Introduction: Maastricht-Cambridge Symposium 5–7 June 2004

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This Special Issue of The Journal of Real Estate Finance and Economics presents papers presented at the 5th Maastricht-Cambridge Symposium. The Limburg Institute of Financial Economics (LIFE) hosted this 5th Symposium, which was attended by 30 participants. This Symposium followed the same format as in previous years in covering a broad range of topics. Eleven papers were presented at the meeting in June 2004 and, after the normal refereeing process, five have been selected for publication in this Special Issue.

Ashok Bardhan, Raša Karapandža and Branko Urošević develop a new option-based method for the valuation of mortgage insurance contracts in an economy where agents are risk neutral. Kanak Patel and Prodromos Vlamis apply Black and Scholes (1973) and Merton (1974), and the KMV corporation framework to estimate the default probabilities of real estate companies in the UK. Lynn Fisher investigates the impact of equity of redemption institution on mortgage renegotiation and the value of mortgaged real estate. Robert Edelstein and Daniel Quan examine issues relating to valuation smoothing in real estate return indexes and show that after correcting for “underestimations” real estate mean returns and variance appear to be quite similar to those of stocks. Lanny Arvan and David Nickerson explain urban blight and endogenous divergence in the overall quality and wealth of neighborhoods.

Ashok Bardhan, Raša Karapandža and Branko Urošević develop an option pricing model to price mortgage insurance contracts in closed form. The method can be readily implemented in a variety of market settings, including emerging markets. The actuarially fair value of the mortgage contract is determined as the sum of the present values of the expected loss for each year of the mortgage life. The severity of loss is represented as a portfolio of standard Black-Scholes put option prices. The authors analyze the effects of legal inefficiency on the pricing of mortgage insurance contracts and demonstrate that these effects can be quite significant in emerging markets where there are legal inefficiencies. They calibrate the model for Serbia where the creation of government-backed mortgage insurance scheme and the pricing of mortgage contracts presents challenges typical of many other emerging markets.

In the paper, “An Empirical Estimation of Default Risk of the UK Real Estate Companies,” Kanak Patel and Prodromos Vlamis study default risk in British
property companies. They look at a broad sample of listed UK property companies, covering the period 1980–2001, which they can qualify into four categories: Failed, non-failed, takeover and management buyout. They use the classical contingent claims models developed by Black and Scholes (1973) and Merton (1974), as well as the KMV corporation framework to assess default probabilities. Their results suggest that the structural—KMV—approach has a high precision in classifying the “healthy” non-failed companies and the companies in financial difficulty one to two years before default. The two main variables of the contingent claims model—the book value of debt and the historical equity volatility—explain the actual default of UK real estate companies over the past two decades fairly well.

Robert Edelstein and Daniel Quan statistically model and quantify the effects of aggregation errors upon real estate rates of return indexes. The authors use observed arms length sales transactions to infer the statistical reliability of an appraisal-based return index. They derive the relationship between appraisal error and the aggregate rate of return error. In order to obtain a tractable closed form expression for the appraisal bias, property price is specified such that it is equal to a multiplicative function of appraisal error the appraisal and the error term is assumed to be independent and lognormally distributed. This specification implies that expected returns based on appraisals will always underestimate the transaction based expected return. The results from the study show the appraisal based rate of return index is biased downwards and the variance is substantially understated.

Lynn Fisher investigates how a conditional transfer of ownership to a lender and the institution called ‘the equity of redemption’ affect mortgage renegotiation and therefore the value of mortgaged real estate. The author models the reinvestment activity of the mortgagor during the life of the mortgage and shows that failed renegotiation or default result in underinvestment. An additional period of time between default and foreclosure, known as a period of equitable redemption, may allow the mortgagor to accrue sufficient cash flow to mitigate underinvestment in nondefault states, and that its inclusion ex ante may be welfare improving. It is also shown that the value of equitable redemption survives other changes to the governance of the mortgage contract through time.

The efficiencies implied by programs of public assistance for urban renewal and public subsidization of neighborhood property investment and insurance rest delicately on the underlying causes of the externalities to such decisions by residents. Lanny Arvan and David Nickerson focus on the investment decision for an individual resident in a representative urban neighborhood in both isolation and in the presence of a program of public aid (urban renewal) to mitigate blight. The authors derives multiple equilibria in the game played between government and residents focusing on cases in which the prospect of public assistance to residents eliminates private insurance expenditures within the affected neighborhood. Moreover, under plausible conditions, the more generous is the potential public aid the more likely to occur is an equilibrium with blight. The normative implications of the analysis is that the volume of potential public aid available to an at-risk neighborhood is inversely related to the level of ex ante private investment in insurance in that neighborhood, with even small variations in this subsidy having the potential to radically affect the efficiency of neighborhood investment levels.