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Market analysis of housing shortages in Malaysia

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Abstract

The cost of accommodation continues to increase despite various government measures in the form of taxes and subsidies. While the market is the most efficient way to allocate resources, to determine housing price, the capital market for housing have very weak mechanism that if left unregulated will be ineffective and inefficient, because the choice may not be the best for the society as a whole. This study is based on literature review and a case study. The case study involved one of the affordable housing schemes in Malaysia. The study demonstrates that to base affordable housing price on market prices are seriously deficient in that it ignore the basic essence of affordable housing provision. There is no real basis for economists' strongly held believe that house prices must be determined by the market to be efficient. The study shows that government can intervene in affordable housing market in various ways to increase homeownership rate.

Keywords: Tax, subsidy, market price, affordable housing, rent ceiling, social interest.

1. Introduction

A market is defined as a situation or arrangement that brings buyers and sellers into a close contact to exchange goods or services. In the market, the price paid for a good or service is determined by the supply and demand forces. Specifically, a market aims to allocate resources and to maximise the welfare of buyers and sellers. With the market structure, a buyer will not ordinarily pay more than the value of the good or service 'earned'. On the other hand, the market allows sellers to make 'rational' profit. The rational choice thinking is well grounded in the mainstream economics principle. Yet, even though the market is considered as the most effective way of allocating resources, it sometimes fails because of factors like price, income distribution and quantity regulation, taxes, subsidies, externalities, public goods, social interests, common resources, monopoly, and high costs of the transaction. In other words, the market mechanisms could also lead to inefficiency [1]. Market failure occurs because of under- or over-production. It is a situation where the market does not achieve 'economic efficiency' due to delivery of 'inefficient outcomes'.

Alternative methods (such as first-come-first-served basis, majority rules, context, lottery, personal characteristics, and force) could sometimes prove to be more efficient. In fact, there is no single mechanism – including the market – that allocates all resources efficiently [2]. Housing is a major industry where price mechanisms or market regulations are applied for efficiency. However, because of income distribution, housing provisions are often controlled by governments. The private sector argues against government controls, based on what some economists say. They contend that not allowing the market to allocate housing would create scarcity, increasing both rental costs, encourage black market, search activity, reduce productivity and cost of ownership. But like education and health, housing is an investment and not consumption. Since the supply of affordable

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housing is mainly in the public interest, it takes into consideration the society as an entity. For instance, housing is a measure of quality of life. For the pensioners or retirees, housing is to them a security issue. For instance, a country with adequate housing would spend less on the preventions and controls of diseases, security, rehabilitation homes, and enhancement in social integration and economic prosperity. Not surprisingly, housing price /rent is a political issue. The market capitalisation for housing has a weak mechanism that, if not regulated, is likely to be ineffective and inefficient. However, to invest in housing provision requires households to have funds. This is where the role of government in the market is crucial. The government can fill these gaps in a number of ways, including providing housing directly, providing funding without houses, or both. The role of government is therefore multiple or triple. Governments fill these gaps by providing subsidies, incentives, loans, lands, to both developers and homebuyers.

From the mainstream economists' perspective, the market is able to reduce both shortage and surplus in the housing market through price mechanism; without government intervention. But unfortunately this theory has not worked and neither will the shortage in the housing supply go away if the economic theory only is considered. The immediate question therefore is why is the market unable to correct the housing shortages [and surplus in some cases due to poor distribution]? Or can it? Again, the immediate answer is that affordable housing is a market failure; therefore, government has to intervene. Government intervenes in housing allocation through the rent ceiling to control prices of houses especially for certain members of the society. Primarily, this based on income and house price. Therefore, government sets a rent ceiling below equilibrium price to increase access to homeowners. But this contradicts the principles in the mainstream economics. In market failure situation, equilibrium does not exist. Public goods represent a kind of market failure. That is, the quantity demand and supply does not reconcile each other. Therefore, issue in market failure required critical examinations in the efforts to proffer solution to housing shortages. Knowing how the housing market operates will enhance understanding to provide some solutions. However, it does not imply that the solution resides only within the market, but government policies are also required. Hence, the questions that required intermediate answers include; how does government formulate the policies on housing supply, how does the government regulate housing supply, what are the objectives of the government policies on affordable housing supply, what are the applicable instruments. The examples of government instruments include regulations, incentive mechanism. However, in this current study, focused is directed to highlight the housing shortage and to provide through an exemplar case study, what happen when government intervene in housing provision. The selection criterion for the selection of the case study was a developer using one of the government affordable housing schemes in her housing development.

2. Research design

Research can be conducted through different methods, but what determining the 'best' method' are the purposes of the research guarded in terms of aim, and objectives, questions and hypothesis. For this purpose, research could be based on the survey, experimental, simulation and some are based on literature review. Similarly, research methods could be described as cross-sectional or longitudinal approach. Research that involves data collection on sites is described as primary research, while research that involves analysis and scrutiny of processed data is described as secondary research. Secondary research hinges on data processed from primary research. Various researchers, including Church [3], have discussed the usefulness of secondary data in research. The present research combined both primary and secondary research. The secondary research used data sourced from the Department of Statistics Malaysia, Economic Planning Unit, Bank Negara/Central Bank of Malaysia, CIDB Malaysia, and Ministry of Finance Malaysia to explain the housing shortages in Malaysia. Data are analysed using IBM SPSS Statistics/PAWS Statistics. The primary research in this study was based on a case study of a developer that specialises in affordable housing. The case study represents an exemplar affordable housing scheme. The case study involved the MyHome Scheme. The cost of MyHome in the cities is RM300, 000. Though there is a RM30,000 discount for first time buyers. The case study involved the descriptions of the operations of a developer that applied the MyHome scheme in her affordable housing supply. The scheme is controlled by the Ministry of Urban Wellbeing, Housing and Local Government. The primary purpose of the scheme is to stimulate private sector investment in the construction of low and medium cost houses. It is one the initiative introduced by the government to help Malaysian own their first home. Under this scheme, RM30,000 subsidy is offered for each unit to the developers. While the developers can select the location for the construction, government gives priority to developers that built the houses in the areas of high demand. The scheme has two plans. Plan 1 has built up area 800 square feet, with 3 bedrooms and 2 bathrooms, with the market price of RM80, 000- RM120, 000. Plan 2 has built up area of 850 square feet comprising with 3 bedrooms and 2 bathrooms, with the market price of RM90, 001- RM170, 000. For the plan1, for home buyers to qualify, the household monthly income should be between RM3, 000 RM4, 000 while for plan 2, the household monthly incomes are fixed at RM4, 001 to RM6, 000. The case study is centered on a leading property developer in affordable housing market that recently (around 3rd

quarter of 2015) launched its first phase of the affordable home production. The first phase comprises of 186 units of single storey terrace units with a built up area of 850 square feet with leasehold price ranges from RM180, 000 to RM200, 000 per units.

3. Theoretical framework

The need for housing in Malaysia is expected to increase remarkably due to rapid growth in population, interstate migration, changing economic status of citizens, changes in tastes, and dilapidation of existing housing stock. At 2020, the population of Malaysia is estimated to reach 32.4 million. While the need for poor and lowcost housing will continue, the emphasis of supply will be shifted to delivering vibrant housing that is commensurate with the country's status. The Malaysian housing market is very volatile. To illustrate this, Figure 1 graphs changes in the volume and value of property transactions over the last 24 years. Due to large variations in number of transactions, the data are presented in an index forms. The average change in volume is 114, while the average change is the value of the property is 292 for the recorded period, indicating that price gained strength despite government controls of price and speculation. In 1990, the volume of property transactions was 148.20 (equivalent to RM15.16 billion); however, in 2014 this has increased to 384.06 (equivalent to some RM163 billion). This represents an expansion of 88% [This is calculated based on the midpoint formula] in volume and 166% [This is calculated based on the midpoint formula] in monetary terms. The sharp drop in housing market activity in 1998 is a result of the financial crisis that affected all Asian countries including Malaysia. While there was a recovery towards 1999, it falls two years in 2003. The drop in 2009 also coincides with the 2008-2009 global economic meltdowns whose major reason was the collapse of the housing market in the USA from 2007 through 2009. The global economic meltdowns led to a decrease in GDP, and an increase in unemployment, which consequently disrupted international trade and financial markets. It also hampered lending by banks.



Table 1: Volume and Value of Residential transaction by year 2001-2014

Figure 1: Annual Change in Volume and Value of Property Transaction 1990 - 2014 [4]

Property is transacted in five broad sectors, namely; residential, agricultural, development, industrial, and commercial. In terms of volume, the residential segment accounts for about 80%, and in terms of value of transactions, it averages 50%. The total value of residential property transacted has grown significantly since 2009; and for 2014, exceeded the pre-crash level peak of 2005. While this trend is most likely to continue, perhaps the soar is due to government policies on home finances and increase in ownership. However, it is apparent from the house index that residential property prices have risen significantly in recent years (Figure 2).



Figure 2: The Malaysian House Price Index. [5]

Statistics show that Malaysia has 4,831,791 residential units representing an increase of 2.2% from 4,725,109 in 2013. That is, the production of units is approximately 107,000 per annum. With a population of 31 million, there are approximately six persons per home. This also means that there is a supply of four units per 1000 population annually. This statistic indicates that there is home shortage about 12 million units. The government has launched various schemes to increase home-ownership among Malaysians (e.g. MyHome / Skim Rumah Pertamaku (SRP), Perumahan Rakyat 1Malaysia (PR1MA), Rumah Mesra Rakyat (RMR1M), Program Rumah Mampu Milik (RMM), Program Penyelenggaraan 1Malaysia (TP1M), Housing Loan Scheme, People's Housing Program, and Rumah Transit/ transit house programme. There are prequalification criteria for each of the schemes for the homeowners. However, home-ownership was 63% in 2000; this dropped to 55% in 2010 [6]. To interpret, there is an annual decline of about 1% in home-ownership. Home-ownership will thus be less than 50% in 2020.

Benchmarked against international standards, housing in Malaysia is not affordable despite government measures [7]. For illustration, the cumulative monthly expenditure on rental for all Malaysians is close to 27% of household income [4]. However, for those in low and middle-income groups, it is 35% [8]. In fact, the 2014 inflation in housing, water, electricity, gas, and other fuels categories increased to 3.4% (2013: 1.7%), reflecting upward adjustment in electricity tariffs and a broad-based increase in rentals across different types of residential property [9]. Mean income in Malaysia is RM6, 141. However, median income (which is a more acceptable criterion to measure affordability) is RM4, 585 [12]. This makes Malaysians spend more of their income on housing than on any other goods and services. Those that earn the median incomes are the typical family in the society living in a national median-priced single-family home. This housing affordability index (or HAI) provides a method to discover whether housing is more or less affordable for 'standard family'. The index takes into account the determinants of housing affordability to those earn the median incomes. These include housing prices, location, mortgage rate, family size, interest rates, and household income. The affordable housing price elasticity of demand is relatively elastic (-1 < Ed < 1), because the percentage change in quantity of housing demanded is greater than that of the housing price. Hence, when the price of affordable housing is raised, the total revenue decreases, and vice versa. The increasing in wages and salaries of those in low and medium has done little to cushion their housing cost burden. Primarily because, as income increase costs of other goods and, services like, utilities, transportation, cost of education and medical bill also increases in tandem. The ratio of household debt to GDP is 87.9% (RM940.6 billion), but residential housing loans constituted only 46% (RM430 billion) of total household debt. A descriptive treatment of the housing shortage in Malaysia is found in [10]

A housing market is a collection of people and firms who trade in housing. Most housing markets have many buyers and sellers, and are competitive. As in other competitive markets, prices for houses are mainly determined by supply and demand. The market has a fundamental role in the allocation of housing; it provides a strong incentive for the supply side. When the market incentive is strong, a developer will supply more houses; because to the developer, what the market reward is valuable they can make more profits. In general, two types of market forms are available for housing markets: a competitive housing market, and a regulated housing market. The market is regulated when the government does not allow house allocation based on the market forces. Governments both in developed and developing countries set a rent ceiling to protect those in the low and medium income groups.

For instance, in Malaysia, to cushions the housing shortage, the government responds with initiatives such as the establishment of the National Housing Council (NHC) in 2014 and schemes. The purpose of the council was to develop strategies and action plans, and to coordinate legal aspects and property price mechanisms in ensuring

the provision of affordable and quality housing. A fundamental feature of government efforts with the council and the schemes is the provision of incentives to developers and/or homebuyers. If the housing market is not regulated, the supply side will continue to benefit before the marginal cost increases. In many cases, however, what the market rewards is not valuable to the society. Factors of production can also be allocated on the basis of lottery, price description, and majority rule. In all situations, there is a trade-off. Sometimes, when market failure occurs, it means either too much or too little of a good or a service was supplied by the market. In the housing markets, developers influence supply, which introduces elements of monopoly on the supply side. Perhaps using means of allocation other than the market would provide weak incentives to developers. A regulated housing market could, however, be good. Housing control has been a major type of government regulation all over the world for a long time.

Economists (specifically, private developers), however, believe that a regulated housing delivery leads to housing shortage and with its attendance consequences. Figure 3 through an exemplar case study maps what happen to the housing market if price is not traded on the competitive market. The figure is based on the MyHome scheme with housing market price of RM200, 000. In the affordable housing market, a developer is willing to supply 60 units at the price of RM300, 000 for a unit comprising 3 bedroom and 2 bathrooms; that is at the equilibrium price and quantity, "E". However, supposing the government decides to impose a ceiling price of RM250, 000 at point "k", the contractors will be unable to meet the current supply of 60 units. Rather, they will only supply 48 units at the ceiling price. As there is a ceiling price of RM250, 000, the resultant will be points "j" and "g". (This is currently the case. The government is imposing a ceiling on housing units to allow those in low and medium-income groups to have access to homes. Initiatives like PR1MA are based on the same principle. Thus, a shortage will arise; and as shortage arises, homeowners vying for the 48th unit will pay at least RM360, 000, because it will then be traded on the black market and cost of search activity.



Figure 3: Effect of regulation on housing price and quantity supply

Presented above is a graphical illustration of the affordable housing market operation. Perhaps, in the mainstream economics, there is no argument to this illustration. This will always be the case in a market economy. This scheme is not efficient based on the economic principle of rational thinking. But as argued earlier, housing and affordable housing operations, in particular require government interventions to be 'efficient'. Efficiency in this context may be construed in terms of social benefit. In this study, it is not argued that some of inefficiencies do not exist if government perform multiple roles of providing housing directly and providing the enabling environment for the private sector to provide houses based on demand and supply forces, but what is argued,

is that, in actual fact, none of the methods of allocating resources is efficient in allocating resources at all time. Here, it is the effective combination of any of the methods after careful analysis of the stakeholder requirements that is should be preferred. Many researchers or specifically, economists agreed that, it is not the functions of the government to provide housing, because it would lead to long term-liabilities and since the government will not be able to provide adequate homes to those that do not have the finance requisite to own or rent their homes [11]. Furthermore, to the extent that there is no cogent relations between housing affordability and property value, [12] the argument that rent control will lead to housing shortage weak. The adequacy and affordable of housing is a global priority. There is a strong relationship between quality of houses in the country and the economic development. The relationship between adequate housing also means that such country would spend less on the preventions and controls of diseases, has reduced in crime rate and enhancement in social integration. A poorly maintains housing is unsightly, irritating, and dangerous to use. Other benefits include lower energy use and improvement of sustainability criteria. In fact, for most or all around the world housing is a measure of quality of life. For the pensioners or retirees, housing is to them a security issue.

4. Concluding remarks

The structure of the Malaysian housing market is complex. If housing priced or rent is set above the equilibrium rent, it will not have any effect, since it will not be constrained by market forces. In this case, the force of law and the force of the market will be in conflict. The force of law will restrict the determination of rent by forces of demand and supply. As demonstrated above, if the government sets the rent ceiling below the equilibrium price, it will lead to shortages and increase in rent. In a competitive market, developers are able to maximise profits by influencing the housing supply and price. They advise the government in providing incentives and/or increasing subsidies to house buyers or to developers. They also advise the government to reduce taxes on construction materials and to relax regulations on migrant labour. They encourage banks to lower interest rates on mortgages. A developer association, as an organised group of housing developers, influences housing prices and rents. Like other private organisations, they are profit-driven; they aim to influence the supply, price, rents, and other conditions of housing delivery. Affordable housing delivery is also considered as a mean of alleviating poverty. Furthermore, investment in affordable housing is a necessity for economic growth and can be used to address both environmental and social problems.

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References

- A. O'Sullivan, S., Sheffrin, and S. Perez, Microeconomics: Principles, Applications, and Tools. 8th Ed. Prentice Hall. San Francisco, 2013
- [2] M. Parkin, Economics, 10th Ed. Pearson Education Limited, Harlow 2013.
- [3] M. R. Church, The Effective Use of Secondary Data. Learning and Motivation, 2001, 33, pp32–45.
- [4] National Property Information Centre (NAPIC, 2014) Annual Property Repot.
- [5] The Malaysian House Price Index.
- [6] Department of Statistics (2014a) Report on Characteristics of Household 2010: Population and housing census of Malaysia
- [7] X. L. Ying, A. Olanrewaju, and S.Y. Tan, Strategies For Affordable Housing Delivery, Australian Journal of Basic and Applied Sciences, AENSI Publisher, 2015, pp. 118-124.
- [8] Department of Statistics (2011) Malaysia report on household expenditure survey. Available at:http://www.statistics.gov.my/portal/download_household/files/Expenditure/Laporan_PIR_Report_on_HES_2009-10.pdf [accessed 14/03/2014].
- [9] Department of Statistics (2014) Report on Characteristics of Household 2010: Population and housing census of Malaysia
- [10] A. Olanrewaju, S.Y. Tan, L.L. Tat, Rethinking Sustainable Housing Maintenance Delivery", Applied Mechanics and Materials, Trans Tech Publications, 2015, pp. 682-687.
- [11] B. V. Warnock, and E. F. Warnock, Markets and housing finance, Journal of Housing Economics, 2008, 1 pp. 239–251.
- [12] M. T. Nguyen, Does Affordable Housing Detrimentally Affect Property Values? A Review of the Literature. Journal of Planning Literature, Vol. 20, No. 1,pp.15-26.