THE INTEGRATION OF RESIDENTIAL REAL ESTATE MARKETS AND STOCK MARKETS: ASSESSMENT FROM ARDL APPROACH

A research paper submitted to the Graduate School in partial fulfillment of the
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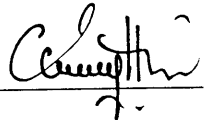**THE INTEGRATION OF RESIDENTIAL REAL ESTATE MARKETS AND STOCK**

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Abstrak

Tesis ini mengkaji hubungan di antara pasaran hartanah kediaman dan pasaran saham di Malaysia dalam jangkamasa panjang dan pendek bagi tempoh masa 1988 hingga 2004. Saya mengambil perspektif yang mengatakan bahawa harga hartanah menjadi penggerak kepada harga saham berdasarkan fakta bahawa pembelian hartanah kediaman merupakan keputusan pelaburan yang penting bagi pelabur individu. Pelabur individu dijangka akan menyelaraskan pengagihan asset kewangan mereka berdasarkan perubahan dalam harga rumah dengan tujuan untuk memaksimumkan utiliti pelaburan mereka. Indeks Harga Rumah Teres dan Indeks Harga Rumah Bertingkat Tinggi telah digunakan sebagai proksi bagi pasaran hartanah kediaman memandangkan kedud-dua jenis hartanah ini sering dilihat sebagai bertimbal balik sesama sendiri. Maklumat ini boleh membantu pelabur individu untuk membuat keputusan pelaburan.

Dengan menggunakan pendekatan kointegrasi, Autoregresif Lat Teragih (ARDL), temuan kajian menunjukkan pasaran hartanah kediaman dan pasaran saham tidak berkointegrasi. Ujian lanjutan juga dijalankan dengan menggunakan Indeks Harga Semua Jenis Rumah sebagai proksi bagi hartanah kediaman. Hasilnya juga memberi juga memberi keputusan yang sama, iaitu pasaran hartanah kediaman didapati terpisah daripada pasaran saham. Pengecualian satu pembolehubah (Indeks Harga Pengguna) yang bekorelasi tinggi dengan pembolehubah tidak bersandar yang lain dalam model ARDL juga tidak mengubah hasil keputusan yang diperolehi. Ini menunjukkan bahawa pelabur boleh mempelbagaikan portfolio melalui pelaburan dalam pasaran hartanah kediaman dan pasaran saham.

Abstract

This thesis examines the long-run and short-run relationship between residential real estate market and stock market in Malaysia during the period of 1988-2004. I take the perspective that real estate prices are the driving forces of stock prices given the fact that the purchase of residential property is an important investment decision to an individual investor. Individual investors are expected to adjust their financial assets allocation based on the changes in house prices with the purpose to maximize their investment utility. Terrace House Price Index and High-Rise Unit Price Index were used as proxies for residential real estate market given the trade-off nature between these properties for an individual investor when come to investment decision.

By using Autoregressive Distributed Lag (ARDL) cointegration procedure, the results suggest that residential real estate and stock market are not cointegrated. Further test was also executed by using the All House Price Index as a proxy for residential real estate. The results remained the same where residential real estate market is found to be segmented from the stock market. An exclusion of a variable (Consumer Price Index) that was highly correlated with other independent variables in the ARDL model also does not change the results. This would indicate that investors could diversify their portfolio by investing in the residential real estate and the stock market.

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CHAPTER ONE

INTRODUCTION

This thesis investigates the integration between Malaysia's residential real estate market and stock market by using Pesaran and Shin's (1995) Autoregressive Distributed Lags (ARDL) approach to cointegration. This is motivated by the fact that there is little understanding of the degree of integration between residential real estate market and stock market in the Malaysian context despite the growing importance of residential property and its growing acceptance by institutional investors as an important assets class in achieving efficient portfolio.

Markets are considered to be integrated when there is no barrier on free capital mobility and assets that command the same risk level provide the same returns across the different markets. Integration studies between stock and property markets have important implication not only for private sector decision making but also aid policy makers in formulating the national housing policy. This thesis intends to add knowledge on Malaysia's residential property market from the perspective of its integration with the stock market.

It is well known that investing in home and financial assets are two major long-term investment decisions faced by an individual investor. I conjecture that changes in house prices should have a significant effect on portfolio selections and asset allocation of most of the public investors in Malaysia. Investors will adjust to the changes in house prices by adjusting their financial assets allocation in order to

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