

A Perspective on Long-Term Real Estate Returns: United States

A COLLABORATION BETWEEN THE BRANDES INSTITUTE AND
PROFESSOR ELROY DIMSON OF THE LONDON BUSINESS SCHOOL

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INTRODUCTION

The Brandes Institute, as a division of Brandes Investment Partners, believes investors are well served by evaluating investment returns with a long-term perspective. This focus includes examining the performance of asset classes over extended periods, and the characteristics of this performance.

The Brandes Institute's interest in long-term investment performance is shared by Professor Elroy Dimson of the London Business School, a pioneer in researching the long-term financial performance of asset classes. Professor Dimson is co-author of *Triumph of the Optimists*, a detailed study of total returns over the past century in global financial markets. As a result of our mutual interest in long-term financial performance, a collaborative study between Professor Dimson and the Brandes Institute commenced in 2003, with the goal of investigating long-term real estate returns in the United States. Prudential Financial and Brandes Investment Partners provided financial support for the project. A separate, but related, project by the Brandes Institute has been the study of the income component of long-term returns. The structure of this real estate study thus reflects an interest in the income component of real estate returns.

While equity, fixed income, and gold indices can extend back to the early 20th century, few comprehensive real estate indices predate the last three decades. Another limitation regarding real estate returns series is the scarcity of data separating the contributions of real estate income and capital appreciation to total returns.

Professor Dimson enlisted two MBA candidates at the London Business School to research the historical capital appreciation and income components of returns for U.S. real estate. Over the course of several months, Rajesh Goyal and Seth Reid extensively examined existing sources of real estate data, collecting archival data, consulting with experts, and evaluating the reliability of source information.

The result was the "103-Year U.S. Real Estate Returns" report, which reviewed the U.S. real estate market from 1900 through 2002. While this exercise inevitably includes approximations, estimations, and subjective judgment on how best to combine the available data, we believe the return series between 1926-2002 is a reasonable assessment of returns over that period.

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In particular, the report includes:

- A literature review of existing research
- Identification of existing data series, with rationale for inclusion/exclusion
- The composition of the return series, based on the duration of indices and availability of data
- A description of macroeconomic factors affecting the real estate segment over time.

SUMMARY OF FINDINGS

We present the summary finding of the real estate study in two formats. First, following the methodology of Professor Dimson, data is presented on a decade-by-decade basis. In addition, we observed from the data that the capital returns appeared to experience periods of distinct patterns, of which we believe we are now in the sixth. The returns are then aggregated into those periods. We note that the beginning and ending dates of each period are reliant solely on our judgment.

Notable findings include:

- Income returns have been stable over extended periods. As an example, returns currently being achieved are similar to those of 50 years ago.
- This stability (and the magnitude) of income returns provides a much larger segment of the total return than does capital appreciation over rolling periods exceeding five years. For rolling periods of 20 years, income provided an average 86% of total return. For the whole 78-year period, the income proportion exceeded 99%.

While there are many factors that make the assessment of real estate income returns more problematic than for financial assets, we believe the results of this study provide the first reasonably accurate assessment of these returns.

The limitations of the analysis and data collection include:

- Limited, discontinuous sources of data
- Return data for local, not national, markets
- Less frequency of trading, compared to equities and fixed income
- Lack of a widely recognized index
- Lack of readily available information separating capital appreciation from income for long-term real estate returns
- Investing in real estate assets may incur substantial transaction costs. The returns series does not reflect expenses related to the reinvestment of income.

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DECADE-BY-DECADE RESULTS

Decade	Total Return	Annual Average Income	Capital Return
1926-9*	11.9%	9.1%	2.5%
1930-9	8.1%	8.4%	-0.3%
1940-9	13.7%	6.3%	7.0%
1950-9	6.2%	6.1%	0.2%
1960-9	6.5%	6.2%	0.3%
1970-9	10.1%	6.3%	3.6%
1980-9	11.1%	6.5%	4.3%
1990-9	5.5%	6.6%	-1.1%
2000-2*	8.4%	7.5%	0.8%

* partial decades

PERIODIC RESULTS

(Periods selected by the Brandes Institute)

Period and Characteristic	Total Return	Annual Average Income	Capital Return
1926-1933 Depression	7.0%	9.2%	-2.0%
1934-1951 Recovery/War	13.0%	6.8%	5.8%
1952-1975 Stable expansion	6.3%	6.2%	0.1%
1976-1985 Inflation	13.2%	6.2%	6.6%
1986-1995 R.E. recession	3.9%	6.8%	-2.8%
1996-2002 Growth	10.7%	6.7%	3.7%

All results are annualized; total return and capital only are the average annualized returns for the specified periods. In these calculations, the income return is the average of the separate years' income yields, not the difference between the annualized total and capital returns, which would attribute the income build-up from reinvestment over the period. As such, income and capital may not add up to total return.

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Series components include:

- USDA Farm capital appreciation and rental income yields (1926-2002)
- U.S. Bureau of Economic Analysis, Primary Home Rent Index and net stock of residential assets (1926-2002)
- Ibbotson & Siegel (1947-1970) (returns series for residential, farm, and commercial real estate)
- Frank Russell (precedes NCREIF, or National Commingled Real Estate Investment Fiduciaries Index) (1971-1977)
- NCREIF Index (1978-2002)

Final returns were weighted between commercial and farm series based on a market weighted average of net asset stock.

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