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Determining the most resilient real estate market segment in the residential sector throughout the economic cycle waves, for the innercity of Johannesburg

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ABSTRACT

The research study seeks to determine the most resilient residential real estate market segment throughout the economic cycle waves, for the innercity of Johannesburg, South Africa. The study is prompted by various global reports that subtly suggests a uniform effect to real estate market segments throughout economic cycle waves. Such reports have adopted various indices as proxy to economic cycle waves (e.g. interest rates, current account deficit, gross domestic product, etc.) and house price as proxy to real estate market segments in an attempt to justify the relationship between the proxies. For purposes of this research report, business cycles are employed as proxy to economic cycle waves whilst house prices are also representative of real estate market segments. In a country that ranks third globally on high inequality, with a gini coefficient of 0.63, it is considered improbable – at the very least - that the performance of real estate market segments would react uniformly to the effects of economic cycle waves. The residential sector is opted as a test case, mainly due to growing number of population and the desperate need for housing to accommodate such high population growth levels. The housing challenge needs to be thoroughly understood so that informed and/or adequate planning can be formulated. The research study follows a Pragmatism Philosophy, which allows for mixed method approach in addressing research questions, in order to meet the research aim and objectives. An Explanatory Sequential research design is used as a form of mixed method approach. The process involves collecting both Qualitative and Quantitative data, integrating the two forms of data, and using distinct designs that involves philosophical assumptions and theoretical frameworks. In this case, Quantitative methods are used to explain Qualitative methods. Priority is given to Quantitative data and the two methods are integrated during the interpretation phase of the research study. Empirical analysis using tools such as Quantile Regressions (e.g.OLS regressions) for a period between 2005 (Q1) and 2015 (Q4) are analysed and discussed. Standard errors and covariances were computed using tools such as the Huber-Sandwich methods, to which an Augmented Dickey-Fuller test was conducted to test for the null hypothesis of a unit root in a time series sample. The Breusch-Godfrey Serial Correlation LM test is also used to confirm the absence of serial correlation at four lags. The ARCH LM test is used to show that residuals are homoskedastic, i.e. that there is no evidence of time-varying variance. A negative and significant coefficient appears only the high price sector, suggesting that the business cycle has a negative impact on house prices in the high residential real estate market segment, displaying negative average growth over the period. House prices in the low and medium residential real estate market segments do not respond to movements in the business cycle, on the average. Property size also displayed a negative impact on house prices in the high residential real estate market segment. The autoregressive parameters for house prices in the low and middle residential real estate market segments are statistically significant at 5% and 10%, respectively. Negative and significant coefficient is recorded for the middle residential real estate market segment as well, at the second quantile.

In conclusion, the low residential real estate market segment appeared to have been the most resilient residential real estate market segment amongst other residential real estate market segments. The middle residential real estate market segment appears to have been a partially resilient, whilst the high residential real estate market segment appears to have been the least resilient. Given these findings, it is submitted that residential real estate market segments need to be considered or assessed individually, in order to formulate adequate strategies for integrated and sustainable human settlements.