50%–11.00%	7.00%–11.00%
AVERAGE	8.86%	8.83%	8.82%
CHANGE (Basis Points)	—	+3	+4
Market Rent Change Rate[b]			
RANGE	0.00%–6.00%	0.00%–6.00%	0.00%–7.00%
AVERAGE	3.08%	3.08%	3.21%
CHANGE (Basis Points)	—	0	–13
Expense Change Rate[b]			
RANGE	2.00%–5.00%	2.00%–5.00%	2.00%–5.00%
AVERAGE	3.18%	3.16%	3.29%
CHANGE (Basis Points)	—	+2	–11
Residual Cap Rate			
RANGE	8.00%–10.50%	8.00%–10.50%	8.00%–10.25%
AVERAGE	9.22%	9.22%	9.28%
CHANGE (Basis Points)	—	0	–6

a. Rate on unleveraged, all-cash transactions
b. Initial rate of change

National Land Market

INTRODUCTION

Results of the Pricewaterhouse-Coopers LLP Real Estate Group mid-year national land investment survey indicate that the development land market has improved since the end of last year. The real estate investment party came to an end in the second half of 1998. Capital sources that had fueled the boom stepped back, and there was less money for investment in both buildings and development land. Regulators and lenders now exercise more caution, thus putting a damper on the high levels of land investment and development activity that were experienced in 1998.

The wait-and-see attitude that prevailed at the end of the year has been replaced by a more optimistic outlook. This is in part because interest rates have remained favorable, unemployment is at the lowest levels in three decades, and actual incomes are rising.

Nevertheless, the first two quarters of 1999 have been characterized by cautious advancement, drawdown of accumulated land inventories, completion of projects started, and flight to quality and to secure preapproved commercial projects. Only the residential development boom continues, with a backlog of orders.

The real estate investment community is showing increased interest in multiuse CBD projects and in housing in major markets. More housing is becoming "housing plus," as advances in broadband connectivity (ADSL- and cable modem-enabled internet) make more houses and apartments wired workplaces and shopping places, as well as residences.

There is evidence of more public-private growth management programs throughout the country. Traditional local and regional programs are increasing in number and sophistication. In addition, national nonprofit organizations such as the Sierra Club and Trust for Public Land are prompting activity at the federal level.

In most areas developers are paying more attention to working off accumulated land inventories than to expanding their inventories. There is greater pressure on REITs and public companies to generate immediate returns from their present land holdings rather than to add land inventory. Land assembly and investment continues in suburban markets that are experiencing increases in speculative commercial projects.

LOCATION

Not surprisingly, the strongest geographic areas are those with sound, broad-based economic conditions and those in which public policies and regulations have kept rates of growth and building within reasonable boundaries. Examples include the San Francisco Bay and Silicon Valley markets; metropolitan San Diego; and some parts of the metropolitan Boston, New York, and Washington, DC market areas. By contrast, overbuilding is increasingly evident in some Florida, Texas, and Southeast markets.

Other trends include:

- Supply and demand are in better balance in most geographical areas due to lenders' and regulators' caution against additional new development.
- In built-up markets, difficult sites are being developed to meet local demand.
- Land banking appears to have increased in the most desirable locations in the Southeast and West.

PROPERTY TYPES

Residential

In both apartment and single-family home projects, there is evidence of weakening of prices and longer sellout periods, even in traditionally strong housing markets such as California's Silicon Valley. As windows of development opportunity begin to close in individual markets, preapprovals and infrastructure commitments are becoming more critical to the success of projects.

Developers continue to incorporate multiple uses and additional features in an attempt to differentiate their product from competitors'. Particularly in Sunbelt locations, they combine resort and permanent residential housing. In all geographic areas, more projects are being built that appeal to senior citizens, including active-adult, lifestyle-retirement, and assisted-living facilities; nursing homes and retirement homes; and homes with senior citizen-friendly features. Developers of senior housing are looking at alternative locations such as college towns and resort locations. Conversion of existing downtown properties for senior living is on the upswing.

All segments of the housing industry have seen increased construction activity this year. Low interest rates have had a positive impact on the affordability index. Sales of luxury homes continue at a rapid rate, with a decreasing supply of available homes. The national average price and median price have increased approximately 6.0% during the first six months of the year in comparison to the first six months of 1998.

Timeshare and second home development have also increased. This trend is expected to continue into the next century as the baby boomers look for alternative lifestyles.

Hotel

In most markets the challenge for hotel developers is to find successful market niches in the midst of all the new construction that has taken place in the past year. Corporate cost consciousness and the increased popularity of "virtual meetings" are combining to moderate the growth of the business travel market segment. Development continues to gravitate toward “safe sites” — that is, sites in established multiuse projects and near seasoned and reliable demand generators. Developers in our survey indicate that only full-service, upscale hotels in very select markets should be developed at this time.

Retail

Retail presents a mixed picture, whether viewed from the functional or the geographic perspective. The 1998 holiday season marked the high point to date of internet retailing. The increased popularity of online retailing puts pressure on traditional retailers to be more productive. The failure of weaker discounters is matched by the steady penetration of strong sales-per-square-foot generators expanding into small and large communities.

In their search for untapped sources of shopping dollars, retailers are paying increased attention to inner-city land offerings in communities where strong public support of projects is assured. Also, in some first-tier suburbs (for example, in Northern New Jersey and on Long Island), older office complexes are being recycled into retail or multi-use projects. Retailers are continuing to try to “double load” their offerings with other uses that provide added incentive for shoppers to visit. Neighborhood shopping center development in select markets in close proximity to new residential developments is the most attractive retail product. It still provides respectable returns.

Entertainment-Oriented Retail

Many entertainment-oriented retail joint ventures that were initially announced in 1998 will reach the implementation stage this year. Some of these combine REIT investment with the financial strength, marketing power, and established brand names of the major international entertainment companies. They can be expected to provide strong competition to traditional retailers and mall operators as they continue their expansion in major downtown and suburban locations.

Industrial

While speculative construction in the industrial market segment has cooled since 1998, it continues in many suburban locations. There is also steady demand for land from companies that seek customized build-to-suit solutions for their unique space needs. Most notably, the technology industry has been aggressively expanding. Many companies are constructing state-of-the-art, customized complexes to replace older facilities in order to become more competitive and control costs.

The trend toward corporate sell-off of unneeded land and properties, which was noted in earlier land market reports, is becoming more prevalent.

There will be continuing redevelopment of older inner-city and first-tier suburban holdings. These include a wide variety of properties, such as former military bases, former rail yards, government properties, and major private holdings from earlier industrial eras. Some of these involve brownfield environmental issues. Government funding and other forms of public backing and investment can be critical to the success of such projects.

Office

Suburban office development continues, especially the building out of established multiuse communities, such as Las Colinas in the Dallas-Fort Worth area and Valencia in Southern California. Many projects are being sold upon completion. Also, projects in downtown areas are successful when they can build upon a strong preexisting base of diversified activity and incorporate security, safety, and public support. Build-to-suit office construction is still favored even though the overall returns are lower than returns on speculative endeavors. Spec office construction is still taking place in certain markets where rising vacancy rates are beginning to cause concern.

CAPITAL MARKETS AND DEVELOPMENT

REITs, public real estate companies, and CMBS suffered reverses in the second half of 1998, which weakened their roles as driving forces in land investment and development. Many Wall Street investors defected and are no longer supplying the capital required to fuel new construction, either directly or indirectly. These sources of investment capital are not likely to return to

Exhibit 1
Land Yield Survey
MIDYEAR 1999

	RANGE	MEDIAN
DCF Analysis		
Property Discount Rate (IRR)[a]	9.00%-30.00%	14.00%
Equity Discount Rate (IRR)[b]	20.00%-35.00%	24.00%
Gross Profit Analysis		
Gross Profit Margin[c]	5.00%-25.00%	14.00%
Markup over Project Costs	5.00%-60.00%	25.00%

a. Rate on unleveraged, all-cash transactions. b. Rate on leveraged transactions. c. As a percentage of total revenue.
Source: Survey performed by PricewaterhouseCoopers LLP Real Estate Group.

the land marketplace in a significant way anytime soon. This withdrawal of funds has affected the land investment climate negatively. Specifically, acquisitions of land by most REITs for development have been limited. This is likely to be a year of consolidations and portfolio rearrangements as REITs attempt to gain specialization advantages and squeeze out additional returns from existing holdings.

Capital inflows from traditional lenders, life insurance companies and banks, have been limited because spreads have not been attractive. Private investment pools have become additional sources of capital, and foreign investors have directed increasing amounts of their global portfolio allocations to the United States. However, the amounts involved are, and will continue to be, relatively small compared with the REIT and CMBS capital flows of recent years.

Most survey respondents have not had difficulty arranging financing for well thought out developments. The strongest and best capitalized developers with the soundest and most secure projects have survived the recent market shrinkage, and they will continue to prosper. The more marginal players have fared less well. Some of their projects will be salvaged by stronger or more skilled owners.

RETURN OUTLOOK

Rather than a year of dramatic new land investments and development projects, 1999 is shaping up as a year for caution and completion. There are some exceptions — uniquely situated commercial projects and residential developments — which have benefitted from the lowest interest rates of the decade. There is pressure on returns as developers compete for new projects in the strongest markets. Interest rates have begun to move up; this has some developers concerned that effective demand will be reduced. Today many developers prefer joint public-private partnerships that help them attract investment and hedge various risks.

The midyear summary of expected returns is presented in Exhibit 1. Expected unleveraged pretax returns (IRRs) range from 9.00% to 30.00%; the sample median is 14.00% for approved land development projects as well as build-to-suit and preleased projects. The low end of the range and the median are lower than the 1998 year-end results, indicating increased competition for desirable sites for development.

Our survey indicates a narrowing of expected gross profit margins and mark-up over project costs. The median gross profit margin dropped to 14.00% from 16.00% in the year-end 1998 survey. The median expected markup over project costs is unchanged at 25.00%. The highest expected returns continue to be on larger-scale, unapproved or unentitled developments, where unleveraged expected returns can exceed 60.00%. The average and median expected returns on these speculative developments is the same as in previous surveys.

Land cost as a percentage of total project cost continues to rise for desirable sites. The range of land cost as a percentage of total project cost is from 5.00% to 55.00% for approved sites; the median is 16.00%.

Office developers expect unleveraged returns from a low of 9.00% for build-to-suit projects to more than 30.00% for speculative developments; the average expected return is 15.00%. Returns on equity for leveraged sites range from 20.00% to more than 35.00% for speculative developments; the median expected return is 24.00%, as it was at year-end.

Home builders' ratios of lot price to finished home price continued to increase from the previous quarters because of continued demand for product. Expected leveraged equity returns have increased as well.

Developers are concerned that rising interest rates and the end of the current business cycle will have a negative impact on future returns on existing projects. Future acquisition prices may be affected as developers ponder the direction of the economy.

Note: Any comparison of this survey's results with those of the PricewaterhouseCoopers LLP's earlier surveys should be done with caution because the sample of respondents and questions may have changed. ■

The National Land report was prepared by PricewaterhouseCoopers LLP.

PRICEWATERHOUSECOOPERS

Midyear 1999 National Land Yield Survey

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by PricewaterhouseCoopers LLP during April 1999.

	REGION [a]	PROPERTY TYPES	METHOD TO CALCULATE RETURN	FREE & CLEAR OVERALL IRR (Y_0)	GROSS PROFIT (% OF REVENUE)	LINE ITEM FOR DEVELOPER PROFIT [b]
DEVELOPER Currently developing office buildings.	Midwest, East North Central	Suburban Office	DCF	15.00% to 20.00%	15.00%	Profit line: 8.0%
ADVISOR Currently developing several projects.	Pacific, Mountain	Suburban Industrial, Office, Retail	DCF	9.00%	—	Developer's fee: 5.0% Profit line: 10%
REAL ESTATE OPERATING COMPANY Currently developing suburban office properties and expects to buy land.	Mid-Atlantic	Suburban Office	DCF	15.00%	—	Developer's fee: 3.0%
REIT Constructing retail, suburban office, and apartments to hold.	South Central, South Atlantic	Suburban Projects	Several methods	10.50% to 12.50%	—	Developer's fee: 2.0% to 5.0%
DEVELOPER Concentrating on warehouse, distribution, and R&D facilities ranging from 150,000 to 200,000 square feet; does not expect to purchase additional land in 1999.	West	Warehouse/distribution, R&D, Retail	Return on cost	9.50% to 10.00%	—	Building cost: 5.0%
DEVELOPER Currently constructing various investments throughout the country; prefers industrial and R&D with leveraged returns greater than 20.00%; 30.00% return on land.	New England, Mid-Atlantic, South Atlantic, Mountain, Pacific	Various	DCF	>15.00%	25.00%	Developer's fee: 2.0% to 2.5%
SPECIALIZED REIT Investments in special-purpose properties, generally build-to-suit situations.	Mountain, South Atlantic	Health Related	DCF	>20.00%	—	Developer's fee: 3.0% to 5.0%
DEVELOPER Sells finished lots; currently selling residential lots in a strong market.	South Atlantic	Residential	DCF, Profit margin	15.00% to 20.00%	20.00%	Developers fee: 3.0% to 5.0%
APPRAISER Works with developers constructing homes in all price ranges.	Mid-Atlantic	Residential	DCF, Profit margin	15.00% to 25.00%	10.00% to 15.00%	—
PENSION FUND Developing apartments in various locations with approximately 150 units in suburban locations to hold.	West Coast, South Atlantic	Apartment	DCF	10.00% to 12.00%	—	Developer's fee: 3.0%

a. ACLI definitions.
b. As a percentage of gross revenue.

National Regional Mall Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
INVESTMENT ADVISOR ■ Forecast Period: 10 to 15 years Interested in dominant Class-A malls with strong anchored lineups and above-average trade area demographics; major emphasis on DCF but also looks at direct capitalization and price per square foot; uses face rents and reflects concessions as they occur.	Years 1-4 varies per market; 3.0% thereafter	3.0%	3.0%	7.50% to 10.00%	1.0% to 2.0%	10.00% to 12.00%	7.00% to 10.00%	9 to 12	60.0% to 75.0%	5.0% to 7.0% (nonanchor)	$0.15 to $0.25	6 to 12
INVESTMENT BANKER ■ Forecast Period: 10 years Relies on DCF (IRR) and direct capitalization (initial cap rates); does extensive sensitivity analysis on residual cap rates, growth rates, and initial market rents; retail sales based on historical and market analysis; typical sales growth per market per year is at the inflation rate (CPI); analysis of TIs is an important cash flow forecast item; believes market for malls is improving.	2.0% to 4.0%; varies per market	3.0%	3.0%	7.75% to 8.75% (Best); 8.75% to 10.25% (Most)	1.5%	10.00% to 11.00% (Best); 11.00% to 12.50% (Most)	7.00% to 8.50% (Best); 8.50% to 10.50% (Most)	3 to 4	70.0% to 75.0%	2.0% to 5.0%	Varies by mall	6 to 9
DOMESTIC PENSION FUND ■ Forecast Period: 10 to 12 years Buys free and clear; average IRR consists of a 6.5% to 7.0% real rate of return plus the inflation rate; the indicated growth scenarios help to determine sensitivity of investment to inflation; relies on DCF (IRR) and overall cap rates equally; uses face rents and reflects concessions when they are scheduled to occur.	Years 1-3 varies per market; thereafter at inflationary rate	2.0%/ 4.0%/ 6.0%	2.0%/ 4.0%/ 6.0%	7.50% to 8.00%	1.0%	10.50% to 11.00%	7.00% to 8.00%	3 to 4	70.0% to 75.0%	1.0% to 3.0%	$0.15	3 to 4
PENSION FUND ADVISOR ■ Forecast Period: 10 years Looks at DCF (IRR), direct capitalization (initial cap rates), and price per square foot; uses face rents and reflects concessions when they are scheduled to occur.	3.0% to 4.0%	3.0%	3.0%	9.00% to 10.50%	2.0%	11.50% to 12.50%	9.50%	6	50.0%	5.0%	$0.25	9 to 18
REIT ■ Forecast Period: 5 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI after capital replacement reserve; applies rollover vacancy of 1.5%; replacement reserve is dollar amount.	4.0%	3.0%	3.0%	8.00%	2.0%	12.00%	8.25%	2	75.0%	0.0%	—	3
REAL ESTATE ADVISOR ■ Forecast Period: 10 to 15 years Retail sales are based on historical and market analysis; typical sales growth initially flat, then increasing 3.0% to 5.0% per year in typical markets; relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; strives for realistic cash flow forecast; relationship of price to retail sales (1.0 to 1.5 times sales) is carefully analyzed; uses face rents.	2.0% to 3.0% initially; varies thereafter	3.5%	3.0% to 4.0%	8.50% to 9.50%	1.0% to 2.0%	10.75% to 12.25%	8.25% to 9.25%	4 to 6	60.0% to 70.0%	2.0% to 5.0%	$0.25 to $0.75	9
INVESTMENT ADVISOR ■ Forecast Period: 10 years Retail sales growth is based on historical performance and market analysis; very strong evidence is required to exceed 5.0% per year; spreads between A and B properties getting wider; prefers free and clear properties; uses all valuation techniques and correlates; does not rely on any one technique; looks for sale price to be 100% to 125% of sales volume; looks at components of NOI growth; uses face rents.	0.0% to 4.0%	3.5%	3.5%	7.50% to 9.00%	1.5%	10.00% to 11.00%	7.00% to 9.00%	2	60.0%	3.0% to 10.0%	$0.10	6 to 10

National Power Center Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; initial growth rates typically are between 0.0% and 3.5%; preference for infill locations with minimum land available and high barriers to entry; seeks very strong leases with "going dark" protection; 80.0%+ of overall return component should be generated by current income.	0.0% to 3.5%	3.5%	—	9.5%	2.0% to 2.5%	10.50% to 11.50%	10.00%	6 to 9 (nonanchors); 9 to 12 (anchors)	40.0% to 60.0%	0.0% to 3.0% (anchors); 6.0% (nonanchors)	$0.10 to $0.15	6 to 12
INVESTMENT BANKER ■ Forecast Period: 10 years Considers power center investments "coupon clipper" deals; uses both DCF and direct capitalization; focuses on West Coast; prefers urban areas with easy access and good anchor tenancy; credit is key; IRR is 10.25% to 11.50% on centers with good credit tenants.	4.0%	3.0% to 4.0%	4.0%	9.00% to 10.00%	2.0%	10.25% to 12.00%	8.00% to 10.00%	3 to 6	65.0% to 75.0%	5.0% to 10.0%	$0.10	6
INSTITUTIONAL INVESTOR ■ Forecast Period: 10 years Primarily interested in high-credit deals; uses both DCF and direct capitalization but focuses on IRR; develops IRR using tenants' bond rate plus 100 to 400 basis points for real estate related risks; lower IRRs are for high-credit deals with "bond" leases; uses present value analysis of effective rents.	2.0% to 3.5%; varies thereafter	2.0% to 3.5%	2.0% to 3.5%	9.50% to 10.00%	2.0% to 2.5%	10.50% to 11.25%	9.25% to 10.00%	3 to 6	50.0% to 60.0%	1.0% (anchors); 4.0 to 6.0% (nonanchors)	$0.15 to $0.25	6 to 9
INVESTMENT ADVISOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; credit of tenants is major determinant of rate; consolidations among anchors will cause continuing fallout vacancies; sees a smaller pool of investors for power centers than for regional malls.	0.0% to 4.0%	3.5%	3.5%	10.00% to 10.50%	1.5%	11.00% to 12.00%	9.75% to 10.50%	2 to 6	60.0%	5.0% to 10.0%	$0.10	6 to 12
INVESTMENT ADVISOR ■ Forecast Period: 5 to 10 years Uses both DCF and direct capitalization; applies OAR to NOI after capital replacement reserve deduction but before TIs and leasing commissions; views as credit deal; some growth assumed in cap rate; focuses on acquisitions in Florida.	3.0% to 4.0%	3.0% to 3.5%	3.0% to 3.5%	9.50% to 10.50%	2.0%	11.00% to 12.50%	9.00% to 10.00%	4 to 8	70.0% to 80.0%	3.0% to 5.0%	$0.15 to $0.25	4 to 8
INVESTOR-DEVELOPER ■ Forecast Period: 11 years Uses both DCF and direct capitalization; in direct cap, capitalizes cash flow after TIs, leasing commissions, and capital replacement reserve; in analyzing power centers with greater percentage of in-line space compared with big-box space, would likely apply a lower overall cap rate due to potential for increased income.	3.0%	3.0%	3.0%	10.00%	2.0%	12.00%	10.50%	3	66.0%	Actual; 5.0% noncredit tenants	$0.10 to $0.25	6 to 9
REALTY ADVISOR ■ Forecast Period: 5 to 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; typically does not invest in power centers due to low yields and no upside.	3.0%	3.0%	3.0%	9.00% to 9.50%	1.5% to 3.0%	10.25% to 10.50%	8.25% to 8.75%	Does not use	65.0%	5.0% to 8.0%	$0.10 to $0.25	6

National Strip Shopping Center Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
INVESTMENT ADVISOR ■ Forecast Period: 10 to 12 years Concerned about stability of anchor tenants; seeks centers with strong national anchors, low in-line tenant area components, and strong trade market area demographics; major emphasis on DCF, but also looks at direct capitalization and price per square foot; uses face rents.	Years 1-4 varies per market; 3.0% thereafter	3.0%	3.0%	9.50% to 12.00%	2.0% to 3.0%	11.00% to 13.00%	8.75% to 11.50%	6 to 12	50.0% to 70.0%	5.0% to 10.0% (nonanchor)	$0.15 to $0.25	6 to 12
INVESTMENT BANKER ■ Forecast Period: 10 years Does extensive sensitivity analysis on residual cap rates, growth rates, and initial market rents; retail sales based on historical and market analysis; initial cash return is more important than the IRR; TIs are an important cash flow forecast item.	Years 1–3 varies per market; 3.5% thereafter	3.0%	3.0%	8.75% to 11.00%	2.0%	10.50% to 14.00%	8.25% to 11.00%	4 to 8	60.0%	5.0% to 10.0% (noncredit tenants)	$0.15	4 to 12
DOMESTIC PENSION FUND ■ Forecast Period: 10 to 12 years Buys free and clear; average IRR consists of a 6.75% to 7.50% real rate of return plus the inflation rate; the indicated growth scenarios help to determine sensitivity of investment to inflation; relies on DCF (IRR) and overall cap rates equally; uses face rents and reflects concessions when they are scheduled to occur.	Years 1-3 varies per market; thereafter at inflationary rate	2.0%/ 4.0%/ 6.0%	2.0%/ 4.0%/ 6.0%	9.00% to 9.75%	2.0%	10.75% to 11.50%	8.75% to 9.75%	4 to 6	60.0% to 70.0%	5.0% (noncredit tenants)	$0.10 to $0.20	4 to 6
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Relies on DCF, also uses direct capitalization and price per square foot; residual cap rate may be developed through a second 10-year DCF analysis (years 11 to 20).	2.5% to 3.0%	2.5% to 3.0%	2.75% to 3.0%	9.50% to 11.00%	3.0%	10.00% to 12.00%	9.25% to 10.50%	6	50.0% to 70.0%	7.5% (nonanchor)	$0.10 to $0.20	—
REAL ESTATE ADVISOR ■ Forecast Period: 10 to 15 years Retail sales are based on historical and market analysis; typical sales growth is initially flat, then increasing 3.0% to 5.0% per year in typical markets and 7.0% per year in strong markets; relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; strives for realistic cash flow forecast, especially in market rent growth rate, retail sales growth rate, and credit loss; greater distinction is being made between A and B centers; great concern over stability of anchors; uses face rents.	0.0% to 3.0% initially; varies thereafter	3.5%	3.0% to 4.0%	9.75% to 10.75%	2.0% to 4.0%	11.00% to 12.50%	9.50% to 10.50%	6 to 8	50.0% to 60.0%	3.0% to 5.0%	$0.50	9
INVESTMENT ADVISOR ■ Forecast Period: 10 years Dominant grocer and other anchors are a must; infill locations with true supply constraints are important.	0.0% to 4.0%	3.5%	3.5%	9.25% to 10.50%	1.5%	11.00% to 13.00%	9.00% to 10.00%	2 to 4	50.0%	5.0% to 10.0%	$0.10 to $0.20	6 to 9
INSTITUTIONAL INVESTOR ■ Forecast Period: 10 years Invests primarily in 200,000- to 500,000-square-foot well-anchored community centers and good credit quality anchored power centers; relies on DCF; market rent growth rates vary according to supply-demand balance in specific market; applies rent spikes as warranted by market conditions and specific property; uses effective rents.	Varies per market until stabilized; thereafter at inflation rate	2.0% to 3.5%	2.0% to 3.5%	9.50% to 10.00%	2.0% to 3.0%	11.00% to 11.50%	9.50% to 10.50%	4 to 6	50.0% to 60.0%	1.0% to 3.0%	$0.10 to $0.20	6 to 9
INSTITUTIONAL INVESTOR ■ Forecast Period: 10 years Buys free and clear; interested in higher quality community centers; relies on DCF (IRR); uses direct capitalization as a check only; may apply rent spike if appropriate based on analysis of leases in place; uses face rents in model that allocates actual concessions when they are scheduled to occur; some development interest.	3.0%	3.0%	2.5%	9.75% to 10.25%	3.0% + any local tariffs	11.25% to 11.50%	9.75%	6 to 8	70.0%	6.0% to 8.0%	$0.10 to $0.20	6
MORTGAGE BANKER ■ Forecast Period: 10 years Relies on direct capitalization, shifting away from DCF; in DCF focuses on first 5 years of 10-year forecast period; uses face rents.	3.0%	3.0%	4.0%	9.50%	3.0%	11.00% to 13.00%	10.00%	3 to 8	70.0%	5.0%	$0.20 to $0.25	6

National CBD Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
INVESTMENT ADVISOR ■ Forecast Period: 10 to 15 years Prefers free and clear properties; uses rent spikes if appropriate based on demand and relationship of current rents to rents required to justify new construction; relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; uses face rents and reflects concessions when they are scheduled to occur.	Years 1–5 varies per market; 3.0% thereafter	3.0%	3.0%	8.50% to 10.00%	1.0% to 3.0%	10.25% to 12.00%	7.50% to 10.00%	6 to 12	50.0% to 75.0%	2.0% to 3.0%	$0.15 to $0.25	6 to 12
INVESTMENT BANKER ■ Forecast Period: 10 years Real cash on cash (after capital expenditures) more important than IRR; real interest in newer CBD buildings at 8.0% to 10.0% cash-on-cash rates; investor interest is increasing, more deals are coming to market, and prices are rising as capital seeks these deals.	3.0% to 5.0%	3.0%	3.0%	8.50% to 10.50%	2.0%	10.00% to 13.00%	7.50% to 10.00%	3 to 9	60.0% to 70.0%	3.0% to 5.0%	Varies	6 to 9
DOMESTIC PENSION FUND ■ Forecast Period: 10 to 12 years Buys free and clear; average IRR consists of a 6.0% to 7.0% real rate of return plus the inflation rate; the indicated growth scenarios help to determine sensitivity of investment to inflation; relies on DCF (IRR) and overall cap rates equally; use of face or effective rents varies with market.	Years 1-3 varies per market; at inflationary rate thereafter	2.0%/ 4.0%/ 6.0%	2.0%/ 4.0%/ 6.0%	8.75% to 9.25%	2.0%	10.50% to 11.50%	8.50% to 9.25%	6 to 9	60.0% to 70.0%	2.0% to 5.0%	$0.10 to $0.15	9 to 12
INVESTMENT ADVISOR ■ Forecast Period: 5 to 10 years Seeks a discount to replacement cost in recovering markets; uses face rents; in certain markets may apply rent spike in first three years.	0.0% to 7.0%	3.5%	3.5%	9.00% to 10.00%	1.0% to 3.0%	10.75% to 12.50%	7.50% to 9.00%	6 to 12	50.0% to 75.0%	3.0% to 7.0%	$0.20 to $0.40	6
REAL ESTATE ADVISOR ■ Forecast Period: 10 to 15 years Relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; uses face rents and reflects free rent and other concessions when they are scheduled to occur; placing additional emphasis on average cash-on-cash rates for years 1 to 5, 6 to 10, and then the average rate for 1 to 10, coupled with partitioning present values and placing greater weight on cash flow vs. residual; continuing caution.	0.0% to 5.0%	3.0% to 4.0%	3.0% to 4.0%	9.00% to 10.00%	2.0% to 4.0%	10.50% to 12.00%	8.50% to 9.50%	6 to 9	60.0% to 70.0%	3.0% to 5.0%	$0.20 to $0.50	12 to 18
INVESTMENT ADVISOR ■ Forecast Period: 10 years Prefers free and clear proprieties with joint venture partner and preferred return; uses all valuation techniques and correlates; does not rely on any one technique; looks at components of NOI growth; uses face rents.	0.0% to 8.0%	3.5%	3.5%	9.00% to 10.00%	1.5%	11.00% to 15.00%	8.00% to 11.00%	4 to 8	60.0%	5.0% to 10.0%	$0.20	6 to 12
PENSION FUND ADVISOR ■ Forecast Period: 10 years Relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; uses face rents.	3.0% to 4.0%	3.0%	3.0%	9.00% to 10.00%	2.0%	11.00% to 12.00%	8.75% to 10.00%	6 to 8	60.0%	5.0%	$0.15	6 to 12
DOMESTIC PENSION FUND ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; uses face rents and reflects concessions when they are scheduled to occur.	3.0% to 3.5%	3.0% to 3.5%	3.5%	8.00% to 9.50%	—	10.00% to 12.00%	7.50% to 9.50%	6 to 12	60.0% to 70.0%	1.0% to 3.0%	$0.10 to $0.25	6 to 12
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; applies a 4.0% to 8.0% rent spike in years 1 to 3 in select markets.	3.0% to 6.0%	2.0% to 3.0%	3.0%	9.00% to 11.00%	1.0% to 4.0%	10.00% to 12.00%	8.00% to 10.00%	3 to 12	50.0% to 70.0%	3.0% to 6.0%	$0.20 to $0.40	3 to 12

National Suburban Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

Respondent	CHANGE RATES: Market Rent	CHANGE RATES: Expenses	CHANGE RATES: CPI	RESIDUAL: Cap Rate	RESIDUAL: Selling Expense	DISCOUNT RATE (IRR): Free & Clear	OVERALL CAP RATE (OAR): Free & Clear	VACANCY ASSUMPTIONS: Months Vacant	VACANCY ASSUMPTIONS: Tenant Retention	VACANCY ASSUMPTIONS: Underlying Vacancy & Credit Loss	RESERVE: Per Square Foot	MARKETING TIME: Months
INVESTMENT ADVISOR ■ Forecast Period: 10 to 15 years Prefers free and clear properties; relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; total vacancy and credit loss including rollover vacancy is 5.0% to 10.0%; reflects actual rents and concessions.	Years 1-5 varies per market; 3.0% thereafter	3.0%	3.0%	8.50% to 10.00%	2.0% to 4.0%	10.25% to 12.00%	8.00% to 10.00%	6 to 12	50.0% to 75.0%	2.0% to 5.0%	$0.10 to $0.20	6 to 12
INVESTMENT BANKER ■ Forecast Period: 10 years Real cash on cash (after capital expenditures) more important than IRR.	Years 1-3 varies; 3.5% thereafter	3.0%	3.0%	8.50% to 10.50%	2.0%	10.50% to 12.50%	8.00% to 10.50%	6 to 9	65.0%	5.0% to 7.5%	$0.10 to $0.20	6 to 9
DOMESTIC PENSION FUND ■ Forecast Period: 10 to 12 years Buys free and clear; average IRR consists of a 6.5% to 7.5% real rate of return plus the inflation rate; the indicated growth scenarios help to determine sensitivity of investment to inflation; relies on DCF (IRR) and overall cap rates equally; use of face or effective rents varies with market.	Years 1-3 varies per market; thereafter at inflationary rate	2.0%/ 4.0%/ 6.0%	2.0%/ 4.0%/ 6.0%	9.00% to 9.25%	2.0%	10.50% to 11.50%	8.75% to 9.50%	6 to 9	60.0% to 70.0%	2.0% to 5.0%	$0.10 to $0.20	9 to 12
INVESTMENT ADVISOR ■ Forecast Period: 5 to 10 years Seeks a discount to replacement cost in recovering markets; in certain markets may apply spike in first three years; uses face rents.	3.5% to 7.0%	3.5%	3.5%	9.00% to 10.00%	2.0% to 3.0%	10.75% to 12.50%	7.50% to 9.00%	6 to 12	50.0% to 75.0%	5.0% to 10.0%	$0.20 to $0.40	6
REAL ESTATE ADVISOR ■ Forecast Period: 10 to 15 years Relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; uses face rents and reflects free rent and other concessions when they are scheduled to occur; placing additional emphasis on average cash-on-cash rates for years 1 to 5, 6 to 10, and then the average rate for 1 to 10, coupled with partitioning present values and placing greater weight on cash flow vs. residual; continuing caution.	2.0% to 5.0%	3.0% to 4.0%	3.0% to 4.0%	9.25% to 10.25%	2.0% to 4.0%	10.50% to 12.00%	8.75% to 9.75%	6 to 9	60.0% to 70.0%	3.0% to 4.0%	$0.20 to $0.50	12 to 18
INVESTMENT ADVISOR ■ Forecast Period: 10 years Prefers free and clear properties with joint venture partner and preferred return; uses all valuation techniques and correlates; does not rely on any one technique; looks at components of NOI growth; uses face rents.	0.0% to 8.0%	3.5%	3.5%	9.00% to 10.00%	1.5%	11.00% to 12.00%	8.50% to 10.00%	4 to 6	70.0%	2.0% to 5.0%	$0.10 to $0.20	6 to 9
PENSION FUND ADVISOR ■ Forecast Period: 7 years Relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; uses effective rents.	3.0%	3.0%	3.0%	9.00% to 10.50%	2.0% to 3.0%	11.00% to 12.00%	9.00% to 10.00%	6 to 12	60.0%	5.0%	$0.15 to $0.20	6 to 12
INVESTOR ■ Forecast Period: 5 to 7 years Relies on DCF and direct capitalization; selling expense capped at $150,000; uses face rents.	3.0% to 5.0%	3.0%	3.0%	8.50%	1.5%	10.00%	8.00% to 8.50%	4 to 6	70.0%	0.0%	$0.75	3 to 6
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Relies on DCF, also uses direct capitalization and price per square foot; initial market rent change rate for years 1 to 3 is a spike and is a function of the Torto-Wheaton forecast rent in individual markets; residual cap rate is in part developed through a second 10-year DCF analysis.	Varies per market	2.5% to 3.0%	2.75% to 3.0%	9.00% to 11.00%	3.0%	10.50% to 11.50%	9.00% to 10.50%	6	60.0% to 80.0%	5.0% to 7.0%	$0.10 to $0.20	—
INSTITUTIONAL INVESTOR ■ Forecast Period: 10 years Invests primarily in newer suburban office properties with credit quality tenants; relies on DCF; market rent growth rates vary according to supply-demand balance in specific market; applies rent spikes as warranted by market conditions and specific property; uses effective rents.	2.0% to 4.0%; varies thereafter	2.0% to 3.5%	2.0% to 3.5%	9.50% to 10.00%	2.0% to 3.0%	11.00% to 11.75%	9.00% to 9.75%	4 to 8	50.0% to 60.0%	1.0% to 3.0%	$0.15 to $0.20	6 to 7

Atlanta Office Market

INVESTOR SURVEY RESPONSES

SECOND QUARTER 1999

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
DEVELOPER ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI after capital replacement reserve deduction but before TIs and leasing commissions; uses face rents and reflects concessions when they are scheduled to occur.	2.5%	3.0%	3.0%	9.00%	2.5%	9.75% to 10.50%	9.50%	6 to 9	67.0%	7.0%	$0.15 to $0.20	—
INVESTMENT ADVISOR ■ Forecast Period: 10 years Relies on DCF; does not do a true direct capitalization approach but analyzes the implied year 1 overall cap rate based on NOI divided by value conclusion.	3.5%	3.5%	3.5%	9.50%	1.5% to 2.0%	11.00%	9.20% to 9.60%	2 on weighted basis	60.0%	4.0%	$0.10	—
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Uses both DCF and direct capitalization; uses face rents and allocates concessions when they are scheduled to occur; no longer applies rent spikes.	0.0% to 3.5%	3.0%	3.0%	9.25% to 9.50%	3.0%	11.25% to 11.50%	9.00% to 9.50%	6	65.0%	5.0% to 10.0%	$0.20 to $0.25	3 to 6
INVESTMENT ADVISOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; uses face rents and reflects concessions when they are scheduled to occur; concerned that construction activity could soften market.	0.0% to 2.0%	$8.00 per square foot	3.0%	9.50%	1.0%	10.00% to 11.00%	8.75%	6	65.0%	7.0%	$0.25	—
LIFE INSURANCE COMPANY ■ Forecast Period: 5 to 8 years Uses DCF and direct capitalization; relies on DCF; in direct cap, capitalizes NOI after capital replacement reserve but before TIs and leasing commissions; uses face rents and reflects concessions when they are scheduled to occur; also considers discount to replacement cost.	0.0% to 3.0%	3.0%	2.0%	9.50% to 11.00%	2.0%	11.00% to 12.00%	8.00% to 10.50%	6	60.0%	4.0%	$0.25	6 to 9
INVESTMENT ADVISOR ■ Forecast Period: 10 years Relies on DCF; typical management fees are 4.0%; typical leasing fees are 5.0% on new leases, 2.0% on renewals; typical TIs are $5.00 for new leases, $3.25 for renewals; uses face rents; structural vacancy	3.0%	3.0%	3.0%	9.25%	2.0%	12.00%	9.25%	0	75.0%	5.0%	$1.05	6 to 9

Chicago Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Relies on DCF; uses direct capitalization as a check only; real estate taxes are a major issue; prefers suburban markets; uses face rents and reflects concessions when they are scheduled to occur.	3.0%	3.0%	3.0%	8.00% to 10.00%	2.0% to 3.0%	9.29% to 11.80%	8.00% to 9.50%	3 to 6	60.0% to 75.0%	5.0%	$0.15 to $0.20	9 to 12
MORTGAGE BANKER ■ Forecast Period: 10 years Relies on DCF and uses direct capitalization as a test; cost, rent, and value per square foot are true "sanity tests"; real estate taxes are a big issue (usually more than 50.0% of property expenses); uses effective rents; geographic preferences are downtown and north suburban.	3.0% to 3.5%	3.0%	3.0%	9.25% to 9.50%	2.0%	11.00%	9.00%	6	70.0% to 75.0%	5.0%	$0.15	6 to 9
INSTITUTIONAL INVESTOR ■ Forecast Period: 5 years Relies on DCF; forecasts market rent at 6.0% year 1, 5.0% year 2, 4.0% year 3, and 3.0% thereafter; forecasts higher expenses in Cook County; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve.	4.0% years 1-3; 3.0% thereafter	$7.00 to $8.00 per square foot	3.0%	9.00% to 10.00%	1.0% to 3.0%	11.00% to 13.00%	8.50% to 9.50%	6	75.0%	1.0%	$0.20	6
INSTITUTIONAL INVESTOR ■ Forecast Period: 10 years Relies on DCF; market rent growth rates vary according to supply-demand balance in specific submarket; applies rent spikes as warranted by conditions and specific property; uses present value analysis of effective rents.	Varies per submarket until stabilized; thereafter at inflation rate	2.0% to 3.5%	2.0% to 3.5%	9.25% to 9.75% (Suburbs); 9.50% to 10.50% (CBD)	2.0% to 3.0%	11.00% to 12.00%	9.25% to 10.25%	3 to 9	50.0% to 60.0%	1.0% to 3.0%	$0.15 to $0.20	3 to 6 (Suburbs); 6 to 12 (CBD)
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Prefers suburban properties; uses both DCF and direct capitalization; relies on DCF; in direct cap, capitalizes NOI after capital reserve deduction but before TIs and leasing commissions; may apply rent spike on limited basis; uses effective rents.	3.0%	3.0%	2.5% to 3.5%	9.25%	2.5% to 3.0%	10.50% to 11.50%	9.00% to 9.50%	6	50.0%	7.0% to 10.0%	$0.15 to $0.20	9 to 12
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Buys suburban office properties only; uses DCF and direct capitalization; also looks at average 5-year cash-on-cash returns; applies 5.0% to 8.0% rent spike in years 1 to 3 in suburban markets with supply constraints, strong demand, limited new construction, and rents below level required to support new construction; uses face rents and allocates concessions when they are scheduled to occur; marketing time estimate is for properties that are "priced right."	4.0% to 5.0%	3.0%	3.0%	9.00% to 9.25%	3.0% to 4.0%	10.00% to 11.25%	8.50% to 9.50%	3 to 6	60.0% to 65.0%	5.0% to 10.0%	$0.20% to $0.25%	3 to 6
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; occasionally applies 7.0% to 9.0% rent spike for 1, 2, or 3 years on top-quality product in the strongest suburbs; buyers' market; uses face rents.	0.0% to 3.0% (CBD); 2.0% to 5.0% (Suburbs)	4.0%	—	9.25% to 9.50% (Suburbs); 10.00% (CBD)	2.0% to 2.5%	10.00% to 10.75%	10.00%	6 to 9 (Suburbs); 9 to 12 (CBD)	50.0% to 70.0%	3.0% to 7.0% (Suburbs); 5.0% to 10.0% (CBD)	$0.20% to $0.25%	9 to 12

Dallas Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Relies on DCF; also uses direct capitalization and sales comparison in CBDs; properties with upside command lower going-in cap rates; uses rent spikes.	3.0% (Suburbs); 0.0% years 1 and 2 (CBD); 3.0% thereafter	3.0%	3.0%	9.00% to 12.00%	1.5% to 5.0%	10.50% to 12.00% (Suburbs); 11.00% to 13.00% (CBD)	8.00% to 12.00%	6	70.0% (Suburbs); 60.0% (CBD)	10.0% (Suburbs); 15.0% (CBD)	1.0% of EGI	12
INVESTMENT ADVISOR ■ Forecast Period: 3, 5, and 10 years Relies on DCF and direct capitalization; there are no concessions and no free rent in this market; no longer applies rent spikes.	0.0% to 2.0%	4.0%	4.0%	8.50% to 9.50%	2.0%	10.50% to 11.50%	7.50% to 9.50%	6 to 9	60.0% to 75.0%	5.0%	$0.25	9
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Buys all cash; focuses on DCF analysis, then looks at cash-on-cash returns in years 2 to 5; looks at 5-year averages and cash-on-cash returns after leasing commissions, TIs, and reserves; also "goes above the line" to see true capitalization rate.	0.0% to 5.0%	3.0% to 4.0%	3.0% to 4.0%	9.25% to 10.25%	2.0% to 4.0%	11.00% to 12.50%	8.75% to 9.75%	4 to 7	60.0% to 70.0%	2.0% to 3.0%	$0.20 to $0.50	3 to 6
INVESTMENT ADVISOR ■ Forecast Period: 10 and 20 years Criteria for downtown and suburban submarkets vary widely; uses both DCF and direct capitalization; ties most expenses to CPI but projects others (e.g., utilities and real estate taxes) at higher rate; applies a 10.0% rent spike in years 1 through 3; uses effective rents.	4.0% to 10.0%	3.5% to 4.0%	3.5%	8.00% to 9.50%	2.0%	10.00% to 12.00%	8.00% to 11.00%	5	70.0%	5.0%	3.0% to 7.0% of EGI	6
REIT ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes cash flow after TIs, leasing commissions, and capital replacement reserve.	3.0% to 5.0%	3.0% to 4.0%	4.0%	9.00% to 10.00%	2.0% to 3.0%	11.25%	9.25% to 9.50%	6	65.0%	2.0%	$0.10 to $0.15	—
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Interest is in Dallas suburbs only; uses DCF and direct capitalization; applies rent spikes of 5.0% to 7.0% in years 1 to 3; uses face rents and allocates concessions when they are scheduled to occur; marketing time estimate is for properties that are "priced right."	3.0% to 4.0%	3.0%	3.0%	9.00% to 9.50%	2.0% to 4.0%	11.00% to 11.50%	8.75% to 9.25%	6	65.0%	5.0% to 10.0%	$0.20 to $0.25	4 to 9
LIFE INSURANCE COMPANY ■ Forecast Period; 5 to 8 years Uses DCF and direct capitalization; also looks at discount to replacement cost; relies on DCF; in direct cap, capitalizes NOI after capital replacement reserve but before TIs and leasing commissions; there are few concessions in this market, therefore face rent equals effective rent.	3.0%	2.5%	2.0%	9.00% to 11.00%	2.0%	11.00% to 12.00%	8.00% to 10.00%	6	60.0%	4.0%	$0.25	6

Houston Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Relies on DCF; also uses direct capitalization and sales comparison in CBDs; uses effective rents; properties with upside command lower going-in cap rates.	3.0% to 3.5% (Suburbs); 0.0% (CBD)	3.5%	3.5%	8.00% to 12.00%	1.5% to 5.0%	10.50% (Suburbs); to 12.50% (CBD)	8.00% to 12.00%	4 to 6	70.0% (Suburbs); to 60.0% (All others)	10.0% (Suburbs); to 12.0% (All others)	1.0% of EGI	12
INVESTMENT ADVISOR ■ Forecast Period; 3, 5, and 10 years Relies on DCF and direct capitalization; there are no concessions and no free rent in this market; applies 5.0% to 8.0% rent spikes in years 1 to 3 in suburban submarkets.	4.0% to 8.0%	4.0%	4.0%	9.00% to 10.50%	2.0%	10.50% to 12.00%	8.50% to 11.00%	6 to 9	60.0% to 75.0%	5.0%	$0.25	9
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Buys all cash; focuses on DCF analysis, then looks at cash-on-cash returns in years 2 to 5; looks at 5-year averages and cash-on-cash returns after leasing commissions, TIs, and reserves; also "goes above the line" to see true capitalization rate.	2.0% to 5.0%	3.0% to 4.0%	3.0% to 4.0%	9.25% to 10.25%	2.0% to 4.0%	11.25% to 12.75%	9.00% to 10.00%	4 to 7	60.0% to 70.0%	2.0% to 3.0%	$0.20 to $0.50	3 to 6
INVESTMENT ADVISOR ■ Forecast Period: 10 and 20 years Criteria for downtown and suburban submarkets vary widely; uses both DCF and direct capitalization; ties most expenses to CPI but projects others (e.g., utilities and real estate taxes) at higher rate; uses effective rents.	2.0% to 8.0%	4.0%	4.0%	8.00% to 9.50%	2.0%	10.00% to 12.00%	8.00% to 11.00%	5	70.0%	5.0%	3.0% to 7.0% of EGI	6
PRIVATE INVESTOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes cash flow after TIs, leasing commissions, and capital replacement reserve.	0.0% Years 1-2; 3.0% thereafter	3.0%	2.0%	10.00%	2.0%	12.00%	—	6	70.0%	1.0%	$0.10	6
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Interest is in Houston suburbs only; uses DCF and direct capitalization; applies rent spikes of 5.0% to 7.0% in years 1 to 3; uses face rents and allocates concessions when they are scheduled to occur; marketing time estimate is for properties that are "priced right"; still some concern over cyclical nature of economy.	4.0% to 5.0%	3.0%	3.0%	9.25% to 9.75%	2.0% to 4.0%	11.25% to 11.75%	9.00% to 9.50%	3 to 6	65.0%	5.0% to 10.0%	$0.20 to $0.25	4 to 9
LIFE INSURANCE COMPANY ■ Forecast Period; 5 to 8 years Uses DCF and direct capitalization; also looks at discount to replacement cost; relies on DCF; in direct cap, capitalizes NOI after capital replacement reserve but before TIs and leasing commissions; uses face rents and reflects concessions when they are scheduled to occur.	2.0% to 4.0%	3.0% to 4.0%	2.0%	9.50% to 11.00%	2.0%	10.50% to 13.50%	8.00% to 10.00%	6	60.0%	4.0%	$0.25	6 to 9

Los Angeles Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
PENSION FUND ADVISOR ■ Forecast Period: 7 to 10 years Relies on DCF; looks at value indicated by direct capitalization; uses face rents and applies concessions when projected to occur; does not tie income or expenses directly to CPI.	2.5% to 6.0%	3.0% to 4.0%; taxes 2.25%	2.5% to 3.0%	9.00% to 10.00%	2.0% to 3.0%	11.00% to 13.00%	9.00% to 10.00%	4 to 7	65.0% to 75.0%	5.0% to 8.0%	$0.10 to $0.20	6 to 8
REAL ESTATE ADVISOR ■ Forecast Period: 5, 7, and 10 years Buys turnaround situations as well as rotational plays in suburban markets; uses both DCF and direct capitalization; relies on DCF; applies 4.0% to 10.0% rent spike in years 1 to 2 in submarkets where there is evidence that they will occur; uses face rents in DCF model, net effective rents in direct capitalization.	4.0% to 6.0%	4.0%	3.0%	8.00% to 10.00%	1.5% to 2.0%	11.00% to 13.00%	8.00% to 10.00%	2 to 12	65.0%	8.0% to 10.0%	$0.30 to $1.00	6
INVESTMENT BANKER ■ Forecast Period: 10 years Uses DCF (IRR), direct capitalization (initial cap rates), and price per square foot; does extensive sensitivity analysis and correlates all value indications; uses face rents; IRRs for Class-A properties are 10.00% to 13.00%; investors looking at IRRs again; cash on cash is important, but perceived improvement in market is more important.	4.0% to 5.0%	3.0% to 4.0%	3.0% to 4.0%	9.00% to 10.00%	2.0%	10.50% to 14.00%	7.00% to 10.00%	4 to 6	65.0% to 75.0%	5.0% to 10.0%	Does not use	6 to 9
INVESTMENT ADVISOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; applies rent spike in years 1 and 2 in certain submarkets; uses face rents and reflects concessions when they are scheduled to occur.	5.0%	3.0%	3.0%	9.00%	2.0%	10.50% to 11.00%	9.00%	8	70.0%	5.0%	$0.20	—
INVESTMENT ADVISOR ■ Forecast Period: 3 to 7 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; uses face rents and reflects concessions when they are scheduled to occur.	3.5%	3.0%	3.0%	9.00% to 10.00%	1.0% to 5.0%	12.50%	9.00% to 10.50%	6 to 9	65.0% to 75.0%	5.0%	$0.10 to $0.15	4 to 6
INSTITUTIONAL INVESTOR ■ Forecast Period: 3 to 5 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI after capital replacement reserve deduction but before TIs and leasing commissions.	3.0% to 5.0%	3.0%	4.0%	8.50% to 9.50%	2.0% to 5.0%	12.00% to 14.00%	8.00% to 9.00%	6	75.0%	5.0%	$0.15 to $0.20	3
INVESTOR ■ Forecast Period: 5 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; typically looks for Class-A, 150,000-square-foot and larger properties in Tier 1 locations; likes opportunities for turnaround, repositioning, and select renovation projects.	4.0% to 5.0%	3.0% to 3.5%	2.5%	9.50%	1.5%	12.00%	8.00%	4	70.0% to 75.0%	3.0% to 4.0%	$0.10 to $0.15	4 to 6
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Relies primarily on DCF; also uses direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; applies 4.0% to 5.0% rent spike in year 1 and/or 2 in certain West Los Angeles submarkets.	3.0% to 4.0%	3.0%	3.0%	8.50% to 11.00%	1.5% to 4.0%	10.25% to 12.00%	8.00% to 10.50%	6 to 12	50.0% to 60.0%	3.0% to 4.0%	$0.20 to $0.25	4 to 9

Korpacz

Manhattan Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
INVESTMENT BANKER ■ Forecast Period: 10 years Strongest interest is in Midtown; 7.0% to 10.0% rent spike in Class-A buildings in Midtown.	5.0% years 1-3; 3.5% thereafter	3.0%	3.0%	8.00% to 10.00%	2.5%	10.00% to 12.00%	7.50% to 10.00%	6 to 12	65.0%	3.5% to 7.0%	Varies	6 to 9
DOMESTIC PENSION FUND ■ Forecast Period: 10 to 12 years Buys free and clear; average IRR consists of a 6.5% to 7.5% real rate of return, plus the inflation rate used on market rent. The three indicated growth scenarios help to test the sensitivity of investment to inflation; relies on DCF (IRR); NYC reassessment at 45.0% of sale price with five-year phase-in and 2.0% tax rate increase beginning after phase-in; use of face or effective rents varies by submarket.	2.0% years 1-2; inflation thereafter	2.0%/ 4.0%/ 6.0%	2.0%/ 4.0%/ 6.0%	8.00% to 9.00%	1.0% to 6.0%	10.50% to 11.50%	8.25% to 9.25%	6 to 9	60.0% to 70.0%	2.0% to 5.0%	$0.10 to $0.20	9 to 12
PENSION FUND ADVISOR ■ Forecast Period: 10 years Reflects NYC reassessment at 40.0% to 45.0% of sale price with tax rate increases of 5.0% per year; looks at DCF, direct capitalization (initial cap rates), and price per square foot.	3.0%	3.0%	3.0%	9.00% to 10.50%	1.0% to 2.0%	11.00% to 12.50%	8.50% to 10.00%	6 to 9	60.0%	5.0%	$0.10 to $0.15	12 to 18
REAL ESTATE ADVISOR ■ Forecast Period: 10 to 12 years NYC reassessment at 38.0% to 45.0% of sale price with five-year phase-in; very concerned about NYC's assessment practices; relies on DCF (IRR), direct capitalization, and price per square foot; emphasis on cash-on-cash rates; more realistic credit loss, downtime, free rent, TIs, and annual capital reserve; uses face rents and reflects concessions when they are scheduled to occur; applies 5.0% to 7.0% rent spike in years 3 to 4 in selected Downtown submarkets; more concerned with the resale estimate.	3.0% to 4.0% (Midtown); 0.0% initially, then 2.0% to 4.0% (Downtown older product)	3.0% to 4.0%	3.0% to 4.0%	8.75% to 9.75%	2.0% to 4.0%	10.50% to 12.00%	8.50% to 9.50%	6 to 12	60.0% to 70.0%	1.0% to 3.0%	$0.20 to $0.50	6 to 12
INVESTMENT ADVISOR ■ Forecast Period: 10 years Prefers free and clear, reflects NYC reassessment at 40.0% to 45.0% of sale price with five-year phase-in and increase of tax rates at 5.0% per year; does not place primary reliance on any technique; uses all and correlates; also looks at components of NOI growth; uses face rents.	4.0%	3.5%	3.5%	8.50% to 9.50%	1.5%	11.00% to 12.00%	8.50% to 10.00%	4 to 6	65.0%	5.0% to 10.0%	$0.10 to $0.20	9 to 12
INVESTMENT ADVISOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital reserve; uses face rents and reflects concessions when they are scheduled to occur; foreign investors continue to have an interest in Manhattan office buildings.	3.5%	3.5%	3.5%	9.00% to 10.00%	1.0% to 3.0%	10.75% to 12.50%	8.00% to 10.00%	9 to 12	50.0% to 70.0%	3.0% to 7.0%	$0.40	9 to 12
REAL ESTATE ADVISOR ■ Forecast Period: 5, 7, and 10 years Uses both DCF and direct capitalization; relies on DCF; uses face rents in DCF model, net effective rents in direct capitalization; prefers Downtown and Times Square.	4.0% to 6.0%	4.0%	3.0%	8.00% to 10.00%	1.5% to 2.0%	11.00% to 13.00%	8.50% to 10.50%	2 to 18	60.0%	8.0% to 14.0%	$0.30 to $1.00	10
LIFE INSURANCE COMPANY ■ Forecast Period: 10 to 12 years Uses both DCF and direct capitalization; in direct cap, capitilizes NOI before TIs, leasing commissions, and capital replacement reserve.	3.0% to 5.0%	3.0%	3.0%	9.00% to 9.50%	1.0% to 2.0%	9.75% to 10.25%	8.00% to 9.00%	4 to 5	60.0% to 70.0%	5.0%	$0.15 to $0.25	3 to 6

Pacific Northwest Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; preference for DCF; interested in both CBD and suburban properties in both Seattle and Portland; uses face rents.	5.0%	3.0%	—	9.00% to 9.50%	2.0% to 2.5%	11.50%	9.50% to 10.00%	6	60.0% to 70.0%	5.0%	$0.20 to $0.25	9 to 12
INVESTOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; there are no concessions in this market; rental rates continue to rise in Puget Sound market area; vacancy rate continues to drop; prefers Puget Sound area and Spokane, Washington.	8.0%	3.0%	3.0%	8.50% to 10.00%	3.0%	10.75% to 12.00%	8.50% to 11.00%	3 to 9	75.0% to 80.0%	0.0% to 4.0%	Does not use	6 to 12
INVESTMENT BANKER ■ Forecast Period: 10 years Uses DCF (IRR), direct capitalization, and price per square foot; does extensive sensitivity analysis; reliance is on projections and IRRs; uses face rents.	4.0%	4.0%	4.0%	9.00% to 10.00%	2.0%	10.00% to 13.00%	8.00% to 10.00%	3 to 6	65.0% to 70.0%	5.0% to 10.0%	Does not use	6 to 9
INVESTMENT ADVISOR ■ Forecast Period: 10 years Uses primarily DCF; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; applies rent spike in year 1 in certain submarkets; uses face rents and reflects concessions when they are scheduled to occur.	3.0%	3.0%	3.0%	9.00% to 9.50%	4.0%	10.50% to 11.00%	8.25%	6	65.0%	2.0% to 5.0%	$0.15 to $0.20	6
INVESTOR ■ Forecast Period: 5 to 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, capital replacement reserve; dropping rent spikes because the market has already moved.	Varies	2.0% to 4.0%	1.5% to 2.5%	9.50% to 10.50%	3.0% to 5.0%	10.00% to 13.00%	8.75% to 10.00%	6	75.0%	5.0%	$0.20 or 2.0% of EGI	3 to 6
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; relies on DCF; in direct cap, capitalizes NOI after capital reserve deduction but before TIs and leasing commissions; uses effective rents.	2.5%	3.0%	2.5% to 3.5%	9.25%	2.5% to 3.0%	10.50% to 11.50%	9.25%	6 to 9	50.0%	7.0% to 10.0%	$0.15 to $0.20	6 to 9
INSTITUTIONAL INVESTOR ■ Forecast Period: 10 years Buys free and clear; interested in attractive, well-located Class-A properties; relies on DCF (IRR); uses direct capitalization as a check only; may apply a 5.0% to 8.0% rent spike if justified by submarket conditions and specific property; uses face rents in model that allocates actual concessions when they are scheduled to occur; underlying vacancy and credit loss may be lower based on current occupancy, leases in place, and rollover risk.	4.0% to 5.0%	3.75%	2.5%	9.25% to 9.75%	3.0% + any local tariffs	11.00% to 11.50%	8.75% to 9.50%	6	70.0%	5.0% to 6.0%	$0.25 to $0.50	6

San Francisco Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
INVESTMENT ADVISOR ■ Forecast Period: 5 to 10 years Relies on DCF; applies rent spike in years 1 to 3; typical management fees are 3.0%; typical leasing fees are $9.00 on new leases, $4.50 on renewals; typical TIs are $15.00 for new leases, $9.75 for renewals; structural vacancy has been reached in this market.	8.00%	3.0%	3.0%	8.25% to 8.75%	1.0%	10.00% to 10.50%	8.50%	2	75.0%	5.0%	$0.10 to $0.25	3 to 6
PENSION FUND ADVISOR ■ Forecast Period: 7 and 10 years Uses DCF and direct capitalization but relies on DCF; uses face rents and reflects actual concessions when scheduled to occur; market rent growing faster than CPI; no longer applies a rent spike.	4.0% to 6.0%	3.0% to 4.0%; taxes 2.0%	3.0% to 3.5%	8.00% to 9.50%	1.0% to 2.0%	10.50% to 12.00%	7.50% to 8.50%	5 to 8	60.0% to 70.0%	3.0% to 5.0%	$0.10 to $0.20	6 to 9
REAL ESTATE ADVISOR ■ Forecast Period: 5 to 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; no longer applies rent spike; uses face rents and reflects concessions when they are scheduled to occur; is placing greater focus on rents in place.	1.0%	4.0%	4.0%	8.50% to 9.50%	1.0% to 1.5%	10.50% to 11.00%	7.50% to 9.00%	6	70.0%	5.0%	$0.15 to $0.25	6 to 9
REAL ESTATE ADVISOR ■ Forecast Period: 5 and 10 years Buys turnaround situations as well as rotational plays in suburban markets; uses both DCF and direct capitalization; relies on DCF; applies 4.0% to 10.0% rent spike in years 1 through 3 in submarkets where there is evidence that they will occur; uses face rents in DCF model, net effective rents in direct capitalization.	0.0% to 10.0%	4.0%	3.0%	8.00% to 10.00%	1.5% to 2.0%	10.50% to 13.00%	8.00% to 11.00%	2 to 18	60.0% to 65.0%	0.0% to 6.0%	$0.30 to $1.00	3 to 6
DOMESTIC PENSION FUND ■ Forecast Period: 10 years Prefers CBD; uses both DCF and direct capitalization; projects a 5.0% to 8.0% rent spike for CBD buildings in years 1 and 2; uses face rents and reflects concessions when they are scheduled to occur.	3.0% to 4.0%	3.5%	3.5%	8.50% to 9.50%	1.0% to 2.0%	10.00% to 11.50%	7.50% to 9.00%	8 to 10	60.0% to 70.0%	1.0% to 3.0%	$0.10 to $0.25	6 to 12
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; forecasts expenses at 100% of projected CPI; no longer applies a rent spike.	0.0% to 5.0%	3.0%	3.0%	9.00% to 9.50%	1.5% to 4.0%	10.00% to 11.25%	7.00% to 9.00%	3 to 10	60.0% to 70.0%	1.5% to 5.0%	$0.20 to $0.30	3 to 6

Southeast Florida Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
REIT ■ Forecast Period: 5 and 10 years Entrepreneurial buyer looking to buy going-in yield or value-added opportunities; uses price per square foot, stabilized cap, and 10-year DCF as checks; no longer uses rent spikes in this market; uses face rents and reflects concessions when they are scheduled to occur.	2.0% to 3.0%	2.0% to 3.0%	2.0% to 3.0%	10.00% to 11.00%	2.0%	11.00% to 12.00%	10.00% to 12.00%	6	65.0%	5.0%	$0.20	6
INVESTMENT ADVISOR ■ Forecast Period: 5 to 10 years Relies on DCF and direct capitalization; contract rents above market are reduced to market for pricing; market is improving; Miami's Airport West, downtown, and Brickell Class-A markets are very strong; uses effective rents.	5.0% to 7.0% years 1-3; 4.0% thereafter	3.0% to 3.5%	3.0% to 3.5%	9.50% to 10.00%	2.0%	10.50% to 12.00%	8.50% to 10.00%	4 to 8	75.0% to 80.0%	5.0% of noncredit space	$0.15	4
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Uses DCF only; applies rent spike in years 1 and 2 in most submarkets, amount is determined on a case-by-case basis.	3.0%	3.0%	3.0%	9.25% to 9.50%	2.0% to 4.0%	10.50% to 11.75%	—	3 to 6	70.0%	6.0% to 10.0%	$0.20 to $0.30	6 to 9
DOMESTIC PENSION FUND ■ Forecast Period: 3, 5, 7, and 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI after capital replacement reserve but before TIs and leasing commissions; uses effective rents after all concessions are extracted; applies 5.0% to 10.0% rent spike in early years; target IRR is 12.00%+ on development deals.	3.0% to 5.0%	3.0%	3.0%	9.00% to 10.00%	2.0%	10.50% to 12.00%+	9.00%+	6 to 9	70.0% to 75.0%	5.0%	$0.10 to $0.20	Varies
LIFE INSURANCE COMPANY ■ Forecast Period: 5 to 8 years Uses DCF and direct capitalization; also looks at discount to replacement cost; relies on DCF; in direct cap, capitalizes NOI after capital replacement reserve but before TIs and leasing commissions; uses face rents and reflects concessions when they are scheduled to occur; typical concessions still include three to six months free rent and generous TIs.	3.0%	3.0% to 4.0%	2.0%	9.50% to 11.00%	2.0%	11.00% to 12.00%	8.00% to 10.00%	6	60.0%	4.0%	$0.25	6 to 9
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Interested in properties that are "value added" opportunities; uses both DCF and direct capitalization; occasionally applies 5.0% to 7.0% rent spike in year 3 or 4 in some markets; uses face rents and reflects concessions when they are scheduled to occur.	2.0% to 5.0%	3.5%	—	9.50%	2.0% to 2.5%	10.00% to 10.50%	9.50% to 10.00%	6 to 9	50.0% to 70.0%	5.0% to 7.0%	$0.20 to $0.25	9 to 12
LIFE INSURANCE COMPANY ■ Forecast Period: 10 years Relies on DCF; also uses direct capitalization and sales comparison approaches as secondary analytical tools; uses face rents; use of rent spikes is minimal but may apply in year 1; amount of spike is determined on a case-by-case basis.	3.0%	3.0%	3.0%	9.25% (Class A) to 10.50% (Class B)	2.0% to 4.0%	10.75% to 11.75%	9.00% to 9.50%	3 to 6	70.0%	8.0% to 12.0%	$0.20 to $0.30	6 to 24

Washington, DC Office Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
INVESTMENT BANKER ■ Forecast Period: 10 years Active market; little new construction except for build-to-suit; vacancy rate declining; uses face rents; underlying vacancy and credit loss includes rollover vacancy; prefers Golden Triangle and East End submarkets.	3.5%	3.0%	3.0%	8.00% to 9.00%	2.0%	10.00% to 11.50%	7.00% to 9.00%	8	75.0%	2.0% to 5.0%	$0.10 to $0.20	6
DOMESTIC PENSION FUND ■ Forecast Period: 10 to 12 years Buys free and clear; average IRR consists of a 7.0% to 7.5% real rate of return plus the inflation rate; the indicated growth scenarios help to determine the sensitivity of investment to inflation; relies on DCF (IRR) and cap rates equally; use of face or effective rents varies by submarket.	0.0% for period of years; then 3%, 5% spike + inflation	2.0%/ 4.0%/ 6.0%	2.0%/ 4.0%/ 6.0%	8.00% to 9.00%	1.0% to 2.0%	11.00% to 11.50%	8.00% to 9.00%	6 to 9	60.0% to 70.0%	2.0%	$0.10 to $0.20	6 to 9
INSTITUTIONAL INVESTOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; prefers CBD and East End.	3.0% to 3.5%	3.0%	3.0%	10.00%	2.5%	12.00% to 13.00%	10.00%	6	70.0%	5.0% to 6.0%	$0.20	6
REAL ESTATE ADVISOR ■ Forecast Period: 5 and 10 years Buys turnaround situations as well as rotational plays in the suburbs; uses both DCF and direct capitalization; relies on DCF; applies 4.0% to 10.0% rent spikes in years 1 and 2 where there is evidence that they will occur; uses face rents in DCF model, net effective rents in direct capitalization.	0.0% to 10.0%	4.0%	4.0%	8.00% to 11.00%	1.5% to 2.0%	11.00% to 13.00%	8.00% to 11.00%	2 to 18	65.0%	8.0% to 14.0%	—	3 to 6
INVESTMENT ADVISOR ■ Forecast Period: 10 years Prefers free and clear properties with joint venture partner and preferred return; uses all valuation techniques and correlates; does not rely on any one technique; looks at components of NOI growth; uses face rents.	0.0% to 3.0%	3.5%	3.5%	8.50% to 10.00%	1.5%	11.00% to 12.50%	8.50% to 10.00%	4 to 6	60.0%	5.0% to 10.0%	$0.10 to $0.20	6 to 9
PENSION FUND ADVISOR ■ Forecast Period: 7 years Relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; uses effective rents.	3.0%	3.0%	3.0%	9.00% to 10.25%	2.0% to 3.0%	11.00% to 12.50%	8.75% to 9.50%	6 to 12	60.0%	2.0% to 3.0%	$0.15 to $0.20	12 to 18
INVESTOR ■ Forecast Period: 3 to 5 years and 10 years Uses DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; uses face rents and reflects concessions when they are scheduled to occur.	3.0% to 3.5%	3.0%	3.0%	10.00% to 10.50%	3.0%	11.00% to 13.00%	9.00% to 11.00%	6	60.0% to 70.0%	5.0% to 10.0%	$0.15 to $0.25	6 to 9
INSTITUTIONAL INVESTOR ■ Forecast Period: 10 years Relies on DCF; market rent growth rates vary according to supply-demand balance in specific submarket; applies rent spikes as warranted by market conditions and specific property; uses present value analysis of effective rents.	Varies per submarket until stabilized; thereafter at inflation rate	2.0% to 3.5%	2.0% to 3.5%	9.00% to 10.00%	2.0% to 3.0%	11.00% to 11.75%	9.00% to 9.75%	3 to 6	50.0% to 60.0%	1.0% to 3.0%	$0.10 to $0.20	3 to 9

National Industrial Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES			RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	VACANCY ASSUMPTIONS			RESERVE	MARKETING TIME
	Market Rent	Expenses	CPI	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Months Vacant	Tenant Retention	Underlying Vacancy & Credit Loss	Per Square Foot	Months
INVESTMENT ADVISOR ■ Forecast Period: 10 to 15 years Prefers free and clear properties; relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; total vacancy and credit loss including rollover vacancy is 5.0% to 7.0%; uses actual rents and reflects concessions as they occur.	Years 1-3 varies per market; 3.0% thereafter	3.0%	3.0%	8.50% to 10.00%	2.0% to 4.0%	10.50% to 12.00%	8.00% to 10.00%	6 to 12	60.0% to 70.0%	2.0% to 3.0%	$0.10 to $0.15	6 to 9
PENSION FUND ADVISOR ■ Forecast Period: 10 years Prefers to buy free and clear; uses all valuation techniques.	3.0%	3.0%	3.0%	9.25% to 10.25%	2.0% to 3.0%	11.00% to 11.50%	8.75% to 9.50%	6 to 9	60.0%	5.0%	$0.15	6 to 9
INVESTMENT ADVISOR ■ Forecast Period: 10 years Prefers free and clear; relies on direct capitalization (initial cap rates), price per square foot, and DCF (IRR) and equity cap rates equally; hard to find in bulk (250,000 square feet or more); uses face rents.	2.0% to 4.0%	3.5%	3.5%	9.00% to 10.00%	1.5%	11.00% to 12.00%	8.50% to 9.50%	4 to 6	65.0%	4.0% to 8.0%	$0.10 to $0.15	6 to 9
DOMESTIC PENSION FUND ■ Forecast Period: 10 to 12 years Strongest market; buys free and clear only; average IRR consists of a 7.0% to 7.5% real rate of return, plus the inflation rate; the three indicated growth scenarios help to determine sensitivity of investment to inflation; relies on DCF (IRR) and initial cap rates equally; use of face or effective rents varies by market.	Years 1-3 varies per market; thereafter at inflationary rate	2.0%/ 4.0%/ 6.0%	2.0%/ 4.0%/ 6.0%	9.00% to 9.50%	2.0%	11.00% to 11.50%	9.00% to 10.00%	6 to 9	60.0%	2.0% to 5.0%	$0.10 to $0.20	6 to 9
REAL ESTATE ADVISOR ■ Forecast Period: 10 to 12 years Good market; continuing interest — more stress on supply/demand, etc.; relies on DCF (IRR), direct capitalization (initial cap rates), and price per square foot; emphasis on average cash-on-cash rates, more realistic; credit loss, downtime, free rent, TIs, and annual capital reserve; a lot of interest in this market but also very cautious; more concerned with the resale estimate — stabilized income, full selling commissions, full legal expenses, and real estate tax adjustment.	3.0% to 5.0%	3.0% to 4.0%	3.0% to 4.0%	9.25% to 10.25%	2.0% to 5.0%	10.50% to 12.00%	8.75% to 9.75%	6 to 12	50.0% to 60.0%	3.0% to 5.0%	—	6
REIT ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; uses effective rents after all concessions are extracted.	3.0%	3.0%	2.0%	—	2.0%	10.75%	8.25% to 10.00%	6	70.0%	7.0%	$0.05	5
REIT ■ Forecast Period: 5 years Uses both DCF and direct capitalization; occasionally early-year market rent growth is up to 5.0%; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve.	3.0%	3.0%	3.0%	10.50%	2.0% to 4.0%	12.00%	10.00%	6 to 9	70.0%	5.0%	$0.10 to $0.15	6
PENSION FUND ADVISOR ■ Forecast Period: 10 to 14 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI before TIs, leasing commissions, and capital replacement reserve; vacancy assumption is 5.0% total including lag on noncredit tenants plus 1.0% to 2.0% credit loss.	1.5% to 3.5%	3.0%	3.0%	9.00% to 10.00%	1.5% to 5.0%	10.00% to 11.00%	8.50% to 9.50%	2	70.0%	1.0% to 2.0%	$0.10 to $0.15	2

National Apartment Market

INVESTOR SURVEY RESPONSES*

SECOND QUARTER 1999

*Representative sample; due to space constraints, not all responses are included.

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	CHANGE RATES		VACANCY	RESIDUAL		DISCOUNT RATE (IRR)	OVERALL CAP RATE (OAR)	RESERVE	MARKETING TIME
	Market Rent	Expenses	Total Vacancy	Cap Rate	Selling Expense	Free & Clear	Free & Clear	Per Unit	Months
DOMESTIC PENSION FUND ■ Forecast Period: 10 years Strong balanced market; groups leases by expiration dates for DCF analysis; typical NOI ratio is 60.0%; uses face rents since concessions are typically minor; leasing fees are in addition to a 4.0% management fee; relies on direct capitalization; uses DCF as a test.	4.0%	2.0%/ 4.0%/ 6.0%	5.0%	8.75% to 9.50%	2.0%	11.00% to 11.50%	8.50% to 9.00%	$150 to $250	3 to 4
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Continuing positive interest—people represent real demand; strong market; supply and demand in balance; groups leases by expiration dates for DCF analysis; management fee ranges from 3.0% to 5.0%; relies on DCF, direct capitalization, and sales comparison; emphasis on average cash-on-cash rates, more realistic credit loss, downtime, free rent, TIs, and annual capital reserve.	0.0% to 3.0%	3.0% to 4.0%	3.0% to 5.0%	9.00% to 10.00%	3.0%+	10.75% to 12.25%	8.50% to 9.50%	Specific by component, cost & life expectancy	6
DOMESTIC PENSION FUND ■ Forecast Period: 1 and 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI after capital replacement reserve; reflects concessions as they occur; may burn off on new property during lease-up period in *strong* market.	3.0% to 3.5%	3.0% to 3.5%	5.0% to 10.0%	8.00% to 10.00%	—	10.00% to 12.00%	7.50% to 9.50%	$200 to $400	6 to 9
PENSION FUND ADVISOR ■ Forecast Period: 7 years Strong interest in this product nationwide; applies management fee of 3.0% to 4.0%; uses DCF and direct capitalization; emphasis is on initial returns.	2.0% to 3.0%	3.0%	5.0% to 7.0%	9.00% to 10.50%	2.0% to 3.0%	11.50%	8.50% to 9.50%	$300	6
INVESTMENT ADVISOR ■ Forecast Period: 5 to 10 years Good product for diversified portfolio, groups leases by expiration dates for DCF analysis; uses management fee of 4.0%; average NOI ratio is 40.0% to 50.0%; relies on direct capitalization and uses DCF to calculate yield.	Years 1-3 varies per market; 3.0% thereafter	3.0%	5.0% to 10.0%	8.00% to 10.00%	2.0% to 3.0%	10.50% to 12.00%	7.50% to 9.50%	$200 to $300	6 to 9
REAL ESTATE ADVISOR ■ Forecast Period: 5 and 10 years Relies on DCF, also uses direct capitalization; residual cap rate is 25 basis points over the going-in cap rate on a 5-year holding period, 50 basis points over the going-in cap rate on a 10-year holding period.	3.0% to 3.5%	3.5%	6.0% to 8.0%	9.25% to 9.75%	2.5%	10.75% to 11.50%	8.75% to 9.25%	$200 to $250+ $100 to $150 for capital improvements	6
PENSION FUND ADVISOR ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap, capitalizes NOI after capital replacement reserve deduction; buys 150- to 400-unit apartment complexes in first-and second-tier markets nationwide.	3.0%	3.0%	5.0% to 7.0%	9.00% to 10.00%	1.5%	11.00% to 12.50%	7.75% to 9.00%	$200 to $250	3
PENSION FUND ADVISOR ■ Forecast Period: 7 to 10 years Specializes in this market; increases annual rent in lieu of lease-by-lease analysis; uses management fee of 4.0% plus leasing costs and reserve (actually funded); relies on direct capitalization primarily; also uses sales comparison and cost; more equity and debt are flowing to this market; sees signs of overbuilding of new deluxe product.	0.0% to 2.0%	3.5%	6.0% to 8.0%	8.25% to 9.00%	2.0%	10.00% to 11.00%	7.75% to 8.50%	$200 to $250	4
INVESTMENT ADVISOR ■ Forecast Period: 10 years Specializes in this market; relies equally on DCF and direct capitalization; IRR may be as high as 12.00% in very weak markets; reserve amount depends on age and/or conditions, typically $150 per unit for new properties, $300 per unit for those over 10 years old.	3.0% to 3.5%	3.0% to 3.5%	5.0% to 10.0%	8.50% to 9.50%	2.0% to 3.0%	11.00% to 11.50%	7.75% to 9.00%	$150 to $300	3
REIT ■ Forecast Period: 10 years Uses both DCF and direct capitalization; in direct cap applies OAR to NOI after capital replacement reserve deduction; acquisitions are in the Western region of the United States.	3.0%	3.0%	5.0%	9.25%	2.0% to 3.0%	11.00% to 12.00%	8.75%	$200	4 to 8
REAL ESTATE ADVISOR ■ Forecast Period: 10 years Prefers newer suburban garden complexes in mature, stable markets; uses both DCF and direct capitalization; relies on DCF; in direct cap, capitalizes NOI after capital replacement reserve deduction.	2.5%	3.0%	6.0% to 8.0%	9.25%	3.0%	10.50% to 11.00%	8.75% to 9.50%	$250 to $400	9 to 12

Korpacz

Investment and Property Market Characteristics: Office Markets

SECOND QUARTER 1999

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	FORECAST VALUE CHANGE NEXT 12 MONTHS		PRICE AS % OF REPLACEMENT COST		STRUCTURAL VACANCY		YEARS TO STRUCTURAL VACANCY		TIs - NEW (PSF)		TIs - RENEWAL (PSF)	
Market	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
National CBD	2.00%-10.00%	5.50%	65.00%-110.00%	90.75%	4.00%-10.00%	7.38%	0-5	2.5	$10.00-$50.00	$27.67	$0.00-$20.00	$10.20
National Suburban	0.00%-10.00%	4.33%	80.00%-115.00%	97.12%	4.00%-8.00%	6.50%	0-3	1.1	$8.00-$35.00	$16.45	$4.00-$20.00	$7.18
Atlanta	0.00%-6.00%	1.92%	90.00%-110.00%	100.00%	5.00%-8.00%	6.75%	0-0	0	$5.00-$15.00	$10.90	$3.25-$10.00	$5.55
Chicago	0.00%-10.00%	2.57%	80.00%-100.00%	94.17%	2.00%-10.00%	6.39%	0-4	0.9	$10.00-$40.00	$21.94	$5.00-$20.00	$10.28
Dallas	0.00%-10.00%	3.50%	50.00%-110.00%	90.71%	5.00%-10.00%	6.50%	0-6	2.0	$8.00-$30.00	$15.14	$2.00-$15.00	$7.00
Houston	3.00%-15.00%	6.50%	50.00%-105.00%	83.33%	3.00%-10.00%	5.81%	0-4	1.3	$10.00-$30.00	$15.19	$2.00-$15.00	$6.25
Los Angeles	0.00%-10.00%	5.64%	75.00%-100.00%	88.12%	5.00%-10.00%	6.79%	1-3	2.5	$5.00-$30.00	$17.56	$0.00-$15.00	$6.17
Manhattan	3.00%-10.00%	7.38%	60.00%-90.00%	80.00%	5.00%-12.00%	8.10%	0-2	0.9	$30.00-$40.00	$35.00	$5.00-$20.00	$10.83
Pacific Northwest	(10.00%)-5.00%	2.38%	85.00%-110.00%	97.93%	3.00%-7.00%	5.17%	0-3	0.7	$5.00-$35.00	$16.69	$0.00-$15.00	$6.79
San Francisco	(5.00%)-10.00%	4.00%	70.00%-110.00%	95.42%	3.00%-8.00%	5.67%	0-0	0.0	$5.00-$50.00	$23.13	$0.00-$20.00	$7.08
Southeast Florida	2.00%-5.00%	3.33%	80.00%-110.00%	97.08%	5.00%-10.00%	6.50%	0-3	1.0	$12.00-$27.00	$16.90	$3.00-$15.00	$6.40
Washington, DC	0.00%-10.00%	3.19%	75.00%-100.00%	90.62%	4.00%-8.00%	6.52%	0-3	1.7	$0.00-$35.00	$18.33	$0.00-$15.00	$9.83

Investment and Property Market Characteristics: National Markets

SECOND QUARTER 1999

Source: Personal survey conducted by The Korpacz Company, Inc. during April 1999.

	FORECAST VALUE CHANGE NEXT 12 MONTHS		PRICE AS % OF REPLACEMENT COST		CLASS-A+ and A MALLS IRRs		CLASS-A+ and A MALLS OARs		CLASS-B+ and B MALLS IRRs		CLASS-B+ and B MALLS OARs		STABILIZED OCCUPANCY	
Market	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
Regional Mall	0.00%-10.00%	3.50%	80.00%-120.00%	98.75%	9.50%-12.50%	10.82%	7.00%-9.00%	7.80%	10.50%-13.50%	11.98%	7.00%-10.00%	9.35%	92.00%-99.00%	94.60% (Class-B to A+)
Power Center	0.00%-0.00%	0.00%	80.00%-120.00%	98.75%									90.00%-97.00%	94.14%
Strip Center	0.00%-10.00%	2.08%	80.00%-120.00%	97.88%									90.00%-98.00%	94.25%

	FORECAST VALUE CHANGE NEXT 12 MONTHS		PRICE AS % OF REPLACEMENT COST		WAREHOUSE/DISTRIBUTION IRRs		WAREHOUSE/DISTRIBUTION OARs		R&D/FLEX IRRs		R&D/FLEX OARs		TIs - NEW (PSF/UNIT)		TIs - RENEWAL (PSF/UNIT)	
Market	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
Industrial	0.00%-10.00%	1.95%	80.00%-110.00%	98.00%	9.50%-12.50%	11.00%	8.00%-10.00%	9.01%	8.00%-13.00%	11.54%	8.00%-12.00%	9.77%	$0.00-$15.00	$3.97	$0.00-$8.00	$1.69
Apartment	0.00%-6.00%	2.42%	75.00%-120.00%	95.86%									$35.00-$350.00	$165.00	$0.00-$150.00	$50.00

Survey Process

Survey participants represent a cross section of major institutional equity real estate market participants who invest primarily in institutional-grade property. Initially, each participant is interviewed by telephone or in person regarding the cash flow assumptions used in analyzing real estate investment opportunities throughout the United States. Subsequent quarterly surveys are completed by mail with telephone follow-ups. Information is criteria applied in the quarter in which it is reported.

As a group, the survey participants collectively own, control, or acted as agent in 1998 transactions of institutional-grade real property assets with a total estimated value in excess of $200 billion. The minimum equity investment of the participants is from $5 million to $50 million (excluding hotel participants). Rates and other assumptions presented in this survey indicate participants' expectations from institutional-grade real property investment. They do not reflect performance of such property. The information is not generally applicable to investments that are not institutional grade. Although we do not represent that the survey is statistically accurate, the survey results provide important insight into the thinking of a significant part of the equity real estate marketplace.

Definitions

- **INSTITUTIONAL-GRADE REAL ESTATE**
  Real property investments that are sought out by institutional buyers and have the capacity to meet generally prevalent institutional investment criteria.
- **KORPACZ YIELD INDICATOR (KYI)**
  A composite IRR average of the surveyed markets
- **KORPACZ DIVIDEND INDICATOR (KDI)**
  A composite OAR average of the surveyed markets
- **MARKETING TIME**
  The period of time between the initial offering of a property for sale and the closing date of the sale
- **STRIP SHOPPING CENTER**
  Neighborhood or community center
- **RESPONDENT TYPE**
  Classification of survey participants into descriptive categories (e.g., domestic pension fund, REIT, investment advisor)
- **FORECAST PERIOD**
  Time for projection of anticipated cash flow benefits for discounted cash flow analysis
- **CHANGE RATE**
  Annual compound rate of change

  Market Rent
  Achievable current rent if vacant

  Expenses
  Total property expenses
- **RESIDUAL**
  Estimated total price at conclusion of forecast period

  Cap Rate
  Overall capitalization rate used in calculation of residual price

  Selling Expense
  Transaction expenses (legal, brokerage, marketing, etc.) paid by the seller
- **DISCOUNT RATE (IRR)**
  Internal rate of return in an all-cash transaction, based on annual year-end compounding; formerly termed the *free and clear equity IRR* in the Korpacz Survey
- **OVERALL CAPITALIZATION RATE (OAR)**
  Initial rate of return in an all-cash transaction; formerly termed the *free and clear equity cap rate* in the Korpacz Survey
- **VACANCY ASSUMPTIONS**

  Months Vacant
  The number of months a space remains unleased at the expiration of a vacating tenant lease

  Tenant Retention
  Percentage of leased rentable area that is expected to be re-leased by the existing tenants at lease expiration

  Underlying Vacancy/Credit Loss
  Percentage of total revenue uncollected due to unexpected vacancy or credit loss (in addition to any rent loss from vacancies at lease expirations)
- **NET OPERATING INCOME (NOI)**
  Income remaining after deduction of all property expenses. In direct capitalization, investors capitalize one of the following:
  1. NOI *after* capital replacement reserve deduction but *before* TIs and leasing commissions
  2. NOI *before* capital replacement reserve deduction, TIs, and leasing commissions
  3. Cash flow *after* capital replacement reserve deduction, TIs, and leasing commissions
- **REGIONAL MALL CLASSIFICATIONS**

Class	Retail Sales PSF
A+	$400 and up
A	$300 to $399
B+	$250 to $299
B	$200 to $249
C+	$150 to $199
C	$100 to $149
D	Less than $100

- **RESERVE**
  Amount allocated for periodic replacement of building components during a property's economic life
- **FULL-SERVICE HOTEL**
  Hotel with restaurant and lounge facilities, meeting space, and a minimum service and amenities level; moderate to lower upper-tier pricing; includes all-suite hotels
- **ECONOMY/LIMITED-SERVICE HOTEL**
  Hotel with "rooms only" operation and no food and beverage except possibly continental breakfast; lower-tier pricing
- **EXTENDED-STAY HOTEL**
  Hotel with rooms that generally include work stations with two-line phones, access to fax machines; mid- and upper-price hotels include kitchenettes, separate lounging area; weekly rates.
- **LUXURY HOTEL**
  High-quality hotel offering personalized guest services, typically with extensive amenities; upper-tier pricing; includes four- and five-star resorts
- **OPERATING EXPENSES (HOTEL)**
  The on-going expenditures incurred during the ordinary course of business necessary to maintain and continue the production of gross revenues, not including reserves, debt service, and capital costs
- **GROSS ROOMS REVENUE MULTIPLIER (GRRM)**
  The relationship, or ratio, between sale price and gross rooms revenue
- **MANAGEMENT FEE (HOTEL)**
  An expense item representing the sum paid for or the value of management service, excluding incentives, expressed as a percentage of total revenues
- **RESERVE FOR REPLACEMENT OF FIXED ASSETS (HOTEL)**
  An allowance that provides for the periodic replacement of building components, and furniture, fixtures, and equipment, which deteriorate and must be replaced during the building's economic life
- **RevPar**
  Revenue per available room

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