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An Alternative House Financing Model

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ABSTRACT

This paper examines an alternative financing model to overcome housing affordability in Malaysia. Housing affordability remains a primary concern for the Malaysian government, although various affordable house financing options have been introduced to assist those in the middle income (M40) and lower income (B40) groups buy a house. Various factors, such as the slower growth of household income compared to the increase in house prices, have contributed to the unaffordability for different population segments. As the issues continue to persist, innovative ways of house financing need to be considered to overcome the persistent problem of housing affordability in Malaysia. The proposed housing financing model in this paper is based on the "bausparen system" currently practiced in Germany, Austria, and many other countries, with the additional support of government funding. It is hoped this new financing model can overcome the prolonged property overhangs in the residential market.

1 Introduction

Property markets have long been acknowledged as a crucial source of risk to financial stability and economic growth in most countries. In the Malaysian context, the property industry accounts for about 10% of the national GDP. The property construction industry alone contributed up to 9.8% to the GDP in 2018 (Department of Statistics, 2019).

The issue of providing affordable housing has been the major concern for governments in most countries (Rangel et al., 2017). Su Ling et al. (2017) reported that the mismatch of house prices and housing affordability resulted in a decades-high number of unsold residential properties. One factor contributing to this mismatch is slower growth of household income relative to the growth in house prices. The problem is particularly critical for those in the B40 group. Ismail et. al (2020) found that house prices and household affordability gap force some households to rent poor-quality housing and neighbourhood and resulting in housing stress and deteriorating household well-being. Suhaida et al.

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(2010) posited that housing affordability contributes to socioeconomic stability and the development of the country.

Owning a home is a fundamental dream of all Malaysians, irrespective of their financial background. The Khazanah Research Institute (2015) showed that many blue collar workers in Malaysia have difficulties buying a house. For them, the affordability of a standard house is four times higher than their median income. This shows that the issue is urgent and needs to be addressed. Cheah and Almeida (2016), in a report published in the Bank Negara Malaysia Quarterly bulletin, highlighted that housing affordability remains a major concern due to the escalating house prices. They proposed that policymakers establish a single entity to focus on developing affordable housing initiatives.

In Malaysia, home financing has long been viewed with great concern. Lower and middle income groups find it difficult to access house financing as they do not meet the loan eligibility requirements due to escalating house prices. Therefore, alternative home financing is highly recommended in order to bypass the ordinary route of bank financing.

2 Housing Affordability in Malaysia

Housing affordability is a matter of concern for the Malaysian government. Various initiatives have been introduced to overcome this problem. Ling, Almeida, and Wei (2017) identified three factors that contribute to the housing affordability problem.

a. Growth in house prices is rising faster than income growth

The statistics from Bank Negara Malaysia (Malaysian Central Bank) reveal that, from 2007 to 2016, house price growth was about 26.5% while income growth was only 12.4%. However, the price growth slowed to 5.7% from 2014 to 2016 due to governmental intervention. The imbalances in growth between house prices and income resulted in many houses becoming unaffordable to all segments of the population.

b. Mismatch between supply and demand

As of third quarter 2021 (DOSM, 2021), the Malaysian population was an estimated 32.67 million people, 16.63% of whom were 15-24 years old and while 40.86% were 25-54 years old. With the majority of the population consisting of younger people, the demand for affordable homes will continue to grow. From 2014 to 2016 (Ling et al., 2017), there was an average supply of 114,000 new houses, lower than the formation of 154,000 new

households. Moreover, the price of houses that this group could afford did not meet the demand. The latest statistics from third quarter 2021 show that 74.5% of houses cost more than RM300,000 (above the median price) in Malaysia (Napic, 2021).

c. New residential constructions skew more toward unaffordable range

In 2016-2017, only 35% of Malaysian households could afford housing priced below RM250,0000, yet only 24% of new constructions were within the range. This suggests that new constructions skewed more toward high-end residential properties. This is further supported by the latest data (NAPIC, 2021) on the overhang supply of residential properties, which shows that 74.5% of overhang properties are priced above RM300,000 and valued at RM18.25 billion.

One way to measure housing affordability is by using the widely used median multiple (Demographia, 2021). The formula is:

$$\label{eq:median_multiple} \mbox{Median multiple} = \frac{price \ to \ income \ ratio \ of \ the \ median \ house}{Gross \ median \ household \ income}$$

This formula defines four categories of housing affordability, ranging from affordable to severely affordable:

Table 1: Housing Affordable Ratings

Housing Affordability Rating	Median Multiple
Affordable	3.0 & Under
Moderately Unaffordable	3.1 to 4.0
Seriously Unaffordable	4.1 to 5.0
Severely Unaffordable	5.1 & Over

Source: Demographia (2021)

In Land and Housing Surveys, studying 200 cities around the world, Kallergis (2018) concluded that housing affordability is a severe crisis in cities around the world, with an average median affordability of 6.2. The affordability deteriorates when the population of cities increases and the density of the urban expands. Demographia's most recent survey of cities in nine nations showed a similar pattern.

The data in Table 2 reveal that, in most cities, housing affordability is in the severely unaffordable categories. The OECD (n.d.) reported that housing affordability worsened due to increasing house prices. Lower, middle, and upper income households spend close to 40% of their household income on housing; this share has increased greatly over the

Table 2: Major Market Housing Affordability Ratings By Nation

Nation	Affordable (3.0 & Under)	Moderately unaffordable (3.1-4.0)	Seriously Unaffordable (4.1-5.0)	Severely Unaffordable (5.1 & Over)
Australia	0	0	0	5
Canada	0	1	1	4
China: Hong Kong				
Only	0	0	0	1
Ireland	0	0	0	1
New Zealand	0	0	0	1
Singapore	0	0	1	0
United Kingdom	0	3	9	9
United States	4	20	17	15
Total (no. of cities)	4	24	28	36

Source: Demographia (2021)

years. The increase in the house price index over the years has contributed greatly to the unaffordability of houses around the world.

The Ministry of Finance (2021) revealed that Malaysians also face seriously unaffordable houses. Table 3 shows the median multiple data for housing affordability in Malay-

Table 3: Housing Median Multiple Score by State, 2016 and 2019

State	Median ho (MYR)	ouse price	orice Median income (MYR) Median multiple score		multiple	Level of affordability 2019	
	2016	2019	2016	2019	2016	2019	
Malaysia	298,000	289,646	62,736	70,476	4.8	4.1	Seriously unaffordable
Johor	330,000	350,000	67,818	77,124	4.9	4.5	Seriously unaffordable
Kedah	196,000	199,100	45,726	51,900	4.3	3.8	Moderately unaffordable
Kelantan	199,900	210,000	36,944	42,756	5.4	4.9	Seriously unaffordable
Melaka	205,000	200,000	67,061	72,648	3.1	2.8	Affordable
Negeri Sembilan	270,000	206,750	54,950	60,060	4.9	3.4	Moderately unaffordable
Pahang	239,000	218,000	47,752	53,280	5.0	4.1	Seriously unaffordable
Pulau Pinang	350,000	285,000	64,909	74,028	5.4	3.8	Moderately unaffordable
Perak	218,800	216,600	48,072	51,276	4.6	4.2	Seriously unaffordable
Perlis	227,000	220,000	50,444	55,128	4.5	4.0	Moderately unaffordable
Selangor	405,000	380,000	86,695	98,520	4.7	3.9	Moderately unaffordable
Terengganu	278,000	255,000	56,330	66,540	4.9	3.8	Moderately unaffordable
Sabah	278,000	300,000	49,325	50,820	5.6	5.9	Severely unaffordable
Sarawak	230,000	313,000	49,960	54,528	4.6	5.7	Severely unaffordable
Kuala Lumpur	520,000	480,000	108,874	126,588	4.8	3.8	Moderately unaffordable
Labuan	240,000	320,000	71,138	80,712	3.4	4.0	Moderately unaffordable
Putrajaya	738,650	260,000	99,300	119,796	7.4	2.2	Affordable

Source: Ministry of Finance, Malaysia (estimate)

Table 4: Residential Overhang

Residential Overhang by Type					
Types	Units	Percent			
Terraced House	6803	22.5%			
High-rise units	18829	62.2%			
Others	4658	15.4%			
Residential Overhang by Price					
Price	Units (Percent)	Value			
Below RM300,000	7,729 (25.5%)	RM1.5 Billion			
RM300,000 - RM500,000	8,605 (28.4%)	RM3.54 Billion			
RM500000 - RM1,000,000	10,208 (33.7%)	RM6.81 Billion			
Above RM1,000,000	3,748 (12.4%)	RM7.9 Billion			

Source: NAPIC (2021)

sia.

Although the median multiple improved compared to year 2016, the ranking is still in the range of seriously unaffordable. At the state level, Sabah and Sarawak fall in the severely unaffordable category. In 2019, the median house price was RM289,646 while the median income was only RM70,746. 00 (about RM5,895 per month). The data here clearly show that housing affordability is the greatest concern for the government.

As of third quarter 2021, 30,290 units remain unsold, more than 60% of which are high-rise units. The average price for high-rise residentials is about RM332,333 (NAPIC, 2021)—well above the average median house price. This price is beyond the affordability level of the median household. If we go by residential overhang by price, more than 74% cost more than RM300,000. Thus, a clear mismatch exists between the supply of and demand for houses. The supply of houses is skewed more to the unaffordable range for the majority of households. The average price is RM408,753 for terraced houses, RM643,262 for semi-detached houses, and RM621,124 for detached houses. Therefore, affordability has moved further out of reach for most households.

Table 5: Housing Affordability by Income Level

House income brackets (RM)	Percentage of households by income bracket (%)	Maximum affordable House Price (RM)
10,000-14,999	11.3	699,560
8,000-9,999	9.3	493,500
6,000-7999	14.6	408,300
4,000-5,999	22.6	318,600
2,000-3,999	26.1	222,150
less than 1999	8.8	112,000

If we look at the housing affordability by income level, only about 20% of households can afford houses that cost RM500,000 or more, yet 56.1% of property overhangs are within this range. In other words, not many households can afford to buy houses in Malaysia. Yap and Ng (2018) identified the major factors affecting housing affordability as income level and house price. They further found imbalances in the supply of and demand for housing in Malaysia. The supply of housing is skewed more toward the highend value, making most houses unaffordable to most households.

One factor that might contribute to the overhang of a property is difficulty securing property financing from banking institutions. There are many loan applicants, but due to stringent bank requirements, it can be difficult for people to get approved for loans. In Malaysia, the difficulty in obtaining financing from private financial institutions has denied buyers access to housing. Therefore, the government needs to better define the regulatory framework and finance policies.

One solution to this scenario is for the government authority to lower financing requirements and to prolong loan tenures. However, banks are commercial entities, and they only extend loans on a commercial basis. Lowering credit requirements would be risky for financial institutions, as it may result in an increased default rate and foreclosure, thereby endangering the financial system (The Edgeprop, 2018). Yusuf, Wahab, and Hamzah (2017) examined house financing offered by conventional and Islamic banks and found that applicants in the lower- and middle-income groups faced hardships in obtaining financing. This could be due to their income level not meeting banks' minimum eligibility requirements.

The Khazanah Research Institute (2021) concluded that government interventions in the housing market have largely been on the demand side by making housing financing cheaper or providing subsidies for home-buyers. Such interventions aim to provide more affordable homes or subsidize housing costs. For example, the Malaysian government, through its agency PRIMA, develops and provides affordable financing for lower- and middle-income Malaysians. At the state level, the government of Sarawak provides a financial grant of RM10,000 for first-time house buyers. Yet such measures are unsustainable in the long run as they can drive up prices, result in more household debt, and incur opportunity costs on government finances that could potentially be used more productively.

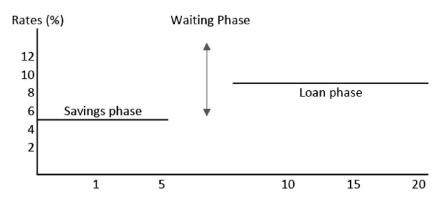
Addressing the target group's access to low-cost housing financing is equally as important as matching the number of households in need and the number houses being provided. For the majority of house buyers, their access to financing from commercial banks is limited, even when willing to pay the current interest rates, which is a result of the escalating house prices and perceived inability of the borrower to repay the loan. This has left many potential home buyers in a quandary, as conventional banking rules demand sufficient loan eligibility requirements to enable banks to assess creditworthiness.

Although such housing problems absorb the impact of the nation's development in housing activity, a state-based housing financing model has rarely been investigated. As a result, we argue the need for Malaysia to consider a state-based housing financing model to serve as a good complement to conventional housing financing.

3 Proposed Model

One factor that might contribute to the overhang of a property is the difficulty in securing property financing from banking institutions. Stringent bank requirements make it difficult for people to be approved for financing. According to Yusuf et al. (2017), in Malaysia, difficulty in obtaining financing has denied buyers access to housing financing. Thus, we propose setting up a home mortgage institution with the primary aim of providing home buyers with alternative financing methods.

The model proposed in this study is based on the bausparen system, or contractual saving institution, which was developed in Germany in the 1920s (HFN, n.d.). The following figure illustrates how contractual saving housing works.



Basic Structure of Contractual Saving Housing

Source: Loic and Michael (2009)

a. In the saving phase, the loan applicant saves cash on a monthly basis for a number of years, during which time the amount saved will earn interest. The savings plus

cumulative interest will then be used as a down payment for the purchased unit. The savers will be informed in advance on the long-term fixed rate loan, which should be lower that the current mortgage loan from banking institutions.

- b. At the same time, the proposed special purpose vehicle (SPV) will invest grants from the government, along with contributions from the savers, in the capital market. The savings from saver and the cumulative profit will be used to purchase a low cost house unit. For example, on BIX (Bond+Sukuk Exchange Information Exchange https://www.bixmalaysia.com/), we can easily find perpetuity bonds that offer a coupon interest up to 7 % per annum; alternatively, the SPV can invest in the equity market, where higher returns are possible.
- c. After the savings reach the agreed-upon threshold level, the applicant will notify the SPV of his/her intention to purchase the unit. Based on a plan of cumulative savings together with the interest or profit earned, the savings can be used as deposit for the home financing, thereby increasing borrowers' equity in the home being financed.

How the SPV works

The proposed SPV will follow the bausparen system in Germany. Bausparen is basically a building society mortgage. It works on the concept of pooling deposits. A group of people who plan to purchase houses in the future can save money in bausparen on a contractual basis. When the savings reach a certain threshold, the savers can apply for a loan from bausparen to buy a house. The saver now becomes a debtor, and the payment will go back into bausparen and, together with the savings from other savers, will be used to extend loans to others.

The following scenario illustrates this idea. Assume the cost of a house is RM100,000.

Without the SPV

One person saves RM10,000 per year for 10 years, meaning he must wait 10 years to own the house.

With the SPV

Ten people pool their RM10,000 per year for 10 years. After year 1, the pooled fund will be RM100,000. At this point, the first saver can apply for a housing loan, which will start being repaid from year 2 onwards. The borrowed fund will go back into the pooled funds. After year 2, the second borrower can borrow money to purchase a house. The

lending continues until the 10th year. By using this method, the waiting period is drastically reduced from 10 years without the SPV to an average waiting period of 5.5 years with the SPV.

Advantages of the proposed SPV

- a. The proposed system is simple and has proven successful in countries such as Austria, Croatia, the Czech Republic, Germany, Hungary, Luxemburg, Romania, and Slovakia. A contract sum of more than 1 trillion euro has been disbursed under this arrangement (EFBS, 2020).
- b. In the SPV, savers can build up equity through their savings, which lowers the amount needed for financing and, thus, loan repayments. Meanwhile, by making the monthly deposit to savings, the saver can demonstrate creditworthiness for the servicing of the loan.
- c. As the SPV is freestanding and detached from interest rates, the saver can budget monthly commitments without worrying about fluctuations in payments due to changing interest rates.
- d. If the SPV can attract a lot of savers, the SPV can also negotiate with the developer of the housing project on the pricing of the units offered. For example, for high-rise residentials, if a number of savers are interested in the project, the SPV can negotiate a lower price from the developer as it will be buying in quantity. A 10% to 30% discounted price on a number of units will significantly reduce the price, benefitting the savers. For developers, they are willing to dispose of their units at a lower price as unsold units put an unnecessary burden on their financial obligations.
- e. The proposed model will greatly benefit young savers who can start saving early and accumulate more equity through their savings.

4 Conclusion

Overhang properties and housing affordability have become major concerns not only in Malaysia, but also most countries in the world. The current requirements of conventional and Islamic banking for people applying for housing are limiting for house buyers due to lower incomes and higher housing costs. Reduced loan eligibility contributes to the number of overhangs of residential properties, whose prices surpass the median house price and are out of reach of homebuyers earning lower median income for Malaysians. It is hoped that the proposed framework will contribute to overcoming the

housing affordability challenges in the long run. The current government interventions are short-term measures that are not sustainable for the long run.

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