This Special Issue of the Journal of Real Estate Finance and Economics presents papers presented at the 4th Cambridge–Maastricht Symposium, held at Madingley Hall, University of Cambridge, in June 2003. The papers covered a range of issues in real estate finance and economics. In all eight papers were presented, with six being selected for publication in this Special Issue of the Journal of Real Estate Finance and Economics. Of these six papers, three were written by research teams based in Europe and three are from the United States.

Andrey Paxlov and George Blazenko investigate the economics of real estate investment when maintenance of a property enhances neighborhood value. Dean Paxson considers a real options model for property valuation and sequential investment timing. David Feldman and Shulamith Gross apply a nonparametric data classification technique to classify the borrower and contractual features associated with mortgage default. Chinmoy Ghosh and C. F. Sirmans examine the determinants of CEO compensation in Real Estate Investment Trusts. Dirk Brounen and Piet Eichholtz investigate the effect of corporate real estate ownership on share performance. Bob Edelstein Branko Urosevic and Nicholas Wonder develop a model for explaining and testing large stakeholders’ ownership dynamics and the pricing of REITs shares.

The Neighborhood Effect of Real Estate Maintenance

The effect of maintenance on property values is a major concern for both private investors and governments. Pavlov and Blazenko examine the externality effect of real estate investment when maintenance of a property enhances a neighborhood value. It is argued that since the individual ignores the effect of one’s maintenance on other’s benefit from it,
under-maintenance is resulted. Because the property owner cannot be certain that his/her neighbor will commit the same effort at property maintenance as he/she, there will be under-maintenance. The authors then examine various tax and subsidy structures targeted to generate the socially optimal maintenance level. It is shown that subsidizing the maintenance expense of properties can induce socially optimal maintenance. Without disturbing social optimality, the maintenance subsidy can be financed with either a flat tax, which is less costly than the commonly used subsidies based on loan guarantees.

Multiple State Property Options

Paxson deals with a difficult problem in property valuation and sequential investment timing. The optimal investment strategy for a current or prospective property owner should reflect the expected variability of future profits, and current profits relative to threshold trigger profits for a variety of alternative states and actions. Paxson considers a real options model for property valuation which includes the option to invest, expand, contract, suspend and abandon, as well as the options to switch back and forth between these activity states. In terms of the real options model, the extension is with respect to valuing flexibility and what happens when investment options are reversible at a cost. The numerical solutions show optimal profit triggers and valuations for each of these real options. It is found that (i) increasing the number of options generally reduces the investment and abandonment triggers, and increases the investment option and total option values (ii) increases in investment costs reduce the value of upward options, and increases the optimal triggers for exercising those options, (iii) increases in expected profit volatility increase the value of all options, increases investment triggers and decreases abandonment triggers.

Mortgage Default: Classification and Regression Trees Analysis

Banks providing mortgage loans need to classify prospective borrowers, so as to distinguish the good from the bad risks. For this, a number of classification systems are available. David Feldman and Shulamith Gross are the first to apply Classification and Regression Trees (CART) analysis to analyze mortgage data. In particular, they look at mortgage default. Feldman and Gross first provide an introduction of CART and a comparison with other classification methods such as discriminant analysis and neural networks, with a focus on their application to real estate data. Subsequently, they apply the technique to analyze a set of Israeli mortgage data and find that borrowers’ characteristics are generally more important than mortgage contract characteristics as predictors of mortgage default. According to the authors, the CART technique can be used on a standalone basis, but may be used in an even more efficient way in combination with, or as input for, other classification methods.
On REIT CEO Compensation: Does Board Structure Matter?

Corporate governance and the compensation of corporate officers are among the hottest current topics in finance. Chimney Ghosh and C. F. Sirmans investigate how board characteristics influence the compensation of CEOs in the Real Estate Investment Trust (REIT) industry. Their main hypothesis is that board members, and especially outside ones, will be driven by personal considerations and the benefits from board membership besides corporate performance measures when deciding on CEO compensation. Ghosh and Sirmans use ordinary least squares regression and, to address potential endogeneity problems, also two-stage least squares regression to investigate the explanatory power of a number of board structure and corporate performance variables on CEO compensation. The study is based on data for approximately 300 REITs and for the years 1998–2000. Their results are generally consistent with the existing empirical governance literature: compensation is higher for large REITs, with large boards and relatively good accounting performance, but lower for REITs with a high degree of CEO share ownership. CEO chairmanship does not seem to have an effect on CEO pay.

Corporate Real Estate Ownership Implications

Dirk Brounen and Piet Eichholtz empirically examine how corporate real estate holdings varies across industries and across countries, and also how these holdings affect the stock performance of firms. In this study, the authors analyze a sample of 4,636 companies from 18 industries and 9 countries. The relative real estate ownership is defined as the ratio of ‘Property, Plant and Equipment’ (PPE) to total assets. The comparison of real estate holdings reveals that real estate ownership is driven by industrial rather than national differences. Overall, real estate ownership appears to be decreasing over time, which may be due to the gaining popularity of lease alternatives. Companies in the Business Services and Business Advisory sectors in particular have little need to own the buildings in which they operate. An analysis of stock performance shows a significantly negative relationship between real estate ownership and a firm’s systematic risk. In each industry Stock returns are found to be lowest among firms with the highest real estate ownership levels. Idiosyncratic risk, however, does not seem to have significant relationship with real estate ownership. The risk adjusted return patterns differ strongly across industries, with a significantly negative relationship between stock out performance and real estate ownership for Communications and Business Services.

Ownership Dynamics of REITs: A Theoretical and Empirical Schema

A large shareholder in a Real Estate Investment Trust (REIT) faces the trade-off between sub-optimal diversification on the one hand and the benefits of control on the other.
Edelstein Urosevic and Wonder investigate how this trade-off affects the changes in the ownership of such a shareholder. Given the ownership developments in the REIT industry during the last decade, this is a question with a high degree of practical relevance. The authors show that a REIT insider who starts with a large ownership stake will gradually liquidate his holdings until the marginal loss from risk bearing is exactly offset by the private benefits of control. Using a theoretical model, they show that larger marginal benefits of control for the large shareholder result in a higher ownership stake and an increase in the share price of the REIT. The long-term allocation is found to be independent of the initial allocation.