### **CHAPTER 5**

## Conclusion

#### 5.1 Conclusion of research

The current study aimed to investigate the relationship between public resale /private housing price and macroeconomic factors for Singapore. The pairs are Public resale HPI-CPI, Public resale HPI-GDP, Private HPI-CPI and Private HPI-GDP. More specifically, relationships have been examined using the Engle-Granger cointegration analysis in a dataset that overall spanned 25 years. The main purpose has been to define the long-run and short-run cointegration relationship between the two variables but also examine whether the relationship has intermittent cointegration. Moreover, finally, testing housing market has long-term housing affordability. The results show an intermittent cointegrating relationship between public housing price and CPI indicating that the variables are cointegrated in most but not all-time periods. Other variables are cointegrated in all time periods. This suggests that home prices go together with the price level and household income. Moreover, the cointegrating coefficients for both CPI are GDP per capita in the long-run housing price regressions are significantly larger than one. This indicates that home prices grow significantly faster than the price level and household income, which can affect housing affordability in the long-run.

As a concluding remark, it should be noted that the results and evidence presented in this study, although subject to the limitations imposed by the econometric methods employed and some observations, they still provide an encouraging message to the Singapore towards a better handling in housing price.

#### 5.2 Policy Recommendation

Singapore already has taken most of the available measures to maintain the housing affordability. However, the price keeps increasing faster than those of other goods and services and households' income. The literatures' policies below are being controlled by demand and supply sides to have price stability of housing.

According to the literatures above, the author's suggestion of policies which may suit with Singapore is below

(1) One-third of the people in Singapore are foreigners (David Lee, 2013). Immigration policies which allows more foreigners to live and work in the country. That causes housing price and rental housing increasingly unaffordable. Firstly, rather than selling foreigners without having limitation, government may have limit the numbers of property that would sell to the foreigners. Property tax should be really strict to reduce the foreign demand for Singapore housing and real estate.

(2) Singapore's government helps a lot people to own houses. Home ownership can be said as a very successful since the ownership of housing is above 90%. The housing market in Singapore has been in a severe state of disequilibrium arising from unexpected housing shortage in a supply constrained market with a subsidized sector. This has caused market prices to appreciate across the board with the need for several rounds of market cooling measures. The government should aim price stability policies as well as home ownership. Policy which has the supply target vacancy rate for HDB and private sector.

# 5.3 Suggestion for further study Chiang Mai University

Due to the lack of data, we have done only for 25 years data. We would like to recommend using Bayesian Conditional Cointegration Method, which is just published by Chris Bracegirdle and David Barber in 2016. It's the appropriate methodology to fit in with this study, especially for those studies that the sample size is small. And forecasting housing price of Singapore in the future can do in the further study.