ABSTRACT

Although indexes have been well established in most investment markets, such as equity and bond, indices for the real estate market are a relatively recent development, started only in the late 1970s. Since then, much of the subsequent researches have been concentrated on the residential market. The only publicly available price indices are those published by the Urban Redevelopment Authority (URA) which is on median price indices based on the fixed base weighted Laspeyres formula that fails to account for the quality changes. This dissertation aims to construct an office property transaction price indices for the Central Region and Downtown Core Area of Singapore, which will contribute to the understanding and valuation of office space as a key factor of businesses. The proposed transaction-based hedonic index takes into consideration the effect of changing quality and characteristics of office properties over time. The different parameters that may influence the sale price of an office property are identified and tested for its significance.

The hedonic regression office price index for the Central Region is then compared to the URA Office Property Price Index to observe the differences. The differences account for the effect of changing quality and characteristics. The hedonic office price index tends to be more volatile, one of the plausible reason being the lack of ample transaction data. However, the R-square for both the Central Region and Downtown Core Area are relatively high, indicating a relatively good fit of data. Therefore, the hedonic price indices are deemed to exhibit a more accurate price level and rate of appreciation.
Among all the tested parameters, floor area, floor level and age are three of the more significant parameters in influencing the office property transaction price. For the Downtown Core Area, the distance to nearest MRT Station parameter is found to have no significant impact on the office property transaction prices.

The objectives of this study are thus fulfilled as a more accurate price index is constructed and the significance of the parameters that are included in the hedonic equations are tested and determined.