ABSTRACT

This thesis looks at the relationship between property stock prices and corporate fundamental variables of listed property companies, and investigates the extent to which property company share prices reflect their earnings per share (EPS), dividends per share (DPS), and net assets value (NAV), using Singapore as a case study. Prior studies have identified EPS and DPS that predict share price movements or returns. For example, Fama and French (1988) propose DPS as being significant in explaining stock returns. Campbell and Shiller (1988) suggest DPS, dividend growth and long-term EPS as being significant in explaining returns. As NAV is the principal basis for valuation of property companies, the hypothesis of this study is that property stock prices mean revert or converge toward fundamental values (NAV, EPS and DPS). Presence of mean reversion reflects that property stock prices may take long temporary swings away from their fundamental values, but they would revert in the long-run.

A balanced sample of 16 property companies listed on the Singapore Exchange (SGX) at the end of year 1999 is selected. The data set consists of share prices and fundamental values from Jan 1985 to Dec 1999. The study initially employs Panel Data (Fixed Effects) model to test the relationship between the variables, as well as the basic descriptive statistics, spearman correlation analysis and unit root tests. As an extension of the evidence of mean reversion in the finance literature, variance ratio test and multi-period return regression method are employed to examine the mean-reverting behavior of property stock prices and fundamental values. Finally, it attempts to model property stock prices as a mean reverting Ornstein Uhlenbeck process toward fundamental values. Further empirical results reveal that there exist mean reversion characteristics in the individual variables; there is also evidence of mean reversion behavior of Singapore property stock prices toward their fundamental values over the 15-year period. The study suggests that NAV, EPS and DPS should be jointly considered in property company share prices.

Keywords: Property Companies, Fundamental Variables, Hypothesis, SGX, Panel Data Model, Mean Reversion