

Demystifying the Affordable Housing Issue in Malaysia

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Introduction

Since 2012, the increase in house prices in Malaysia has outstripped the rise in income levels. Consequently, prevailing median house prices are beyond the reach of most Malaysians. This is primarily attributable to a gross mismatch between housing supply and demand amid diverging expectations between households and developers. The issue has been compounded by the fact that the distribution of new housing supply has been concentrated in the higher-priced categories. The undersupply of housing is particularly acute in the affordable housing segment. The provision of affordable homes has become a challenge for policymakers worldwide, with Malaysia being no exception. It is a similar problem in the United States (US), United Kingdom (UK), Australia and New Zealand (*Demographia International, 2015*). This article¹ aims to define what affordable housing means in the Malaysian context, given income levels and demographic factors. With this, the level of affordable housing supply needed at present and in the future is estimated. The article then identifies some of the policies used by other countries in addressing the shortage of affordable housing which provide important policy lessons for dealing with the situation in Malaysia.

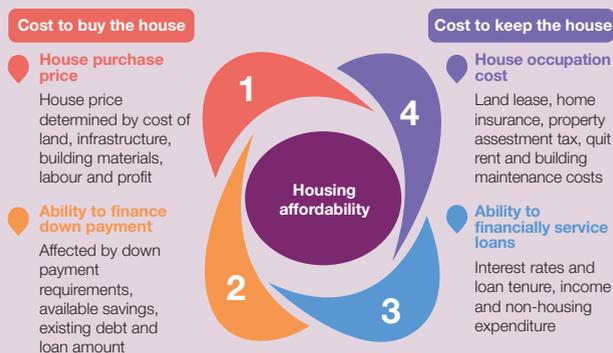
Defining Housing Affordability

Affordable housing is broadly defined as housing which is adequate in quality and location, and is not so costly that it prevents its occupants from meeting other basic living needs². Given the broad scope³ of what constitutes affordable housing, this article focuses on the financial affordability of housing to gauge the extent to which house prices in the market are beyond the financial means of households in Malaysia.

According to UN-HABITAT, the financial affordability of housing is affected by two key components: (i) cost of purchasing the house, and (ii) cost of keeping the house (Diagram 1), which are in turn influenced by property prices, the amount of down payment required and size of financing obtained, as well as the ability to finance the maintenance of the property and

Diagram 1

Basic Components of Financial Affordability of Housing



Source: Adapted from UN-HABITAT (2011)

¹ This article is an extension to the Box Article on 'Assessing Demand-Supply Conditions in the Malaysian Property Market', in Bank Negara Malaysia's Annual Report 2015.

² According to the United Nations Human Settlements Programme (UN-HABITAT, 2011).

³ A broader definition of affordable housing refers not only to affordability in terms of prices, but extends to housing which meets minimum decent standards of living (basic amenities, floor-space, sanitation, without structural building defects) and that is located not too far away from centres of employment, usually one hour away (McKinsey Global Institute, 2014).

monthly mortgage repayments. Given the broad dimensions of affordable housing, several housing affordability metrics have emerged. While there is no universal standard in defining housing affordability, there are however, three approaches that are commonly used, namely the Median Multiple, the Housing Cost Burden and the Residual Income.

According to the Median Multiple (MM)⁴ methodology developed by Demographia International to evaluate urban housing markets, a house is considered affordable if it can be financed by less than three times a household's median annual income. The median multiple of 3.0 is based on the historical trend in six nations⁵ where housing affordability ranged between 2.0 to 3.0 until the 1980s or 1990s. While the accuracy of which the MM indicates an affordable housing market may vary between countries, it is nevertheless a useful broad measure for comparing housing affordability. Secondly, going a step further and taking into account the availability of credit, housing affordability can be thought of as a percentage of household income that is spent on housing. This is the Housing Cost Burden (HCB) approach, commonly used in the US, Australia and the OECD countries. The approach⁶ is based on the rule of thumb by which housing expenditures⁷ of less than 30 percent of household income⁸ are deemed affordable. Households that pay more than 30% are considered housing cost-overburdened, as they risk not having sufficient income for other necessities such as food, transportation and healthcare. The third measure is the Residual Income (RI), which is a more granular approach. The RI considers first, the basic necessities of household costs, and subtracts these costs from the income of a household. What is left is the "residual" income. This would reflect the household's capacity to spend on housing (e.g. mortgage repayments). The RI approach is used by some commercial banks to evaluate mortgage applications. Table 1 depicts a comparison of the three metrics.

Table 1

Comparison of Affordable Housing Metrics

Macro-level method	Approach	Definition of housing affordability	Advantages	Disadvantages
↓ Micro	Median Multiple (MM)	Median house price that is three times or less than the annual income of the median household (e.g. house price-to-income ratio of 3.0 and below).	Easy to calculate. Allows comparison of housing affordability across countries and within a country over time.	Ignores the role of credit.
	Housing Cost Burden (HCB)	Housing expenditure (e.g. mortgage repayment) that is less than 30% of household income.	Considers the effect of leverage and non-housing expenditures of household. Allows comparison of housing affordability across countries and within a country over time.	Rigid threshold of 30%. Accuracy of cross-country comparison could be affected by differences in cost of living and repayment structure of mortgages across countries.
	Residual Income (RI)	Residual income (after deducting non-housing costs) that is sufficient to service monthly mortgage obligations.	Considers the effect of leverage and the household's spending patterns. More reflective of a household's ability to purchase a house.	Limited cross-country comparability. Requires detailed data on household income and attributes, cost of living and housing costs.

Source: Demographia International (2015), UN-HABITAT (2011), Fannie Mae (2016)

⁴ Recommended by the World Bank as well as the United Nations (UN). It is also used by the Joint Centre for Housing Studies, Harvard University, US.

⁵ Australia, Canada, Ireland, New Zealand, UK and US.

⁶ Developed by the US Department of Housing and Urban Development.

⁷ Total housing costs include mortgage principal payments and interest payments or rent, house insurance, mandatory services and charges (sewage and refuse removal), regular maintenance and repairs, taxes and the cost of utilities (e.g. water, electricity, gas and heating). For renters, these costs are counted if paid by the tenant.

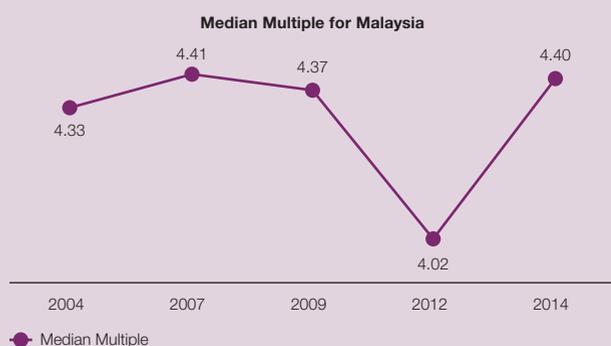
⁸ Household income includes income from work, social benefits, investments and other household income. Disposable income (household income, after taxes and deductions) is sometimes used, as in OECD (2016).

Assessing the Affordability of Houses in Malaysia

Using the MM approach, the ratio of median house price to the median household income has consistently exceeded 3.0 since 2004. By 2014, the housing affordability ratio was 4.4⁹, indicating that houses in Malaysia as a whole, were 'seriously unaffordable' (Chart 1). Within Malaysia, house prices range from 'affordable' in Melaka (affordability ratio of 2.98 in 2014) to 'severely unaffordable' in Terengganu¹⁰, Kuala Lumpur, Penang and Sabah (ratio above 5, Chart 2).

Chart 1

House Prices in Malaysia Have Been Consistently Above the 3.0x Affordability Standard



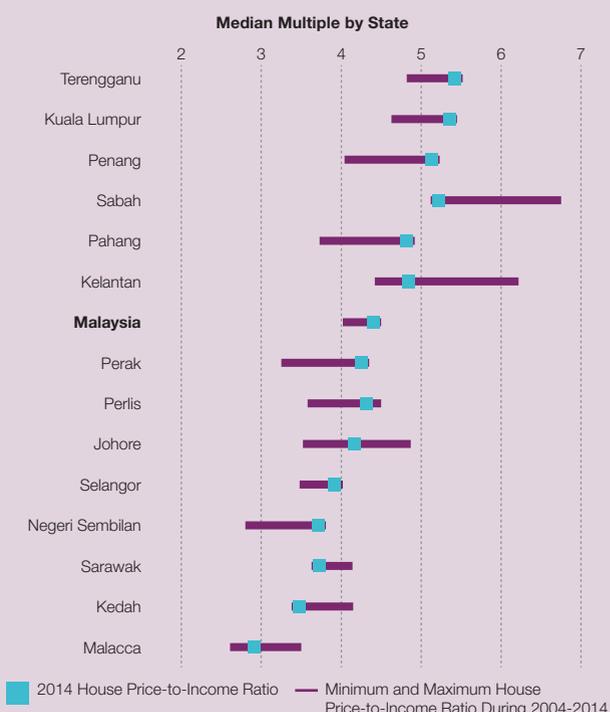
Median Multiple Approach: Affordability Thresholds

Rating	House Price-to-Income Ratio
Severely Unaffordable	5.1 & Above
Seriously Unaffordable	4.1 to 5.0
Moderately Unaffordable	3.1 to 4.0
Affordable	3.0 & Below

Source: Demographia International (2015), National Property Information Centre, Department of Statistics, Malaysia and Bank Negara Malaysia estimates

Chart 2

Houses in Most States are Unaffordable for Households Earning the Median Income



Source: Department of Statistics, Malaysia, National Property Information Centre and Bank Negara Malaysia estimates

Estimates using the HCB and the RI methodologies broadly concur with the above findings. Both the HCB and RI approaches consider housing loans as supporting the ability of households to purchase homes. The price of an affordable house under these two approaches is equivalent to the maximum amount of housing loan¹¹ that the household is able to obtain. This enables the household to afford a house at a higher price than that under the MM approach, which is an indication of the number of times median house prices exceed annual household income without the aid of a housing loan. The price of an affordable house under the RI approach is in turn higher than in the HCB approach. This is because the RI approach releases the 30% housing-cost expenditure constraint imposed by the HCB, acknowledging that households of different income brackets may spend different proportions of their income on housing and non-housing expenditures.

⁹ Latest median household income data available was in 2014 (DOSM, 2014). Using the MM approach, houses in Malaysia were less affordable compared to US (house price-to-income ratio of 3.6), Canada and Ireland (4.3), but more affordable than in UK (4.7), Singapore (5.0), Australia (6.4), New Zealand (8.2) and Hong Kong (17.0) (Demographia International, 2015).

¹⁰ In Terengganu, growth in house prices (2012-2014: 14.1%) outstripped that of household income (11.6%).

¹¹ Other factors considered include prevailing interest rates, 90% loan-to-value and loan tenure of 35 years. Calculations consider the disposable income of households (gross income minus EPF, SOCSO and income tax).

Chart 3

In 2014, Houses are Considered Affordable in Malaysia and in Some Key States...

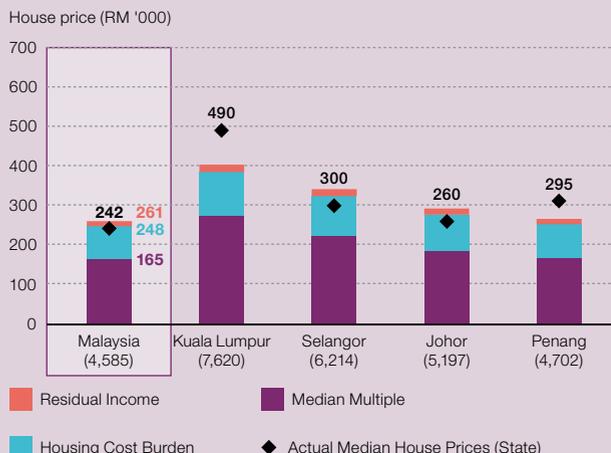
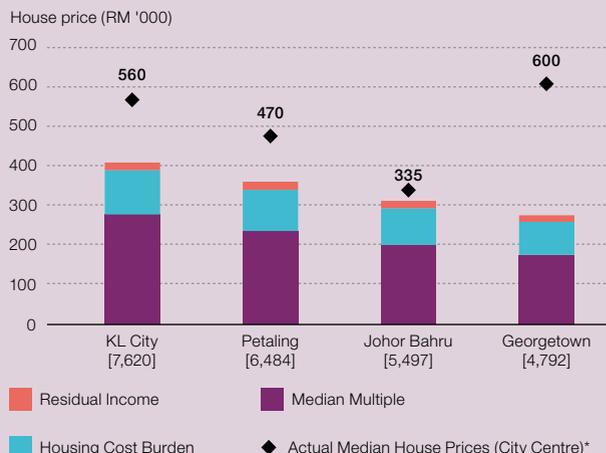


Chart 4

...but Unaffordable in Major Urban Centres in the Four Key States



Note: Figures in parentheses () refer to each **state's** median household monthly income in 2014
 Figures in square brackets [] refer to the state's **urban** median household monthly income in 2014, used as a proxy to the median household income in each urban city

*The cities in each state are based upon the delineation of (i) District: Petaling (Shah Alam, Subang Jaya and Petaling Jaya) in Selangor and Johor Bahru in Johor; (ii) Mukim: Kuala Lumpur Town Centre in Kuala Lumpur and Georgetown in Penang

Source: Department of Statistics, Malaysia, National Property Information Centre and Bank Negara Malaysia estimates

The shaded area in Chart 3 illustrates this point, where the ideal price of an affordable house for a median household in 2014 (monthly income of RM4,585) is up to RM165,060 using the MM approach, but is higher at RM248,000 with the HCB and RM261,000 with the RI approach. In 2014, the actual median price for a house in Malaysia was RM242,000. This suggests that houses were affordable under the HCB and RI approaches. The same conclusion holds for Selangor and Johor. However, houses in the major urban centres were unaffordable according to all three methods (Chart 4). Across all four major urban centres, the prevailing median market house prices were significantly above the ideal affordable house prices. The situation was particularly acute in Georgetown which suffered the highest median house prices and lowest median household income. Given that house prices increased further in 2016, housing affordability continues to be a current issue for households.

Given the variation in methodology, as expected, each affordability measurement yields different results. Yet, they all point to broadly consistent conclusions. Firstly, housing affordability has deteriorated. All three approaches find that housing affordability has deteriorated significantly over the period 2012 - 2014, with significant unevenness across states. Secondly, given that households typically purchase homes with the aid of a housing loan, more weight is given to the findings of HCB and RI approaches, in which houses in Malaysia as a whole, are considered affordable. However, this conclusion should be treated with caution given that it masks significant disparities between states. Finally, all three measures find that houses are significantly unaffordable in the major urban centres in key states, with varying degrees of severity across different locations.

Factors Contributing to Housing Affordability Issues in Malaysia

The issue of affordable housing reflects mainly the supply-demand imbalances in Malaysia, which worsened during the 2012 - 2014 period. During these years, new housing supply fell short of the increase in demand (average supply of 85,000 new units versus the formation of 118,000 new households). This is in contrast to the period 2007 - 2009, when the new supply exceeded the demand for housing (Chart 5).

Secondly, the effect of the supply shortfall on housing affordability was exacerbated by the slower increase in household incomes (12.4%) relative to house prices (17.6%) (Chart 6). Both of these trends were more acute in key states (Charts 5a and 6a).

Chart 5

Insufficient Supply of New Houses Compared to the Increase in Households During 2012-2014



Source: National Property Information Centre and Department of Statistics, Malaysia

Chart 6

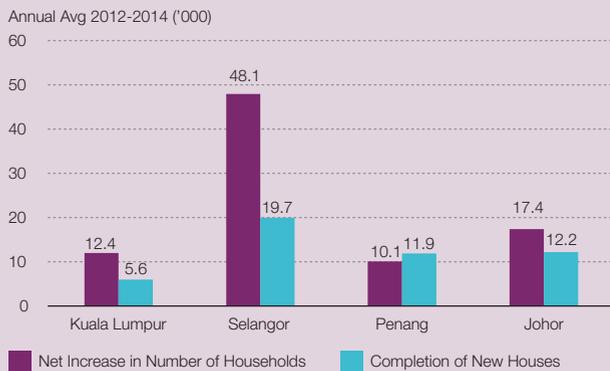
During 2012-2014, the Growth in Median House Prices Has Outpaced the Growth in Median Household Income



*Note: CAGR refers to Compound Annual Growth Rate

Chart 5a

The Undersupply is Evident Across Most Key States in 2012-2014



Source: National Property Information Centre and Department of Statistics Malaysia

Chart 6a

Faster Growth in Median House Prices Compared to Income Levels Across All Key States During 2012-2014



Chart 7

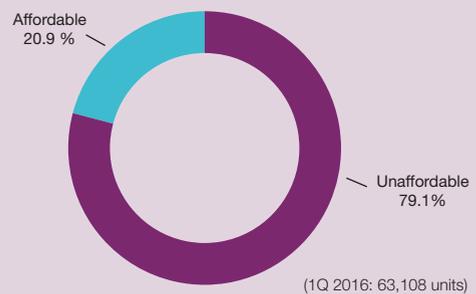
New Housing Launches Have Been Increasingly Skewed Towards the Higher-end Property Segment



Source: National Property Information Centre

Chart 8

Majority of Unsold Houses in Malaysia were Those in the Non-affordable Price Category



Note: Affordable house price estimated with HCB. Total unsold properties include unsold properties that were completed and under construction as at 1Q 2016
Source: National Property Information Centre and Bank Negara Malaysia estimates

A third factor which worsened the housing affordability issue was the trend of higher property launches in the price categories above RM250,000¹² (Chart 7). While there were more launches during 2012 - 2014, the number of new affordable housing units for households earning the median income (below RM250,000¹³) was fewer by 16,200 units per year since the period 2008 - 2009. The oversupply of higher-end properties beyond what households can afford resulted in a significant portion of these non-affordable properties remaining unsold (Chart 8).

Access to Financing for Home Buyers and Industry Players

For home buyers, bank financing for the purchase of residential properties for qualified borrowers continued to be available. Growth in loans outstanding for home purchase averaged at 13.2% during 2012 - 2014 (2008 - 2009: 9.8%). While this moderated to 9.2% in 2016, this moderation was due to the softer housing market. The demand for affordable housing had supported the expansion in end-financing by banks for residential property purchases. As at end-2016, about 56% of loans outstanding were for houses priced below RM250,000, while loans for houses priced between RM250,000 to RM500,000 accounted for another 25%. Rejection rates for housing loan applications also fell further to 23.6% in 2016 (2012 - 2015: 26.1%). These trends are evidence that financing remains ample for eligible home buyers.

Similarly, house builders continued to have access to bank financing. Loans for real estate activities and residential property construction increased at a healthy rate of 11.7% in 2016 (2012 - 2014: 18.5%), reflecting the fewer property launches and incoming supply.

The Level of Affordable Housing That is Needed

On the supply side, it is evident that the housing market has not provided an adequate supply of affordable housing for the lower- and middle-income households. In 2014, the shortage¹⁴ of affordable houses was estimated to be 960,000¹⁵ units. This gap is evident across most states, with Sabah and Sarawak having the highest deficit, accounting for 50% of the total shortage in Malaysia. Among the four states with the highest concentration of urban population, the shortage of affordable housing was largest in Kuala Lumpur, followed by Penang and Johor. On the other hand, Selangor was found to have a surplus of affordable houses. However, this could be an over-estimation given that there is a significant number of low-cost housing in the state that may fail to meet the quality and location requirements of households¹⁶.

While there are multiple programmes by the private sector, and the Federal and State Governments to supply affordable housing, the current level of house-building is not sufficient to meet the demand. If the current trends in population growth, urbanisation and income growth persist, the supply-demand mismatch in the affordable housing segment is expected to worsen going forward. Trends¹⁷ in the country's demography shows that as Malaysia's population increases, the number of households increases at a faster rate than population growth, reflecting the trend of shrinking household size. This suggests that the demand for affordable housing is likely to increase going forward. By 2020, the shortage of affordable housing could very well be more than one million¹⁸ units.

¹² Developers have cited higher land costs, construction materials, labour and compliance costs as some of the reasons for higher property prices.

¹³ The price of an affordable house in 2014 is RM248,000 and RM261,000 using the HCB and RI approaches respectively.

¹⁴ Due to data limitations, the affordable housing gap in this article is estimated based on financial affordability of houses. Ideally, more accurate estimates of the demand of affordable housing should also take into account the requirement of households in terms of quality and location standards of houses, in addition to house prices.

¹⁵ Given that the stock of houses in the affordable price range is not readily available, the estimation is based on the assumption that households can only buy properties they can afford. Hence, the share of affordable housing transactions (i.e transactions occurring up to the price of an affordable house) is used as a proxy for the share of affordable houses in the market. The difference between the stock of affordable houses (supply) and the number of low- and middle-income households (who are likely to demand affordable homes) would then determine the shortage of affordable houses. These steps are repeated individually for each state, and summed up to arrive at an estimated shortage of 960,000 units nationwide in 2014.

¹⁶ Shortcomings of low-cost public housing in Selangor include its location away from institutions of learning and healthcare facilities, as well as building defects such as waterproofing and pipe leakages (Hashim et al, 2012).

¹⁷ From 2000 - 2010, the average annual population growth rate was 1.9%, while the average annual growth rate for the number of households over the same period was 3.2%. Additionally, the average size of households decreased from 4.6 persons per household in 2000 to 4.2 persons per household in 2010 (DOSM, 2010).

¹⁸ Projections are guided by population forecasts in the Eleventh Malaysian Plan and incorporate the trend of affordable housing completions during the period 2014 to 1H 2016.

Policy Lessons in Addressing the Affordable Housing Issue

A shortage in affordable housing is not unique to Malaysia. Other countries have identified both supply and demand-side policies to narrow the affordable housing gap. This challenge requires a multi-pronged approach focusing on four key areas: i) increasing supply and reducing the cost of affordable housing; ii) establishing a central repository as a systematic way of monitoring and managing the demand and supply of affordable housing; iii) developing a thriving rental housing market; and iv) diversifying the sources of financing for affordable homes.

i) Increasing the Supply and Reducing the Cost of Affordable Housing

Addressing the under-provision of affordable houses calls for a more organised approach. The empowerment of a single authority¹⁹ to spearhead the planning and delivery of affordable housing nationwide could unlock scale efficiencies, facilitate the management of a database, as well as to undertake research on policy options to address the affordable housing challenge.

An industrial approach can be used to deliver housing quickly, on a large scale and at a lower cost. Industrial construction techniques to improve labour productivity have shortened the delivery time by 40% - 50% and reduced costs by 30% (*McKinsey Global Institute, 2014*). Additionally, smarter procurement processes such as the establishment of a buying consortia²⁰ have enabled cost savings (via discounts on bulk orders), which can be passed on to the buyers through lower house prices.

ii) Establishing a Central Repository as a Systematic Way of Monitoring and Managing the Demand and Supply of Affordable Housing

In countries which have made significant progress in addressing the housing affordability issue, an integrated database which captures the demand and supply of housing has been useful in helping the provision of affordable housing by the public and private sectors. This central repository, which should ideally be managed and monitored by the single authority mandated to oversee the nation's affordable housing needs, should be updated frequently to reflect the changes in household income as well as the evolving needs and preferences of the households. Regular surveys²¹ can be carried out to keep up with the requirements of households in terms of prices, build-up size, design and location so that future supply can be tailored to reflect their needs.

iii) Developing a Thriving Rental Market

The private rental sector can help reduce the supply-demand gap for affordable housing. In Malaysia, only 24% of households live in rented accommodation²². To manage the demand for affordable housing, rental needs to be a viable option of choice, and not a last resort for households. Policy initiatives in other countries have focused on strengthening the legal and institutional frameworks underlying the rental market.

Globally, governments have safeguarded the rights of tenants and landlords by enacting specific legislations such as Tenancies Act (Australia and New Zealand) or have incorporated these qualities into their Federal Law (Germany). Tenancy protection includes having an enforceable tenancy agreement and a tenancy deposit mechanism involving a neutral third party²³ to protect a tenant's rights to deposit recovery while allowing the landlord to use the money in case the tenant breaches the tenancy agreement.

¹⁹ Singapore's Housing Development Board (HDB) builds and manages affordable homes. About 80% of its population lives in HDB flats. In Korea, the Land and Housing Corporation constructs affordable housing units for the vulnerable, including for rental.

²⁰ The UK Procurement Efficiency Initiative for social housing achieved 15% - 30% savings on material costs (*McKinsey Global Institute, 2014*).

²¹ Sample Household Surveys (SHS) are carried out by the HDB in Singapore on a large scale every five years. The latest survey in 2013 covered 7,800 households living in all 23 HDB towns and estates.

²² This is low when compared to Hong Kong (49%), Japan (38%), New Zealand (35%) and Australia (31%). For more details, please refer to Box Article on 'Assessing Demand-Supply Conditions in the Malaysian Property Market' in Bank Negara Malaysia's Annual Report 2015.

²³ Rental deposits are kept with a third party such as a dedicated government agency (New Zealand Tenancy Services, Residential Tenancies Bond Authority of Victoria, Australia), approved tenancy deposit schemes (UK Tenancy Deposit Scheme, UK Deposit Protection Services) or joint-bank savings account (Germany).

iv) Diversifying Sources of Financing for the Delivery and Purchase of Affordable Homes

Affordable housing development, especially in key economic centres can be cost-prohibitive to developers. Leveraging on private sources is helpful in moving towards a more sustainable market-based approach in the long run. In India, public-private partnerships in a joint-venture model have complemented public channels of financing the supply of public housing (*UN-HABITAT, 2011*).

For households, home financing methods significantly impact affordability. One option is bank financing of housing loans. Following the Global Financial Crisis, innovations in housing finance need to strike a balance between improving access to housing finance for households and avoiding the loose lending standards that could trigger excessive speculation or overburden households that do not have the ability to repay their housing loans. Alternatively, home financing can be supported by creative mechanisms leveraging on multiple sources of funding²⁴ and innovative financing schemes such as shared-ownership which allow buyers to acquire partial interest in a home rather than buying one outright.

Conclusion

The housing market in Malaysia has not been able to provide an adequate supply of affordable housing for the masses. This undersupply of affordable homes is likely to worsen going forward given current trends in income and demographic factors.

Going forward, a carefully-designed strategy of policy interventions is required for the housing market to ensure that it is able to accommodate households of all income groups. Meeting the demand of affordable housing units going forward will require the commitment of both the Government and the private sector. The establishment of a central agency to consolidate the provision of affordable housing as well as a central repository is key. Additionally, reducing costs associated with the development of affordable housing through the implementation of cost-saving and productivity-enhancing technologies would increase the speed and scale of delivery of affordable housing projects going forward. On the demand side, the development of the rental market to bridge the affordability gap could relieve some of the pressure on the Government to build all of the affordable housing needed. This should be complemented by more innovative schemes to fund the delivery of affordable houses. As for end-financing, as in other countries, the Central Bank has introduced macroprudential measures to deter speculative activity in the housing market and to avoid over-borrowing beyond one's means. It is important to note that these measures do not in any way hamper access to financing for eligible borrowers including those who are first-time buyers.

To conclude, while the challenge of bridging the affordability gap is significant, the experiences of other countries show that using a creative mix of innovative and targeted policies, it is not unsurmountable.

²⁴ Mexico has a dedicated housing provident fund (*UN-HABITAT, 2011*).

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