

Research Paper Number 59

Implicit Forward Rents as Predictors of Future Rents

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Date:

October 2002

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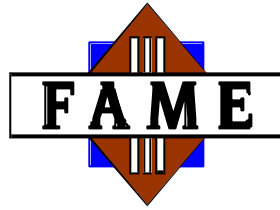
Hoesli, M., Englund, P., Gunnelin, A., Söderberg, B., "Implicit forward rents as predictors of future rents", 2004, Real Estate Economics, vol. 32, issue 2, pp. 183-215.

Abstract:

This paper investigates the relation between the term structure of rents and future spot rents. A rich database of office rental agreements for various maturities is used to estimate the term structure of rents, and from this structure implicit forward rents are extracted. The data pertain to commercial properties in the three largest Swedish cities for the period 1998-2002. A positive relation between forward and spot rents is found in some regions, but forward rents underestimate future rent levels. Another contribution of the paper lies in the area of rental index construction. We provide evidence that rental indices should not only be quality-constant (i.e. indices should not only control for the characteristics of rental units), but should also be maturity-constant.

Executive Summary:

When commercial leases for various maturities are available, it would seem relevant to examine how rental levels change with the maturity of these leases. In other words, it is important to construct the term structure of commercial rents, in analogy with the term structure of interest rates. In most instances, one would expect very short leases to exhibit high rental levels, while



the longer end of a term structure curve can exhibit various patterns (upward-sloping, downward-sloping, etc.). Consideration of the term structure of rents is obviously important when valuing properties, but should also matter for our picture of expectations of overall market movements. Of particular relevance is to examine whether the current term structure contains information about future rent levels, i.e. whether forward rents are good predictors of future spot rents.

Estimating the term structure of lease rates and analyzing the relationship between forward rents and future spot rents constitute the main purposes of this paper. As there is no forward market for leases, “implicit” forward rents are extracted from the estimated term structure. For instance, the one-year forward rent is implied by spot rents on one-year and two-year contracts. These implicit rents may not be directly relevant for trading, since it is not possible to construct synthetic forward contracts, but it is still relevant to investigate if they are able to predict future spot rents. In signing a lease tenants and landlords would compare the lease payments from a long contract with the expected payments resulting from rolling over a sequence of shorter contracts. In other words, implicit forward rents should reflect market expectations of future spot rates.

A total of 4,387 office rental agreements for various maturities are used. The data pertain to the three largest Swedish cities (Stockholm, Malmö and Gothenburg) for the period 1998-2002. For Stockholm, the data make it possible to consider three submarkets (CBD, city and suburbs). The term structures indicate that the strongest rent growth expectations are for Stockholm CBD, and also that growth expectations are generally stronger towards the end of the period. While the former result would be expected, the latter is more surprising: 2002 is widely regarded as a turning point for Swedish office markets, in particular the Stockholm market. A positive (and significant) relationship between forward rents and future spot rents is found in Stockholm, but implicit forward rents underestimate actual increases in rent levels, thus rejecting the hypothesis that forward rates are unbiased predictors of future rates. In Malmö and Gothenburg, forward rents have no predictive power in explaining future spot rates. This result may indicate that the Stockholm office market is more efficient than the other two markets, possibly because of the greater role of institutional investors on that market. We also investigate the sensitivity of rental indices to the method used for constructing such indices. Controlling for the physical and locational characteristics of the properties is very important, but reliable rental indices should also control for the maturity of leases. A failure to control for lease term can lead to seriously distorted rental indices.