
Introduction

This Special Issue was initiated to attract a wide variety of research on real estate cycles and their applications to real estate investment decision-making. The proliferation of cycles research has become a priority for large institutional investors such as pension plans and their sponsors, insurance companies, real estate investment trusts (REITs) and foreign investors. While institutional interest in real estate cycles has been a relatively recent phenomenon, astute individual investors have for many decades (probably centuries) used their knowledge of cycles to increase their investment returns and control downside risks. Rarely, however, did this practical knowledge of cycles become memorialized in any meaningful written form, certainly not through any systematic research process as we describe it here.

In recent years, we have seen a rapidly expanding body of knowledge on real estate cycles, as evidenced by articles published in academic and professional publications, as well as paper and panel sessions at annual meetings of organizations such as our own American Real Estate Society, the International Real Estate Society, the European Real Estate Society, the Pacific Rim Real Estate Society and the Asian Real Estate Society. Early in the submission process of this Special Issue it became evident that many international authors have been researching cycles for a long time, perhaps due to the long histories of their property markets as compared to the United States. We gratefully acknowledge the contributions of four articles from authors outside the U.S.—two articles from the U.K., one from Sweden and one from Australia.

Despite the intense global interest in the subject of real estate cycles, a common terminology, methodology and agenda for cycles' research has not yet evolved. It is our hope that this Special Issue and the research presented herein, will focus attention on this evolution within the subject, and be instrumental in challenging researchers to develop a common terminology, framework, methodology and agenda for cycles' research in the future.

The American Real Estate Society, in cooperation with and support of its two sponsors, PricewaterhouseCoopers and SynerMark Investments, proudly presents this timely issue of the *Journal of Real Estate Research* devoted to real estate cycles. The financial support of our two sponsors for this important project is greatly appreciated.

The articles in this Special Issue represent a broad range of thinking about the integration of cycles in the analyses of real property. There are nine articles in total; the first three discuss general concepts and processes, and the remaining five address specific micro and macro issues. The first article by Pyhrr, Roulac and Born is a general overview study of real estate cycles. These authors synthesize relevant research and commentary on real estate cycles in a micro-decision-making framework and discuss their strategic implications for investors and portfolio managers, with

special emphasis given to the emerging topic of global real estate cycles. Perhaps the authors' greatest contribution is their extensive review of the macroeconomic, microeconomic and practitioner literature on cycles, including their proposed cycles research agenda for the future that appears at the end of the article. Other topics addressed are the relevancy of cycles, the basic theory of cycles, and modeling real estate cycles.

The second article by Dokko, Edelstein, Lacayo and Lee presents an econometric model linking macroeconomic fundamentals to real estate income and property value cycles. They model value as a function of net operating income using national income growth, gross domestic product, employment growth, real interest rates and inflation rates against metropolitan statistical area (MSA) level data for twenty MSA office markets. The MSA data includes office vacancies, net operating income per square foot of office space, office absorption and office construction permitted for each of the twenty markets. Their model was an improvement over existing models of external economic variables and property variables used in measuring real estate performance, at least at the MSA level.

In the third article, Grissom and DeLisle use econometric modeling techniques to test for structural changes in relationships between macroeconomic variables and the performance of U.S. office and industrial properties. They use gross domestic product, interest rates, anticipated inflation, tax factors, capital gains and unanticipated inflation as explanatory variables. Their results suggest that these economic variables can be isolated, are sufficiently stable to help predict cyclical real estate changes and that investors can use cycle research to more proactively manage real estate portfolios. Of special interest are the authors' systematic analyses of alternative commercially available return series in terms of their advantages and disadvantages for cycles research.

Mueller defines two distinct types of cycles—the physical (supply-demand) market cycle, and the financial (capital flow) market cycle. He finds that occupancy levels are directly related to rental growth rates on a local level. Using thirty years of data in fifty-four office and industrial property markets, he confirms his theory of a strong positive relationship between market cycle position and rental growth rate. The study concludes that investors should use cyclical instead of linear rental growth rates in modeling future returns, and specifically that future estimates of market cycle position be used to determine rental growth rates for each year in a DCF model. He also calls for more research on the financial market cycle or capital flows to real estate that affect property prices more strongly than income changes from a property.

Björklund and Söderberg employ panel data to evaluate the gross income multiplier (GIM) and identify whether a speculative investment bubble existed in Sweden during the 1980s. The data is a price change series using transactions in mixed-use income property in the Swedish market, together with interest rates and rental growth rate expectations. Their results indicate that price index variability cannot be adequately explained by market fundamentals, operating expense ratios, required rates of return or expected growth in net operating income, thus, other factors (such as market

sentiment that moves capital flows) must cause the “price bubble.” They conclude that the GIM can be a helpful tool for identifying different points in the property cycle.

A number of researchers have studied the impact of credit supply on commercial mortgage markets. The flow of commercial mortgages affects the future supply of new commercial space. Typically, when vacancy levels rise so do loan defaults. In the sixth article presented, Mejia uses a structural equation approach to assess the commercial mortgage supply cycle and concludes that increased loan defaults lag increased debt flows by about five years. He also concludes that analysis of supply cycles is important for lenders, investors and regulators who face these risks of an over-supplied mortgage market.

In the seventh article, Tsolacos employs a time-series analysis of the volume of new retail development in Great Britain as it relates to retail space rent and consumer spending. He finds that retail development starts lag rent and consumer spending changes by two years. In a similar study, McGough and Tsolacos use time-series analysis to examine the cyclical activity of office properties in Great Britain. They find that office rents are the primary influence on construction starts. There is roughly a three-year lag between rent signals and construction starts. They also conclude that office (service sector) employment and interest rates are not significantly related to construction activity during the period examined.

In the final article, Kummerow develops a sophisticated system dynamic model to simulate the effect of supply, demand (production capacity) and vacancy rates on rents. The simulation provides an understanding of the system sensitivity to changes in supply and demand, and which variables generate more explosive cycles and oversupply problems in a market. The Australian author concludes that, even if one is brilliant and does a perfect job at the project level, there can be dynamics in the market as a whole that nevertheless destroy the bottom line. Thus, reducing cycle volatility and downside impacts requires changes in system design and policies at the aggregate market level.

These nine studies provide a broader foundation for further research on cycles. Each article suggests research agendas for the future, including topics throughout the continuum from macro-to-micro real estate cycles. We especially encourage research studies that focus on specific applications to property and portfolio analysis in an ex ante decision framework.

It has been our pleasure to deliver this Special Issue to the readers of *JRER*.

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