

Capital Markets Research: **A Critical Step for the Real Estate Industry**

The real estate industry has been plagued, from time to time, by a shortage of funds. The costs of capital, if available, were devastating to the industry. At other times, the real estate industry has been plagued by an excess of capital. Under these conditions, construction was driven by the excess of capital rather than the market demand for space.

Securitization of real estate debt and equity changed the institutional structure through which funds flow to real estate. During the current recession, the private market, i.e., direct investment is weakening, while the public market, securitized assets, have been rising in price. In the early nineties real estate cap rates were so high that the only way to secure real estate capital was through the securitized markets, which had their own volatility. This changed structure raises some questions.

How does real estate fit into today's capital markets? What institutional arrangements affect the flow of funds into and out of the real estate sector? Are some segments of the capital market more closely linked than others to real estate? Do the actions of some investors presage the flow of funds into and out of real estate? What is the impact of international flows of funds on the real estate sector of the U.S. capital market? Has the securitization of real estate debt and equity moderated real estate market cycles or aggravated them? In short, which factors that impact the rise and fall of the flow of funds to real estate are not related to the space markets, but rather are the result of capital market behavior?

Clearly, an improved understanding of the flow of funds will assist in forecasting changes in the real estate sector of the economy. And, various real estate sectors will fare differently depending upon the character of the flow of funds. The Homer Hoyt Institute, in keeping with its mission to expand and disseminate the real estate body of knowledge as a means to improving real estate decision making, has embarked upon a comprehensive research program to address these and related issues.

This communication describes a Real Estate Capital Flows Research Program (RECFRP). It is designed to create a better understanding of the sources and flows to real estate investment and their impacts on real estate markets. It is intended to disseminate information about the project to potential participants and supporters, including the Hoyt Fellows, Weimer School Fellows, real estate professionals and other interested parties, firms and potential researchers.

A Consortium of Industry Stakeholders and Academics

A research roundtable in Washington, D.C. sponsored by the Homer Hoyt Institute, Johns Hopkins University and others brought together leading industry executives and researchers to identify the issues and to outline the steps to achieve a breakthrough in this ground-breaking effort. The Symposium participants decided to proceed with a www-based consortium of all interested parties. The Homer Hoyt Institute is moving forward with this initiative, and is actively seeking new participants to support and assist in the development and execution of a comprehensive research agenda. Leading academic researchers are asked to submit proposals for projects that will fit within the general scheme of the overall research concept. Leading practitioners are asked to identify critical research areas, lend their expertise and provide support.

Real Estate Capital Flows Research Program

The Real Estate Capital Flows Research Program (RECFRP) seeks to identify and quantify the sources and cost of funds available for real estate investment during various phases of the economic cycle. The program addresses a long-term problem, because real estate traditionally has experienced over and under supplies of funds as the economy has expanded and contracted. These flows of funds exacerbated space market imbalances, leading to overbuilding and extreme price volatility.

RECFRP is designed to enhance the responsiveness of the supply of funds relative to the demand based upon space market requirements rather than the vagaries of the capital market. The benefits of such a system may include the following:

- Greater stability in real estate markets,
- More confidence in real estate as an investment, especially by institutional investors,
- Increased liquidity for real estate debt and equity investments,
- Increased visibility and marketability of real estate investments,
- Better individual investment decisions, and
- A more socially productive real estate sector.

Current Year Program

RECFRP has designed and fund selected research projects, in order to get the program rolling. These include the following:

A review of capital flows and flow of funds in the macro economy with particular emphasis on the flow of funds into real estate. This research includes both theory and data illustrating the theory. The final component will be a flow chart illustrating the types and directions of flows, along with some idea as to volume of flows.

*Pat Hendershott, Ohio State University (emeritus) and University of Aberdeen, and
Ron Donohue, Homer Hoyt Institute.*

An analysis of the existing capital flow literature in real estate, finance, economics and other related fields. Topics addressed include empirical and theoretical models, methodologies and data sources and uses.

Jim Clayton, University of Cincinnati

An analysis of existing real estate capital flows data including theoretical underpinnings, data used, and methodology for calculating flows. The output will be an annotated listing for capital flows data.

*Glenn Mueller, Johns Hopkins University, and
Steve LaPosa, PriceWaterhouseCoopers*

A dynamic analysis of the effects of capital flows into the REIT sector on REIT returns and, simultaneously, the effects of REIT returns on subsequent REIT capital flows. The dynamic relation between REIT capital flows and returns is being estimated using state-of-the-art regression techniques. The role of interest rates, other macroeconomic variables, and capital flows into the general stock market is being incorporated into this dynamic analysis.

*David C. Ling, University of Florida, and
Andy Naranjo, University of Florida*

The results of these projects will be put on a dedicated web site within the HHI web site with links to other sites.

Jeff Fisher, Indiana University

Multi-year Research Program Under Development

Other projects, which have been proposed and for which funding is not yet available include the following:

An analysis of flow of funds into REITs using household sector data from the Federal Reserve.

David Downs, University of Georgia

An analysis of the economic development literature dealing with population and employment growth. This will include identification of models and data sources. This is a first step in linking economic growth models to institutional investors' decision making models and investment behavior.

Brent Smith, Western Michigan University

Other issues that have been discussed and which may provide the basis for future projects include:

- A proposed set of definitions and decision rules for measuring real estate capital flows,
- A historical analysis of the relationships among various real estate investment instruments under varying economic conditions that expands beyond performance to include capital flows and their influence,
- A conceptual model for understanding, measuring and projecting real estate capital flows, including suggestions as to data, proxies, and measurement methodology,
- An empirical test of various theoretical models for measuring and projecting real estate capital flows,
- A report on the state-of-the-art in understanding, measuring and projecting real estate capital flows.
- A focused analysis of the existing literature with a concentration on the flow of funds to real estate in securitized forms, including REITs and CMBS.
- A historical analysis of major real estate investors, with particular emphasis on correlation among various institutional investors and their presence in the market at various times. Particular emphasis will be placed on identifying the market leader ("hot money") role of specific classes of institutional investors.
- A conceptual model for capital flows into REITs and CMBS, including differentiation by property type, geography and/or income characteristics.
- Models that explain economic and other characteristics that have a logical relationship to REIT and CMBS flows of funds. This could be followed by an empirical test that would yield a list of leading indicators to provide insight on the likely future of REIT and CMBS capital flows.

The Homer Hoyt Institute has committed \$25,000 as seed money to initiate the program and has raised most of the additional \$25,000 for the first stage of a multi-year program initially from a Weimer School Fellow and some Hoyt Fellows. The Hoyt Fellows have adopted the project as their first major cooperative research effort with the Weimer School Fellows.

The discussion of the consortium idea at the symposium grew out of the fact that industry representatives were very focused on the aspects of the flow of funds most relevant to their specific business. However, it is clear that a better understanding of the system is achievable through looking at the whole as well as the parts. Thus, it became critical to organize an effort where those industry representatives and academics most interested in selected parts could effectively communicate with each other, and that there was at the same time created a synergistic arrangement for the various interest groups to bring together their results and benefit from the work of the others.

The five main groups identified were composed of the four in the matrix of public/private and debt/equity. The fifth is international with all four components lumped together.

First and foremost, supporters of this program will have an opportunity to be part of a team that will develop the knowledge and tools for more effective real estate decision making. They will have input into defining the issues and designing the research projects. Additionally, they will have an opportunity to interact with leading real estate academics and top-level real estate professionals. Through this interaction, the Homer Hoyt Institute will continue to bridge the gap between industry and academia to provide real estate decision makers with the tools needed to make better real estate decisions.

Background on the Emergence of a Flow of Funds Research Consortium

The Homer Hoyt Institute's Research Roundtable Program generated the idea of a Real Estate Capital Flow Consortium to be operated through a web site.

The Advanced Studies Institute funded a series of research roundtables leading to and including the Capital Flows Symposium at Johns Hopkins University in Washington DC in December. The series, under the leadership of Glenn Mueller, started with a discussion that included professional researchers at the PREA meetings in March. The participants included Jacques Gordon - La Salle, Will McIntosh - Prudential, Wylie Gregg - RREEF, Mike Miles - Fidelity, Doug Poutasse - AEW, Brian Webb - Aetna/Allegis, William Hughes - AEC/MIG, Jeff Fisher - Indiana University, and Steve Laposa - PriceWaterhouse Coopers. The second of the series was at the annual meeting of ARES in March. Attending were Will McIntosh - Prudential, Mike Grupe - NAREIT, Steve Roulac - Roulac Group, Geoff Dohrmann - *Institutional Investor, Inc.* Jeff Fisher - Indiana University, Steve Laposa - PriceWaterhouse Coopers, Ko Wang - University of California at Fullerton, Marc Louragand - Cornerstone, and Ron Donohue and Maury Seldin from HHASI.

The series ended with the symposium in Washington in December, 2000. Attendees included representatives from La Salle, RREEF, John Hancock, Fidelity, Torto-Wheaton, NAREIT, ACLI, Centerprise, and others including academics and the Chief of the Capital Flows Section of the Federal Reserve Board of Governors. The following are excerpts from the welcoming remarks made by Maury Seldin, the Institute's representative:

"It is a pleasure to welcome you to this Real Estate Capital Flows Symposium.. At the Homer Hoyt Institute we call it a research roundtable. The purpose is to stimulate research that is most relevant to critical issues in real estate and related areas. As you know, now that securitization is an important part of the scene, a better understanding of capital flows is critical...."

"A major impediment to accurate forecasting may be the feedback effect of what may be termed irrational exuberance (to borrow a phrase). Major changes in capital flows are generally based on shifts in fundamental conditions. These shifts, even if not forecasted in early stages may be revealed as they develop. Thus, early detection of shifts is a good clue for identifying a trend. But, it is not enough, we need a paradigm that considers what is becoming known as "behavioral finance....."

"The injured parties include more than those who take capital losses. The injured parties include society as a whole because society ends up paying a price for the inefficiencies. It can be in bailouts as with the S & L debacle. It can be in a less efficient allocation of resources. We are concerned. And, we can do better."

"A better understanding of capital flows will mitigate the oversupply of capital. A better understanding of capital flows will mitigate the under supply of capital. From the Homer Hoyt Institute perspective, we wish to mitigate the excesses. This is a societal goal. In the meantime, it is wholly consistent to assist the players in the early detection of the shifts and to assist the followers in understanding enough to avoid the excessive capital flows."

"Helping players capitalize on the shifts is part of the process. We hope that this symposium helps those of you who are focused on making money. Our reasoning is that you are interested in the research that will advance the state of the art, and that out of this research will come a better functioning of the system. The incentive of making money is just that - a means of making societal progress. Some of us are driven by a mission. We see societal change as what we ought to be working on. We see institutional innovation as a means for progress. At the Homer Hoyt Institute we have shifted the focus from direct grants as we were doing sixteen years ago when we held our first research round table, to working with others of similar interests and by fostering the relevant research - with as much rigor as is doable."

"Since you, here today, are the others with similar interests and with the intellectual resources to advance the state of the art, it is a great please to welcome you. So, together, let us see what we can do to enhance our understanding of the flow of funds, and to develop the research critical to fleshing out a paradigm that would better enable us to achieve our goals."

Initiative:

This communication is distributed to top level real estate professionals who have the expertise and financial resources to participate in support of the program. For more information on the Homer Hoyt Institute and the Advanced Studies Institute Weimer School, please visit our website www.hoyt.org or contact:

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