

## **Allen Matkins/UCLA Anderson Forecast California**

### **Commercial Real Estate Survey**

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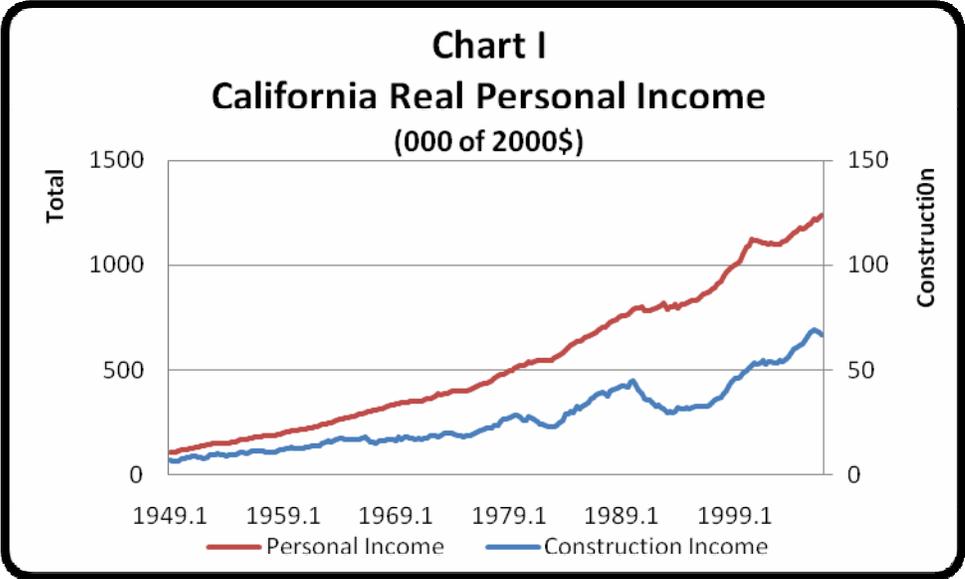
**UCLA Anderson Forecast**

The Office Space Market in Los Angeles will continue to tighten through 2010 according to a new survey taken by The UCLA Anderson Forecast in conjunction with and sponsored by Allen Matkins Leck Gamble Mallory & Natsis LLP. The survey, the first of a series of surveys to be conducted around California, polled real estate professionals in the office space development and investment market. Survey panel members were strong in their belief that rental rates for office space in Los Angeles would continue to increase and may even rise at faster rates than the brisk 4.7% average in 2006. This increasing demand in the face of limited new supply is also seen to be driving down vacancy rates over the four year horizon of the forecast. The Allen Matkins UCLA Anderson Forecast California Commercial Real Estate Survey and Index Research Project was initiated by Allen Matkins in 2006 furtherance of their interest in improving the quality of current information and forecasts of commercial real estate. The first of the surveys, the Los Angeles Office Space Survey was taken in May of 2007 with a panel of real estate professionals being asked six questions on various aspects of the market. This will be followed with surveys for Los Angeles on the industrial market and the retail market and will cover each of the major geographic regions of the state. These initial survey results foresee demand by office-using industries far outstripping the supply in spite of an office space building boom currently underway, and augers well for those who own or who will be putting new capacity on the market in the next four years. The Los Angeles Office Market was chosen as the first survey as it is the largest market in the State and being a major market for Allen Matkins and the home of UCLA provided ready access to the panel of participants.

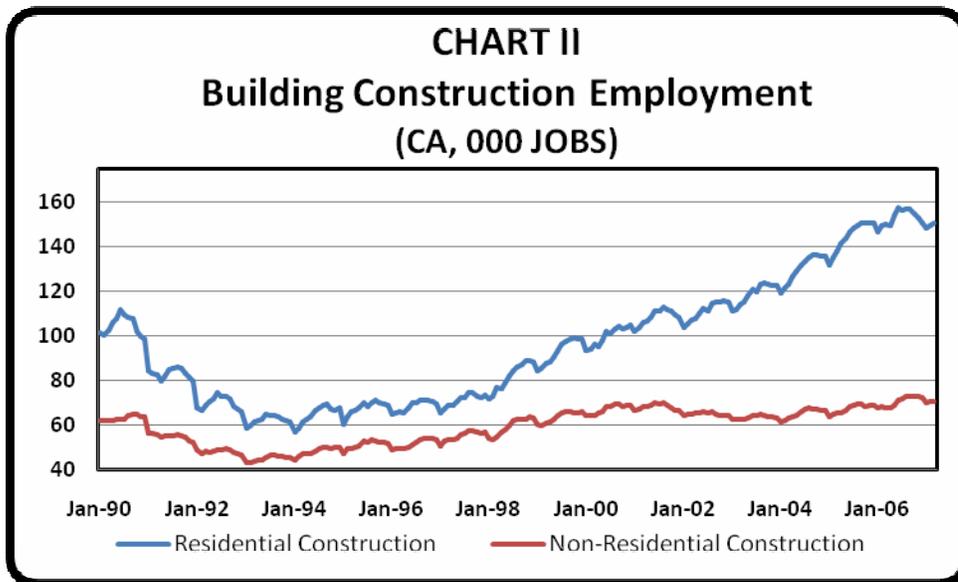
#### **WHY A NEW SURVEY?**

Since the summer of 2006 the housing market has been in freefall with home sales between March 2006 and March 2007 throughout California showing a greater than 30% decline, and in many California markets, home prices have begun to fall. This meltdown of the high flying housing sector is a crisis for many of those employed or invested in real estate, mortgage financing, and home building. But what does it mean for the California and Local Economies? Does the contraction in home building create a recession with widespread loss of jobs and income? Looking at the post-World War II US economy the answer might be "of course." But, like all things in life and economics it is not so simple. The impact of contractions in housing on other economic activity is primarily felt through the loss of jobs in new home construction and in the direct and indirect support industries including furnishings, furniture and appliance manufacturing. To the extent that something else picks up the slack, a recession might be

avoided. Clearly, during most of the recent past recessions, nothing else did as both manufacturing and residential structure construction contracted in tandem. Looking at California total real personal income and real personal income due to construction activity from 1947 to 2007, we find that while the correlation between the two has not been as pronounced as the coincidence of business cycles and housing sector related job loss, there remains a strong relationship between construction activity and overall economic activity.



More detailed data on employment by the type of construction are available from 1990 to 2007 and reveal that commercial and residential construction employment behave quite differently and are not necessarily coincident with each other. Although residential construction is considerably larger than commercial, the differential movement is important observation for forecasters. The reason is that while not all jobs in residential construction are transferable to commercial construction, some, such as electrician and plumber, are easily transferred and to the extent that the two sectors are moving out of phase with one another a fall off in residential construction may be moderated by increasing demand for workers in the commercial building arena.



A glance at the data (Chart II) from 1990 to present shows that employment in the construction of residential structures declined with the 1991 recession, recovered after 1997 and in spite of a recession in 2001, has been growing ever since. In contrast, employment in the construction of non-residential structures did decline with the 2001 recession and has only begun a recovery in the past year. Thus, the two are presently out of sync with each other. Overall construction, which includes specialty contractors who work on residential and non-residential construction, and non-building construction, mirrors the residential construction pattern better than the commercial structures pattern, albeit at a slower growth rate.

One key difference between Commercial and Residential Real Estate is the relationship between each and the timing of the business cycle. An analysis of the US data for the period 1947 to 2007, a sixty year span, reveals that housing construction is very much a coincident indicator of the business cycle. When housing is bad, it is likely the economy is as well. Office, Retail and Industrial construction activity tends on average to trail economic conditions. Because projects take time to complete, often three to five years from inception to occupancy, the pull back in the construction of new buildings happens subsequent to an economic downturn. It is a downturn which causes commercial investors shy away from initiating new projects, but the downturn rarely stops a project already under way. The contemporaneous correlation between changes in investment in non-residential structures and real GDP in the United States is practically non-existent. Thus, after a downturn begins, investors find themselves with newly completed structures, a weak market and having to ride out the higher vacancy rate and lower rental rates for the duration of the downturn. If forecasts of commercial market conditions two to three years out could be improved, this would be valuable for the commercial real estate investment community.

We are interested then in improving our economic models for forecasting commercial real estate for two reasons. First, to the extent that the commercial market is going the opposite direction as the

residential market, as it is now, the demand for construction workers on the part of the commercial building contractors will mitigate the layoffs in the housing market. A striking example of this is the current construction market in Honolulu where Fourth Quarter 2006 new home permits declined by over 30% on a value basis. Yet a very hot market for retail, wholesale and resort property created a construction boom large enough to push employment in construction up for the first half of 2007 and to change UHERO's forecast from a 1% decline to a 3% increase.

Second, the long lead time of commercial building requires as accurate a window as possible on future market conditions for the investment community decision making process. Allen Matkins, a leading California law firm with seven offices statewide and a reputation as one of the premier US real estate law firms has undertaken to support our efforts in improving the quality of knowledge and the economic models of commercial real estate by commissioning the construction of a new survey of commercial real estate market conditions and underwriting its future implementation.<sup>1</sup> With Allen Matkins financial and logistical support, the UCLA Anderson Forecast is has begun to create a set of surveys and indexes of market conditions to accomplish these two goals.

Current and future market conditions in commercial real estate can best be summarized by the price (or real rental rate) and the excess demand (or vacancy rate) in the market. These two measures will change with the factors affecting demand and supply and will themselves influence future additions or subtractions to the stock of space offered and the plans of users of that space. The three principal commercial markets we look at are; Office, Retail and Industrial. While the supply side costs of adding to the stock; land, labor, building materials, and finance, are the same for all three, the demand side is quite different and we look at them as separate markets. Commercial real estate tends to be a very localized product. For example a shopping center in Lakewood is not much of a substitute for one in Santa Clarita. The geographical focus here will be slightly less local, on the county level, as there is some, albeit sometimes limited, substitutability within these markets and a market aggregation at this level allows matching of information from the survey with other currently available economic data for our forecasting models. The survey will cover the major geographical markets in California and ultimately roll up into a state wide measure of commercial real estate conditions.

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1. See <http://www.AllenMatkins.com> for more information on the firm.

## **SURVEYS AND ECONOMIC INFORMATION**

There are a variety of survey types, which when properly constructed and implemented achieve different goals. The most common type of survey is the Subjective Attitude Survey. The oft quoted Conference Board Survey of Consumer Confidence<sup>2</sup> is an example of this type of survey. The survey asks, for example, “Do you think jobs are hard to get today?” However, if the respondent is not looking for a job currently, the knowledge he has is, at best, an interpretation of second hand data. Similarly the question “Will business conditions improve in the next six months?” is more likely to get a reflection of a Time Magazine or a Katie Couric feature than a careful economic forecast. That is not to say that this survey is without merit. The purpose of such surveys is to find out what people are thinking about and to direct public discourse on the issues that are of concern to the public. Politicians and Journalists use this type of survey frequently to focus their messages. However, there is no information in the survey about how people are going to act either now or in the future and therefore no predictive power. For example, the fact that someone thinks business conditions are bad today and going to get worse in the next six months—an answer which would cause the Consumer Confidence Index to decline, does not mean the same person will not feel the timing is right to purchase a new car. It is the latter, investment in consumer durables, which drives economic activity, not the former; the respondent’s feeling about it. A statistical analysis of the Conference Board survey clearly shows its lack of predictive power.

A second common of survey used in economics is the Estimation Survey. It is constructed to estimate the values of a population from a subset of that population. The BLS Household Employment Survey is a good example of this. A representative sample of 60,000 households is constructed from the total population of households in the US.<sup>3</sup> If it is truly representative, then the number of people who say they are in the work force and the number of those who say they are employed ought to well approximate and on average be the same proportion as the population as a whole. Such surveys are valuable tools for collecting data which would otherwise be prohibitively costly to obtain. As with the Subjective Attitude Survey, this type of survey is not forward looking, however, the survey is about current behavior and can be employed in economic models for forecasting purposes.

A less commonly used survey type is the Forward Looking Survey. This type of survey seeks to elicit information about decisions being made today which will affect economic events in the future. The challenge of such a survey is that market participants faced with external factors they had not anticipated can and do change their future behavior. Nevertheless, information about the intended private actions of individuals and firms, particularly if they are actions which require a number of years to complete, can when combined with other economic data be a powerful tool to forecast future market conditions. The Allen Matkins UCLA Anderson Forecast California Commercial Real Estate Survey falls into this category.

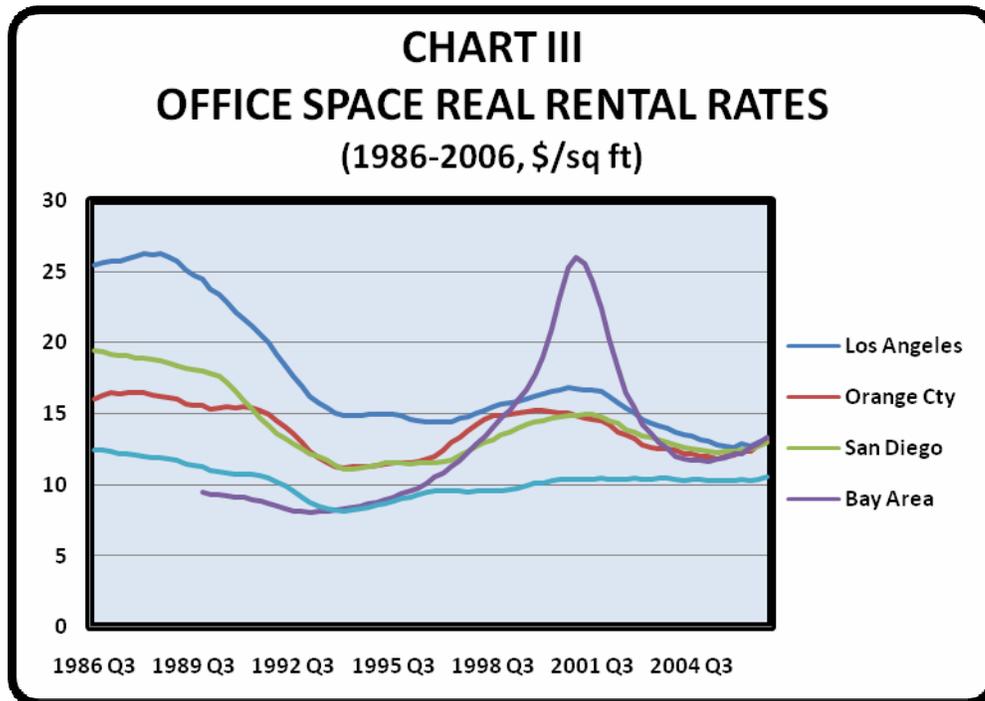
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2. For more information on the Conference Board Survey see: <http://www.conference-board.com>

3. For a description of the BLS Household Survey see: [http://www.bls.gov/cps/cps\\_htgm.htm](http://www.bls.gov/cps/cps_htgm.htm)

### **REAL ESTATE MARKET CONDITIONS**

In forecasting commercial real estate market conditions we are interested in the changes in demand and supply and how they affect market equilibrium. Market conditions are best described by the price or real rental rate, and excess supply or vacancy rate. As the Office Space Market in Los Angeles is the roll out survey in the set of commercial real estate surveys that comprise the Allen Matkins UCLA Anderson Forecast California Commercial Real Estate Survey Research Project, we focus on this market as an example. Office space is generally defined as including banks and finance institutions, general offices, non-specialty government offices, scientific and technical offices not associated with manufacturing or laboratories<sup>4</sup>. The gross stock of office space (ignoring depreciation) changes primarily through additions to the stock of new construction. While some deletions from the stock occur, it tends to be a small proportion of the total stock and those buildings being removed from the stock have usually long since been downgraded from Class A Office Space. Consequently, their disappearance or change of use has little near term impact on market conditions. Looking at the historical rental rate data for markets in California (Chart I) we see that these rates on average declined from 1986 through 1996 and show a cyclical pattern of increases and declines. The long run equilibrium in the market is ultimately

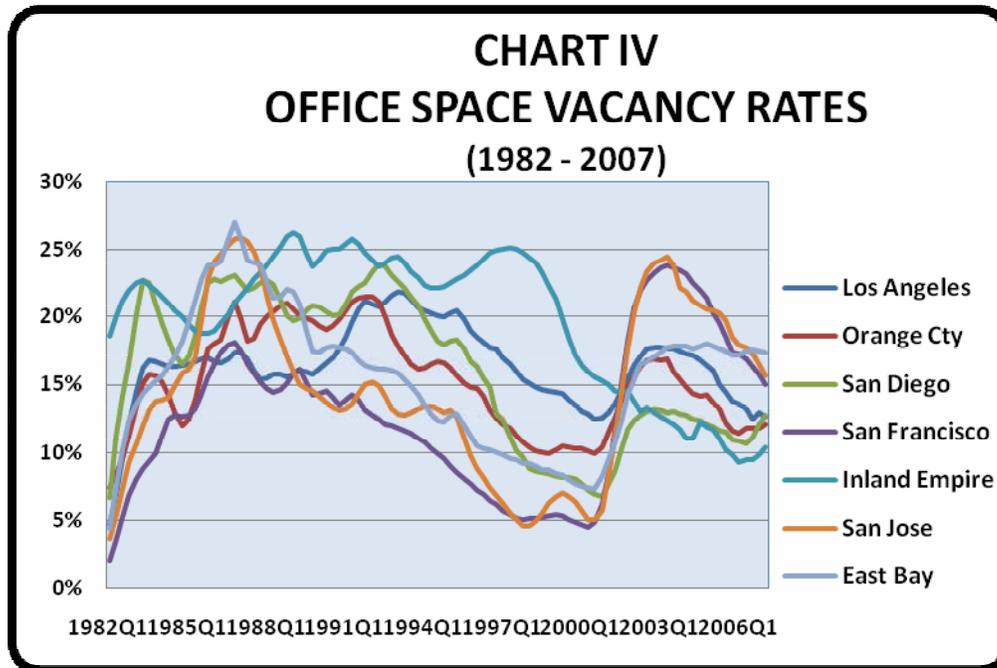


determined by both the secular trend in demand and the cost of bringing new stock to market, principally building costs, land costs and interest rates. The trend we see from 1986 through 2004 can be attributed to falling ownership costs associated with declining real interest rates.

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4. Property and Portfolio Research, Inc. Boston, MA

The second important characteristic describing market conditions is the vacancy rate. In a market in equilibrium there will be an expected average vacancy rate due to the time it takes for one tenant to leave when he no longer requires space, and the time required to complete built out and new tenant move in. Vacancy rates above the long run average indicate excess supply in the market and conversely for historically low vacancy rates. Chart II shows vacancy rates for the same sub markets in California.

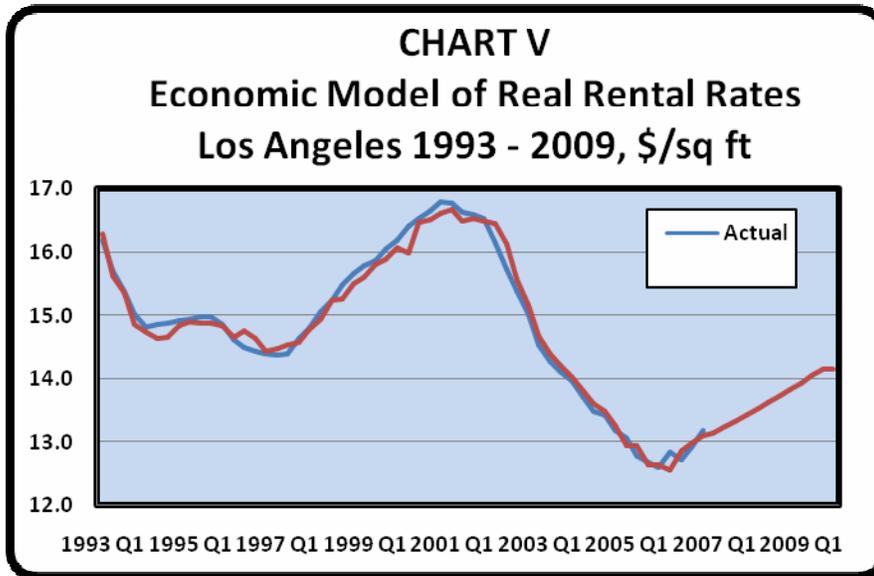


Like the real rental rates, the vacancy rate fluctuates around its mean, but there is a lot of variation. It is the forecasting of future variations of these two indicators of market conditions which give us a picture of whether or not there will be sufficient demand to achieve the average vacancy rate, and at what price the newly built space will bring. As important components of the IRR calculations, these are critical to investors.

The demand for office space is derivative of the growth of office space using industries, particularly business and scientific services, finance, information, government, health care and social services and to a lesser extent manufacturing. While plans for expansion in the local market are not always public information, the planning for rental of new office space usually does not look very far into the future. Firms expand their employment in response to demand for their products, and faced with crowding, begin to look for additional space. That is, they are most likely to look for space when they are ready to use it rather than based on a forecast of future employment growth. In addition, there is the technical survey methodological problem that the population of office space demanders is quite diffuse and a representative sample of this population would be require frequent benchmarking to the changing complexion of the office space using community.

The Supply Side of the market is a more fruitful avenue to obtaining future market information. The suppliers of new office space to the market and engaged in extensive study of both the demand and the supply side in order to analyze and evaluate large scale investments. As they are actively engaged in leasing space and adjusting the supply to demand conditions, they are close to the actual changes taking place in the market. Consequently they have informed opinions on the demand supply movements going out two to three years into the future, and they are acting upon these forecasts. As it is those actions which will affect the demand for new construction and consequently the stock of commercial space available in the market, understanding the current and future view of the market by the suppliers of office space will help us better understand the evolution of these markets. The Allen Matkins UCLA Anderson Forecast Commercial Real Estate Survey is designed to do just that. The survey is targeted at investors/owners of commercial real estate and is to elicit the forecasts they are making in the investment analysis of future projects.

To benchmark the sample we constructed an economic model of market conditions based on currently available information. The data we are explaining with the model are net real rental rates per square ft of Class A office space in Los Angeles County. These rates have been adjusted to remove the effects of inflation. The key explanatory variables are real interest rates, net completions and office space using employment. The impact of these variables over time was incorporated into the model. For example, net completions were found to impact real rental rates with a lag, as the time between the completion and the rental in the market was often greater than our quarterly observations. Office space using employment was defined as payroll employment in health, education and human services, professional and business services, financial services, other services, government and information. Not every employee in these categories is demanding of office space. For example maintenance workers in health services and prison employees in government do not directly demand office space. However, taken as a group, changes in the levels of payroll employment in these categories well characterize the demanders of office space. The supply side variables in our model are office completions and current real interest rates. All of these variables are statistically important and the model gives a good fit to the data (Chart V).

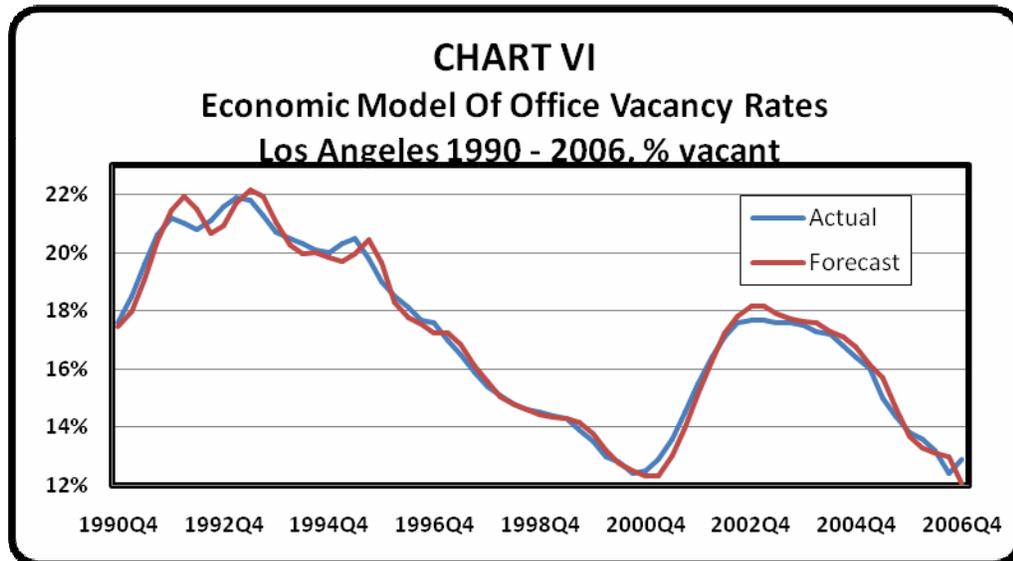


The responses of the variables differ between their short run and long run impact. In the short run, the one and two year out changes in real rates, employment demand is the dominant variable. We estimate that a 1% increase in the office space employment variable will result in a 1.27% increase in real rental rates in the year of the demand increase and another 1.37% increase in the subsequent year. Of course the increase in the marginal rate that paid for newly rented office space and for office space in the prime areas relative to the increase in office space demand, will be higher than this since our data is for the average rental rates across the county. When we look at longer run impacts, the increase in office space demand almost completely washes out as cost factors, particularly real interest rates and the total stock of office space come to dominate the equation. This is precisely what we would expect; an increase in demand in a market with nearly fixed supply will result in a more than proportionate rise in prices. In response to those conditions, investors find office space more attractive and through their investment increase the supply. The new supply brings the market back down towards its long run equilibrium.

Looking at the performance of the model in Chart V, two characteristics stand out. First the model does a good job of tracking the changes in real rental rates. Second, it lags behind most changes in the direction of rental rates. The changes are tied closely to the responses of market investors to the changed equilibrium condition are the part of the explanation that the Survey and Index are to be picking up – better predicting the changes in direction of rental rates.

Turning to our second indicator of Office Space Market conditions, vacancy rates, we looked at the determinants of tight and loose markets. Interestingly, labor market demand as measured by the growth of office space using employment has no significant effect on the vacancy rates. Long term trends, generally dominated by the impact of interest rates and real rental rates are the dominant forces in the market. So in the short run, an increase in demand generates higher rental rates. These higher rates, with a time lag of up to 30 months, induced more supply onto the market. Similarly, lower

interest rates increase supply and push up vacancy rates. Our model, seen in Chart VI, shows a reasonable fit to the data. Although there is some of the leading of the actual to the forecast, it is not as pronounced and dominant as with the rental rates model. As with rental rates, the information collected from the Survey will improve our understanding of the three and four year out conditions in Office Space Vacancies.



## THE SURVEY

### **From Survey Responses To CRE Index**

The Allen Matkins/UCLA Anderson Forecast California Survey responses cover six questions about future markets and the activities of the respondents in their markets (see Appendix for Survey Questions). The same questions asked for Office Space in Los Angeles County will be employed for the other commercial real estate products and other geographies.<sup>5</sup> The responses to these questions are summarized in the next section and provide an interesting insight into the market. As this is the first survey, it provides a benchmark for future surveys.

Overall this raw data tells us about a number of dimensions of the market, movements of demand and supply, financing conditions, and land valuations. These need to be aggregated for use in our forecasting models as a forward looking index. Our preference is to let the data tell us how to aggregate by using statistical methods to combine the data with our forecast model and aggregate in the way that gives the best forecast. Unfortunately, this requires a number of observations and starting out we only have the first observation. The Consumer Confidence Index, the UK Consumer Confidence Index and the ABC News/Washington Post Consumer Confidence Index, among others, simply take each question's response to be as important as every other one. Each response is weighted on a predetermined scale

and the questions are averaged. The weighting system is important and while it can be simple as in the aforementioned surveys, more complex weighting, yet still theoretically rather than empirically based are sometimes observed (*e.g.* Germany Composite Leading and Coincident Indexes). While these methodologies of aggregation are common, they each express some ignorance about the relative importance of the individual questions in achieving the goal of the survey. Our goal is forecasting and the weighting will be adjusted over time to achieve that goal, but the simplistic weighting is a reasonable starting point with the first survey.

### **2007 Office Space Survey – Los Angeles**

The first Allen Matkins UCLA Anderson Forecast California Commercial Real Estate Survey was taken in May 2007 for the Office Space Market in Los Angeles. The LA Office Panel consisted of 38 firms are active in investing in the Office Space Market. The response rate was 50% which is considered a good response rate for a voluntary panel. The University of Michigan's Survey of Consumer Attitudes, which expends considerable resources in obtaining responses, had a response rate of 48% in 2003 and The California Health Interview Survey, considered one of the best single state surveys of its kind had a response rate of 34% - 38% between 2001 and 2003. Does this level of response matter? The answer is yes and no. So long as the respondents are representative of the population, the answer is no. A higher response rate is always better statistically speaking, but the results remain valid. Our analysis of the respondents indicates that the response level is acceptable.

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1. For an introduction to survey methodology see:  
Albert Goodman "Introduction to Data Collection and Analysis" 2003  
<http://www.deakin.edu.au/~agoodman/sci101/index.php>  
  
Thomas F. Burgess "Guide to the Design of Questionnaires," 2001  
<http://www.leeds.ac.uk/iss/documentation/top/top2/top2.html>

Like most markets, the LA Office Market is fluid as firms come and go, merge and change objectives. The LA Office Panel is designed to be replicated as a cross section of the market as repeated samples are taken into the future. Of the respondents 47% initiated less than \$100M in new investments last year 26% between \$100M and \$500M and 26% more than \$100M. Their degree of participation in the Office Space Market differed as some of those firms who are very large by assets are also in the smallest participation group. 2/3rds of the LA Office panel are Value-Added Investor Firms and approximately 74% of the Panel is privately held.

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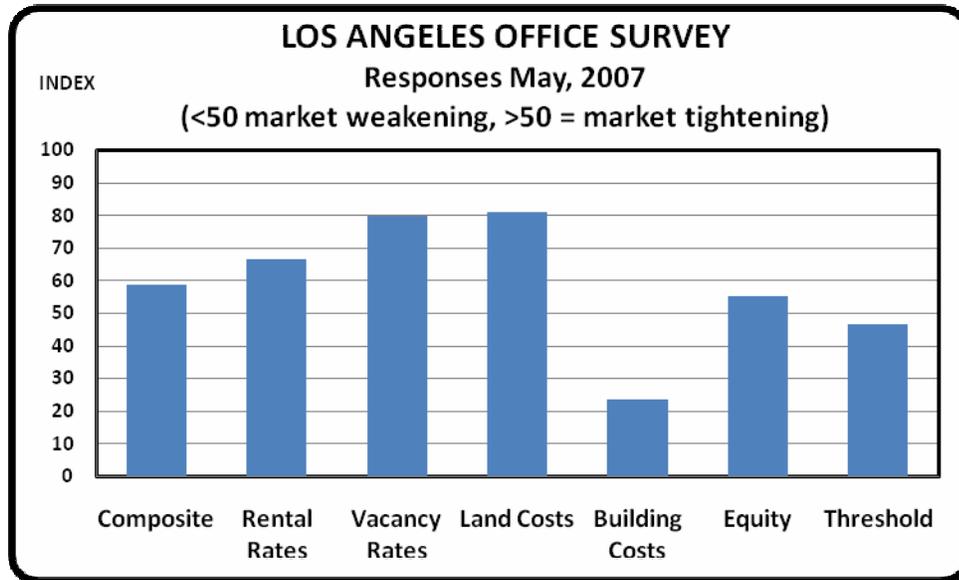
### **Analysis and Interpretation**

The Los Angeles Office Space Survey posed questions to the panelists on their forecast of vacancy rates and rental rate growth, on office space development costs, and on new project financing structure. (The

Survey Questions may be found in the Appendix.) The questions were chosen to explore the various aspects of commercial real estate development and for their impact on the decision on how much new investment would be undertaken. Each question was given a value from 0 to 100 with higher values corresponding to answers consistent with tighter markets, or markets experiencing an excess of demand. The midpoint of 50 represents the dividing line between a move towards tightening of the market and a move towards an excess supply in the market. The composite score for the index of responses was 58.9 and is indicative of tighter markets over the 2007-2010 forecast time horizon. Taken together the development questions; building and land costs, and the financial structure questions; equity and threshold levels, indicate conditions are good for further development of existing office space and investment in new office space. The market questions, rental rates and vacancy rates forecasts however provide a strong indication of the panel's sentiment that in spite of the building that will take place due to favorable development conditions, it will not be sufficient to clear out the excess demand.

Our panel felt that rental rates in the office market were going to increase at least as fast as 4.7% annually between now and 2010. The respondent response was strong enough to infer a 95% confidence in this result. Our economic model, based on office space demanding sectoral employment forecasts yielded a 4.88% forecast through 2009 with no new supply added to the market. This is consistent with the belief of the market participants but the addition of new supply puts our panel's analysis as more optimistic than the econometric model. The survey panel participants are looking at the same statistical data as are employed in our model, but they also rely on additional qualitative information about the market and the sub-markets in Los Angeles in developing their predictions. This qualitative information is precisely what is required to pick up signs of structural change in the industry, signs that are not in the historical data.

For vacancies the panel was even stronger. Ninety-five percent of the panel felt that the vacancy rate would decline between now and 2010. A statistical test of the strength of the panels view yields a 99% probability that this is the sense of the entire market. The Anderson Forecast econometric model of vacancies comes to a different conclusion. Namely, that the increased demand currently in the market will force down vacancy rates through 2008 and the new office space generated by the incentives of higher rates and lower vacancies arriving in 2009 will bring the vacancy rate back up to 2007 levels. Taken together and without the benefit of historical observations on the panel's answers to these questions, the survey indicates that the panel is strongly of the mind that either the demand factors are changing in the future, or that the net new completions will be coming into the market at a slower rate than seen in the economic model. This could be due to structural factors, for example the increased difficulty of obtaining entitlements and suitable land, or the expanded usage of office space by categories of demanders not included in the economic model, or the fewer opportunities available to investors as a consequence of the increase in building and land costs seen over the past few years. With both rental rates and vacancy rates scoring very high and being statistically significant above the threshold for tighter markets, when it comes to future conditions in the Los Angeles Office Space Market, all signs point to a seller's market.



### **Some Concluding Thoughts**

The Alan Matkins UCLA Anderson Forecast California Commercial Real Estate Survey and Index has just begun. With our first panel we have found some interesting and potentially useful information. While the survey was in many ways consistent with our economic models, it did contain new data. This is a good indicator that as we develop a series of observations from future Los Angeles Office Space Market Surveys (two each year) we will be able to validate the survey as a useful forecasting tool. As of now our interpretations and use in forecasting have to be tempered by a lack of historical experience with this exciting new tool, but the results are promising and we await incorporating them into our statistical analysis as this unfolds. The support and help of Allen Matkins, our data suppliers, and the many participants in initial interviews, focus groups, and validation testing as well as our panel have been instrumental in the success of the survey and are greatly valued and appreciated. The next two panels to be put together for future surveys will be the Office Space Market for Orange County and the Retail Space Market for Los Angeles. Each market is different and we await the new insights to be garnered from them. The former will be conducted in September 2007 and the latter concurrent with the second LA Office Space Survey in November 2007. Each will serve to better educate us on the dynamics of these markets and their impact on the local economy.

## **APPENDIX: Survey questions**

The Allen Matkins/UCLA Anderson Forecast California Commercial Real Estate Survey consists of six questions (Table I). The first two questions relate to the market conditions directly. The respondent is to give his view of market conditions through 2010. Question No. 3 relates to the cost of building and Question No. 4 the cost of land. If building or land costs are going up along with rents, then there will be a cost squeeze on the return to investment and it is less likely that investments will take place. This holds even more strongly if b, c, or d is chosen for question No. 1. Questions No. 5 and No. 6 relate to credit conditions. If thresholds are getting lower and leverage is getting higher then financing is easier and it is more likely that projects will be undertaken.

Although the relationship between the answers to these questions and the variables we are trying to forecast is an empirical one, we expect that a data series of these six variables will accomplish two goals. First we will be able to provide to the market information about how investors are viewing current and future market conditions as part of their investment process and second, we will be able to develop the data which will admit statistical validation of these relationships and improved forecasts.

TABLE I  
ALLEN MATKINS/UCLA ANDERSON FORECAST CALIFORNIA SURVEY QUESTIONS  
OFFICE SPACE – LOS ANGELES

1. Office rents went up by 4.7% in 2006 in Los Angeles County. Between today and 2010 do you forecast that rents in the portion of the County you invest in will:
  - a. Increase at a Faster Rate?
  - b. Increase at the Same Rate?
  - c. Increase at a Slower Rate
  - d. Decrease?
2. In Q4 2006 The Vacancy Rate in Office Space in Los Angeles County was 14.6%. Do you forecast that between 2008 and 2010 that the vacancy rate in the portion of the County you invest in will:
  - a. Increase?
  - b. Decrease?
  - c. Stay the Same?
3. In 2006 Building Materials Costs Increased 10.6%. Do you forecast that between today and 2010 they will:
  - a. Increase Faster?
  - b. Increase at the Same Rate?
  - c. Increase at a Slower Rate or Decrease?
4. Do you forecast that the Cost of Land for building Office Space will:
  - a. Increase faster than the rate of inflation?
  - b. Increase at the rate of inflation?
  - c. Increase slower than the rate of inflation?

- d. Decrease?
- 5. As you arrange financing for your Office Space projects over the next 24 months; will the percentage of equity participation of your firm:
  - a. Increase?
  - b. Stay Approximately the Same?
  - c. Decrease?
- 6. Relative to last year will your un-leveraged investment return threshold over the next 12 months:
  - a. Increase?
  - b. Stay The Same?
  - c. Decrease?