THE NEXUS BETWEEN MORTGAGE FINANCING AND ECONOMIC
GROWTH IN MALAYSIA: A COMPARATIVE ANALYSIS OF ISLAMIC AND
CONVENTIONAL BANKS

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DEDICATION

I would like to dedicate this research to

"**ALMIGHTY**"

(*For giving me the strength and knowledge to carry out this research*)

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ABSTRACT

The study examines the impact of mortgage finance on Malaysia economic growth from the fourth quarter of 2006 to the fourth quarter of 2020. An important and distinct case is provided by dual banking system in Malaysia in order to interplay between macroeconomic variables (non-performing loan, house price index, inflation rate, lending rate, and world governance indicators) and mortgage finance provide by Islamic banks (IBS) and conventional banks (CBS). The study employs basic statistics, unit root test, a Johansen cointegration test and Vector Error Correction Model (VECM) for the empirical relationship. Finding of the study shows that, both in the short-run and long-run, there is positive and significant relationship mortgage finance and economic growth. Furthermore, Granger causality test is employed to examine the causal relationship between economic growth and the defined variables used in this study. It is worthy to note that the Granger causality test is not just used to determine the relationship between the independent and dependent variables, but also to ascertain the direction of the causality between them. Finally, for the assessment of parameter stability, the cumulative sum (CUSUM) and the CUSUM of squares (CUSUMSQ) tests are applied. This study conclude that efficient financial system can be led by the availability of mortgage finance. Therefore, in order to boost the development of mortgage finance the government should provide fruitful policies in the medium to long terms.

ABSTRAK

Kajian ini mengkaji kesan pembiayaan gadai janji terhadap perkembangan ekonomi Malaysia dari suku keempat tahun 2006 hingga suku keempat tahun 2020. Satu kes yang penting dan nyata telah disediakan oleh sistem dwi perbankan di Malaysia untuk saling mempengaruhi antara pembolehubah makroekonomi (pinjaman tidak berbayar, indeks harga rumah, kadar inflasi, kadar pinjaman, dan penunjuk tadbir urus dunia) dan kewangan gadai janji yang disediakan oleh bank Islam (IBS) dan bank konvensional (CBS). Kajian ini menggunakan statistik asas, ujian punca unit, ujian kointegrasi Johansen dan Model Pembetulan Ralat Vektor (VECM) untuk menghasilkan hubungan empirikal. Hasil kajian ini juga menunjukkan hasil dalam jangka pendek dan jangka panjang. Hubungan yang positif dan ketara antara pembiayaan gadai janji dan perkembangan ekonomi juga telah didapati. Tambahan pula, ujian kausaliti Granger telah digunakan untuk mengkaji hubungan antara perkembangan ekonomi dan pembolehubah yang telah digunakan dalam kajian ini. Ujian kausaliti Granger bukan sahaja digunakan untuk menentukan hubungan antara pembolehubah bebas dan bersandar, tetapi juga dapat menentukan kesan antara satu pembolehubah dengan pembolehubah yang lain. Akhir sekali, untuk membuat penilaian kestabilan parameter, ujian jumlah kumulatif (CUSUM) dan CUSUM kuasa dua (CUSUMSQ) telah digunakan. Kesimpulannya, sistem kewangan yang cekap boleh diterajui oleh ketersediaan pembiayaan gadai janji. Oleh itu, untuk meningkatkan pembangunan kewangan gadai janji, kerajaan harus menyediakan dasar yang bermanfaat untuk jangka sederhana hingga jangka panjang.

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LIST OF ABBREVIATIONS

ADF	–	Augmented Dickey Fuller Test
AIC	–	Akaike Information Criterion
BNM	–	Bank Nagara Malaysia
CBS	–	Conventional Banks
CPI	–	Consumer Price Index
GDP	–	Gross Domestic Product
GNI	–	Gross National Income
HL	–	Housing Loan
HPI	–	House Price Index
IBS	–	Islamic Banks
IFI	–	Islamic Financial Institutions
IFS	–	International Financial Statistics
IMF	–	International Monetary Fund
KPSS	–	Kwiatkowski, Phillips, Schmidt. And Shin, 1992
LR	–	Lending Rate
NAPIC	–	National Property Information Centre
OLS	–	Ordinary Least Square
PP	–	Phillips-Perron Test
WGI	–	World Governance Indicators

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CHAPTER 1

INTRODUCTION

1.1   Background of the study

The aim of any economy is to raise the standard of living of its people by achieving long-term sustainable growth. Physical and financial capital, Natural resources as well as human and the workforce are the fundamental contributors to the economy. Malaysia is one of the countries that developed successful solutions to the social and economic issues in the Muslim world. According to an estimate by World Bank (2021), Malaysia's economy has had an upward trend of 5.4% since 2010, and it is projected to become a high-income nation by 2024. Recently, financial sector has played a signifiant role in a country's economic growth by providing the liquidity and free flow of capital in the marketplace. The economy thrives when the financial sector is robust, and organizations in this sector are expert to handle risks. The growth of banking institutions, Interest rate liberalisation, and financial markets, notably the stock market, are all important features of Malaysia's financial development. The financial development of Malaysia is divided into two stages. The first refers to liberalisation of interest rates and banking system reform, while the second includes advancements in the stock market and other financial systems. In the process, financial developments in Malaysia have accelerated, and the country has become more connected with the global financial markets (Ibrahim, 2007).

The financial sector is unique because of the risk and uncertainty faced by both savers and investors (Drigă & Dura, 2014). In order to perform their functions, banks provide a broad range of financial services in order to attract clients and satisfy their

needs. The Economist generally refer bank as a mediator between savers and users of capital. Banks are special intermediaries because of their unique capacity to finance production by lending their own debt to agents willing to accept it and to use it as money (Bossone, 2001; Drigă & Dura, 2014). Banks, as borrowing and lending institutions, also provide a variety of additional services including payments, safe-deposit boxes, settlements and money transfers, savings and investment services, foreign currency transactions, payroll services, investment and bill financing, and financial counselling. Lending activities have been among the banking sector's core activities for a long time. Banks perform certain tasks in order to provide the financial services to the customers: the function of deposit' acceptance, attracting temporarily available resources from business and individual customers; the investment function, granting loans for those in need of financial support; the commercial function that enables fund transfer between account holders determined by various activities (Drigă, 2006; Drigă & Dura, 2014). Despite a certain shift towards other activities, demand for credit is still high and thus represents a crucial source of finance for the business sector, but also for many households. Economic activity and economic performance are thus linked to bank lending (Cernohorsky, Libiakova, & Douckova, 2021). Banking contribute to economic development in at least two ways: directly through the expansion of balance sheet items and indirectly through financing. Mortgage financing is one of the example of long term financing in banks.

Mortgage finance, also referred as housing loans, is the credit used from the bank in order to own a home by individuals who do not have sufficient experience. Thereafter, the bank has a mortgage on the purchased house until the customer has completed his credit debt to the bank (Yüksel & Kavak, 2019). Housing sector is essential and crucial for the whole economy (Hanişoğlu & Azer, 2017). If housing sector works properly in the economy, the overall economy will be well-functioning and healthy. A well-functioning mortgage market promotes the growth of housing finance through institutions such as banking, contractual savings, capital markets, and community institutions, which route money between surplus and deficit agents in the housing markets. According to Sunega and Lux (2007), a well-functioned mortgage market also provides a channel for increasing housing market access.

Globally, the rate of mortgage finance growth is expanding at an incredible rate. The housing market and the economy can be improved by mortgage finance in in a number of ways, both directly by facilitating transactions and indirectly by improving the environments in which transactions take place. With respect to the latter, number of studies have suggested that there is a strong relation between housing wealth and consumption expenditures. The Treasury Housing Loan Division (THLD) of the Ministry of Finance offers housing loan by providing financing to public sector employees (Zhu, 2012). Malaysian mortgage market was about 50.34% of GDP in 2019, it was 22.3% in 2008 and 13.1% in 1996. Malaysia's economy has been growing and on upward direction, averaging growth of 5.4% since 2010, and is relied upon to accomplish its progress from an upper center pay economy to a higher income economy by 2024 (World Bank, 2021).
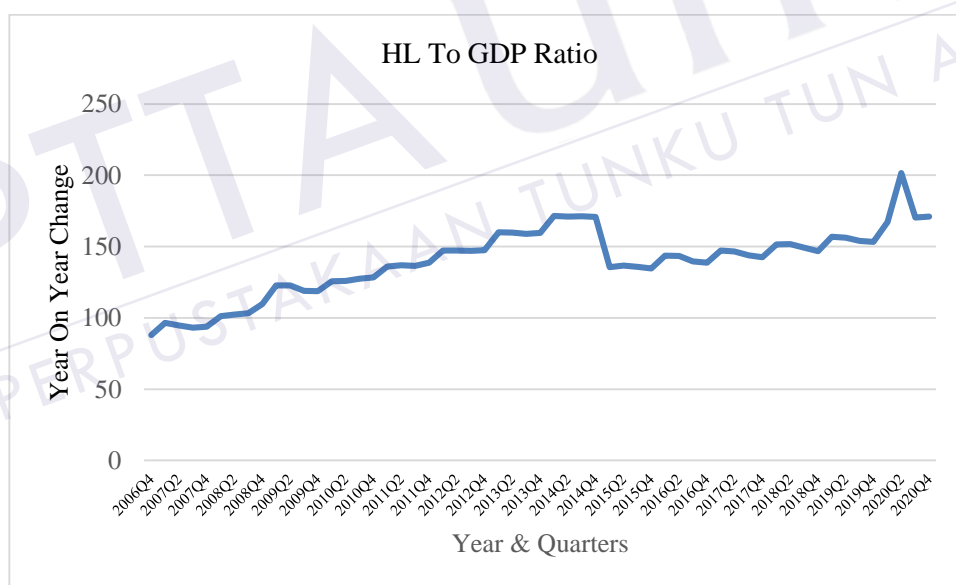
Figure 1.1: Mortgage to GDP Ratio (Bank Negara Malaysia Data, 2020)

As being a part of financial markets, mortgage markets and mortgage loans are important tools of monetary policy. A Additionally, widespread accessibility to minimal mortgages may encourage savings, promote the development of financial market and stimulate investement in the housing sector. As targeting healthier

economies, governments make and review regulations regarding mortgage markets. This study, thus, examines whether economic growth in is the impact of housing loans provided by Islamic and conventional banks in Malaysia.

1.2   Problem Statement

Economic expansion is directly proportional to population and capital. If a country wants to increase real GDP per capita, it must increase the level of capital, the amount of labor, and the productivity of either capital or labor (Solow, 1956). Kendrick (1994) gave out estimates of total investment and capital of the U.S. economy by all sectors that includes human and nonhuman, tangible & nontangible. As indicated by Kendrick, genuine absolute capital stocks ascend at about a similar 2.9 percent normal yearly rate as genuine total domestic product 1929–90, 0.1 percentage points more in the total economy and 0.2 points less in the major and largest business sector (Asabere, McGowan Jr, & Lee, 2016). Thus, the requirement for capital in the form of mortgage financing just cannot be overstated.

The term "mortgage" refers to a loan used to purchase or maintain a home, land, or other types of real estate. According to Aladelusi (2019), a mortgage is an arrangement where a borrower offers his/her legal right to possess or dispose a property as security for a loan. The borrower pays off the loan by monthly instalments of both the principal and interest. Yüksel and Kavak (2019) defined mortgage Finance as the system that is created to meet the needs of the individuals who want to own a house or the institutions that will perform the housing planning projects and to provide the necessary budget. The system is actively identified as a valuable element in the financial market. According to Müller and Noth (2018), long-term maturities and low interest rates are the most important factors for effective housing financing system. The main reason for this is the increase in the difficulty of payment when the maturities are short, and the interest rates are high.

Normally, banking establishments in Malaysia would offer two kinds of mortgage credits: traditional housing loans and Islamic house financing. A traditional

mortgage or conventional mortgage is any kind of mortgage that is presented through private moneylenders, like banks, credit associations, and home loan organizations. Minsky and Kaufman (2008) brought up that increase in asset prices will make conventional banks excessively hopeful and loosen up the loan conditions during times of economic success. If real estate prices go higher, the worth of commercial banks' hold of mortgage assets will increase likewise. In this way, banking business will grow with expanding mortgage property value. Therefore, investigating the relationship between mortgage finance and economic growth in Malaysia may be a big concern to policy makers and even to the society.

Accroding to Calza, Gartner, and Sousa (2003), home financing can be influenced by gross domestic product. A problem occurs when credit grows faster than economic activity. Naturally in this case, the ability of the households to pay the periodic instalments of their loans is impaired, increasing the likelihood of bank default. High rates of mortgage default, together with falling house prices, has triggered recent financial crisis (Crotty, 2009; F. H. E. Usman, 2014).

There are massive literatures available on the link between credit and macroeconomic variables have been done by using coutry specific and cross country analyses (Brissimis & Vlassopoulos, 2009; Cerqueiro, Ongena, & Roszbach, 2016; Fitzpatrick & McQuinn, 2007; Ibrahim, 2006; Li & Ongena, 2015). As for islamic mortgage the studies had been done in the context of legal (Amin, Abdul-Rahman, & Abdul-Razak, 2013), theory testing (Abduh & Abdul Razak, 2012; Amin, Hamid, Ghazali, & Sayuti, 2019; Ramayah & Razak, 2008), market survey without theory adoption (Tameme & Asutay, 2012), and qualitative (Shuib, Sulaiman, & Mohamad, 2011). Furthermore, few studies in Islamic mortgage have been on comparative analysis between Musharakah mutanaqisah and bai bithaman ajil (Abu Hasnat, 2017; Osmani & Abdullah, 2010; Razak, 2011). Apart from that, a large portion of the research in the areas of islamic finance has been on the quality management, liquidity management, profitability, quality administration, risk and service management, corporate social responsibility and performance of the Islamic banks.

Most of these studies have employed larger credit aggregates rather than home financing. Besides, the researchers could not track down any comparative findings on

the conventional home loan mortgage with the Islamic motgage financing. This gap in literature motivates this study to investigate the relationship of macroeconomic variables and mortgage provided by conventional and Islamic banks in Malaysia. This study provides a view of mortgage financing, the largest debt, which will provide the option to potential buyers to purchase a home.

1.3 Research aim

This research aims to evaluate the effect of mortgage financing by dual banking system on the economic growth of Malaysia

1.4 Research Questions

Based on the problem and objectives of the study, the following research questions have been formulated to guide the research process.

i) Are there any association exists between mortgage finance provided by conventional and Islamic banks, and economic growth in Malaysia?

ii) Does mortgage finance provided by conventional and Islamic banks have a significant long-run and short-run impact on economic growth in Malaysia?

iii) Is there a causal relationship between mortgage finance and economic growth in Malaysia?

1.5 Objectives of the study

Based on the issues discussed in the previous section, the objectives of this study are derived as follows:

i) To evaluate the association between mortgage finance provided by conventional and Islamic banks, and economic growth of Malaysia.

ii) To examine the short run and long run impact of mortgage finance provided by Islamic banks on the economic growth of Malaysia.

iii) To evaluate the causal relationship between mortgage financing and economic growth in the country.

1.6   Significance of the study

The goal of any research is to provide information to a target audience which could be government institution, group of individuals or corporate organizations. Bearing this in mind, this research is deemed to be beneficial to the following:

i). In the 10th Malaysian Plan and the new economic model (NEM), one of the primary goals of the Malaysian government is to bring inclusivity to all of its policies. By understanding the importance of mortgage financing, this study will provide the needed information to government in order to formulate laws and policies that will support financial institutions.

ii). This study will benefit academicians, bankers and other industry practitioners, policymakers and the general public by providing new knowledge and country specific evidence on the dynamic relationship of gross domestic product, house prices, consumer price index, world governance indicators, and interest rate on home financing using Malaysia as a case study.

iii). This study will indicate some recommendations through analysing the interaction of key variables of mortgage finance and economic growth.

1.7   Scope of the study

This study seeks to explore mortgage financing provided by Islamic and conventional banks in Malaysia and presents hypotheses for answering the research questions defined in the previous section by evaluating literature for a comprehensive analysis and synthesis. To examine the importance of mortgage financing provided by Islamic and conventional banking business in Malaysia, the study contains a quantitative analysis in order to formulate policies that will positively affect economic growth.

The finding of this research is expected to contribute to the benefits of the banking sector practically as the banking industry plays an essential role in the economic growth of the country. Therefore, the present research assessed the relationship among mortgage financing and economic growth in Malaysia which covers the quarterly data of 24 years over the period of 2006Q1 to 2020Q4.

1.8   Thesis structure

The thesis is structured into five chapters. Figure 1.1 depicts the flowchart of the organization of the thesis.
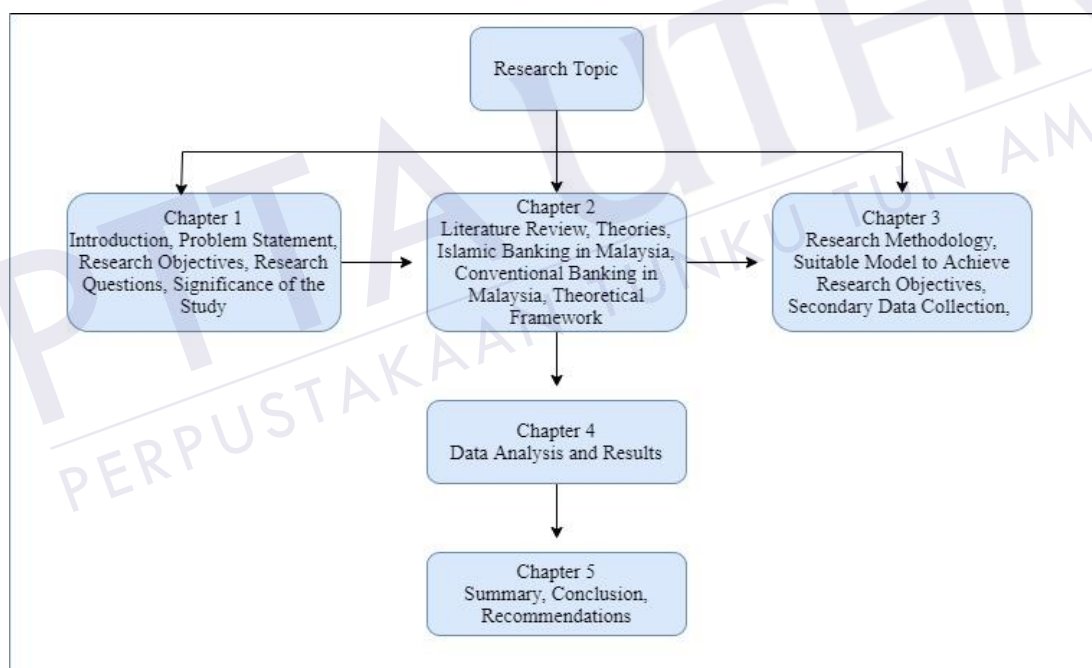
Figure 0.2: Organization of Thesis (Researcher, 2021)

Chapter one presents the background of the study, objectives of the research and the research problem, research frame and the scope of the study. This chapter causes the origins of the problem statement of this study and shows the flow. The rest of the thesis is structured as follows.

Chapter 2 covers the mortgage financing and economic growth literatures from the past. The framework of the research was created based on the review of the literature.

Chapter 3 presents the research methodology, comprising of the suitable research design, sampling, data collection and technique for data analysis. It discussed the research approach adopted in the research. Additionally, the strategy utilised for data collection, as well as the instrument selected, were also described.

Chapter 4 represents the data collected and shows the result of the collected data arrived at using descriptive statistical techniques, correlation analysis, cointegration analysis and Vector error correction model. The data analysis and results were also discussed.

Chapter 5 summarized the results analysed in chapter 4. The research implications and contribution were discussed. Recommendation for further research was also offered. Finally, the chapter concludes results of findings.

CHAPTER 2

LITERATURE REVIEW

2.1   Introduction

The literature review is an integral part of research planning. The study reviews its literature relevant to the subject matter from journals, articles, books and available reports from relevant bodies related to this work. It provides a foundation for research and triggers creative thinking. The literature review also assists in identifying appropriate research methods and techniques plus helps in formulating a discussion about implementations of the research. Therefore, a review of related literature will be needed in this study to examine the related theoretical foundations.

This chapter describes the theories, economic growth, mortgage financing and the banking sector in a sequential order.

2.2   Economic Growth

Economic development is chiefly characterized as expansion in the total production in a country starting with one time frame then onto the next that is estimated as a percentage change in the genuine GDP (Bakan & Gökmen, 2015). One more meaning of the economic development that could be a proportion of development is the GDP per capita which is assessed for a singular degree of pay development starting with one period then onto the next. It may be estimated in ostensible or genuine terms. In least complex terms, economic development refers to an expansion in aggregate production

in an economy. Usually but not necessarily, accumulate gains in production compared with increased average marginal productivity. That prompts an increment in wages, motivating consumers to open up their wallets and purchase more, which implies a higher material personal satisfaction or standard way of life.

Economic growth keeps on being one of the most significant and invigorating sub-spaces of financial aspects. Its importance comes from the inquiries it centres around. The issue of financial improvement stays a significant one for humankind in general and for economic matters as a science. When Adam Smith laid a considerable lot of the establishments of present-day economies, there was a little difference between the richest and poorest countries (Acemoglu, Johnson, & Robinson, 2002). From that point forward, the gaps between the rich and poor have expanded to a level that would have been unfathomable to the eighteenth and nineteenth century economic experts. At the root of this incredible difference is the differential development experience all throughout the world.

A few, in the same way as others in Western Europe and western European areas all throughout the world, have grown quickly during the nineteenth and mid twentieth centuries while numerous others have deteriorated. This differential development prompted a gigantic gap in pay per capita and expectations for everyday comforts that proceeds right up 'til today. Normally, financial development additionally has the ability to quickly close such gaps as represented by the countries like Japan, South Korea, Singapore and more recently China. Hence, the outcomes of a couple of percent changes in the development pace of a country can have huge ramifications for the prosperity and living standards for its residents in one or two generations.

Research in economic history and management(Christensen & Raynor, 2013; Maddison, 2001; Mokyr, 2016) has unequivocally added to the comprehension of the speedy growth in purchasing power in the course of the last 200 years, in what has come to be known as the Great Enrichment. There is a lot of understanding with regards to the beginning dates for the Great Enrichment and the number of development gushes out in sudden showed up in hundreds of years past in Ancient

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List of Publications

1)   Saima Afsheen, Mohd Lizam (2022) ''The Relationship between House Prices and Economic Growth in Malaysia: An Empirical Analysis'' 7th North American Conference on Industrial Engineering and Operations Management (IEOM) at Orlando, Florida, USA, June 6-8, 2022. (**Publication in Progress**)

VITA

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