Science Arena Publications
International journal of Business Management
Available online at www.sciarena.com
2017, Vol, 2 (4): 1-17

Prospect of developing reverse mortgage market in Malaysia: A SWOT analysis

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Abstract: *Malaysia is expected to become an ageing nation by the year 2020, when 10% of its population will fall within the age group 60 years and above. One of the challenges heralded by this development is income insecurity among the elderly population, who by virtue of their age are forced on retirement thereby making them to rely heavily on pension, social security or filial transfers, which in most cases are not sufficient to cater for their needs. Despite the fact that the elderly are "cash-poor", however, they are in most cases considered to be "asset-rich" by virtue of the possession of substantial wealth in form of housing equity that is trapped in their residential homes, which if released, can provide considerable income that can augment their existing source of income. Reverse mortgage offers the avenue where elderly people can access the trapped wealth in their residential home by releasing the housing equity therein in order to improve their welfare. This paper explores the prospects of developing reverse mortgage product market in Malaysia by presenting a SWOT analysis based on the synthesis of extant literature on the factors driving the demand and/or willingness of individuals to use the product as a source of supplementary income and consumption smoothing option in old-age. The analysis is expected to spur discussion on the subject as the country targets to become a high income economy by the year 2020 amidst increasing challenge of old-age poverty facing the elderly population.*

Keywords: *elderly, income security, Malaysia, real estate, reverse mortgage*

INTRODUCTION

The rapid pace of population ageing being witnessed in many countries around the world has become topical issue among both academia and policy makers. This is not unconnected with the effect the phenomenon is anticipated to impose on social, economic and political institutions of humanity. Discussions and policy frameworks in respect of population ageing have become frontline issues among national governments, regional organisations, NGOs and world organisations. Ageing trend which started in developed countries has long surfaced in developing countries as well. Many developing countries, Malaysia inclusive, have started experiencing the ageing phenomenon (United Nations Department of Economic and Social Affairs Population Division, 2013).

One of the challenges facing the elderly people globally is lack of sufficient finances to fund increased medical needs and other associated costs (Ehnes, 2012, 148; Kumar, Divakaruni, & Sri Venkata, 2008). This problem is further complicated given the fact that the sustainability of the social security systems that are meant to support the elderly after their active working age is being doubted (Cocco & Lopes, 2015; Zin et al., 2002). The continuing increase in the number of the elderly people in many countries, declining individual saving rate, growing concerns over the adequacy of households' retirement savings coupled with the recession facing the global economy pose a big challenge to the sustainability of the existing social security systems. For instance, a report released in 2011 by OASDI Trustees in United States indicated that by the year 2036, the Social Security trust fund in the country is expected to be exhausted (Cocco & Lopes, 2015). Similarly, a study of the prospect for old-age income security in Hong Kong and Singapore, found that 75% of elderly persons have income below 40% of the median wage in Hong Kong while in Singapore 96% of those aged 75 and above earned gross income that is below the population's median wage (Zin et al., 2002). The Malaysian elderly population is not an exception to these challenges too. Disturbing facts on their vulnerability to old-age poverty has been highlighted elsewhere (Employee Provident Fund, 2015; The World Bank, 2014).

However, while the elderly are considered "*cash-poor*", on the other hand, they are considered to be "*asset-rich*" by virtue of the enormous housing wealth they own which if liquidated can provide source of income that can augment their existing income sources (Cho, Hanewald, & Sherris, 2013; Ong, 2008; Rasmussen et al., 1997,; Shan, 2011). Reverse mortgage is one of such financial products specifically design to enable the elderly achieve this goal and it is the focus of this paper to explore the strengths, weaknesses, opportunities and treats to the development of reverse mortgage product market in Malaysia with a view to highlighting the prospects of introducing the product in the Malaysian financial landscape.

2.0 OVERVIEW ON REVERSE MORTGAGE PRODUCT MARKETS

The inability of many governments to provide sustainable old-age income and social welfare scheme as a result of budgetary constraints caused by global economic recession is expected to fuel a massive demand for financial products tailored to the elderly citizens (Rajagopalan, 2007). Such products are expected to allow consumption smoothing to enable the elderly to manage longevity risk through liquidation of illiquid assets. The continuous increase in the cost of providing old age-related payments and services amidst persistent global economic crisis is linked to the growing popularity of real estate asset as a potential source of income capable of supplementing the dwindling pension fund and various social security funds in many countries (Haffner et al., 2015). Being the most significant asset among majority of households, the primary home is regarded as a store of wealth that can be used to augment the income needs of elderly people after their retirement. This led to the emergence of number of financial products that make it possible for homeowners to access the illiquid wealth trapped in their residential real estates. These products are generally referred to as home equity release or home equity withdrawal (HEW) products. The most common of these is the "reverse mortgage (RM)".

Reverse mortgage is a financial product specially targeted at people aged 62 years and above. It guarantees elderly house owners to consume their accumulated housing equity without requirement for monthly payments to the lender while at the same time staying in their houses (American Association of Retired Persons, 2010; Mayer & Simons, 1994a, 1994b; Moulton et al., 2015). The product is designed to provide elderly people who are *asset-rich* but *cash-poor* and who require additional fund to finance their medical needs, children education, house improvement, leisure, bills payments and other necessities that may arise during the remaining years after their active working life (Skinner, 1996; Stucki, 2006). Unlike the conventional forward mortgage where the borrower must surrender collateral to which recourse can be made upon default, a reverse mortgage loan does not require any form of collateral to be surrendered by the borrower. Repayment of the loan principal and the accumulated interest is made from the proceeds realisable from selling the house after the death of the borrower or when he/she decides to move out from the house permanently to care facility (Gotman, 2011; Mayer & Simons, 1994b; Ong, 2008; Stucki, 2006). The loan can be accessed through receipt of regular monthly payments, lump sum payment, or line of credit, or a combination of these. Although a variety of financial products that allows for liquidation of housing wealth exist, reverse mortgage remains the most popular so far. The various uses of reverse mortgage established in the literature are presented in Table 1.

Table 1: Uses of reverse mortgages

Uses	**Sources**	
Source of fund for long-term	Stucki, 2004, 2006; Jacobs 1987; Redfoot 1993; Morgan, Megbolugbe &	

care	Rasmussen, 1996; Mitchell, Piggot, Sherris & Yow, 2006; Bridgewater, 2013
Poverty alleviation/source of additional income	Venti & Wise, 1990; Speare 1992; Mayer & Simons 1994; Katsura, Struyk & Newman 1989; Taskforve Verzilveren, 2013; Ong ,2006; Alonso, Lamuedra & Tuesta, 2013; Sun, Triest & Webb, 2007; Kutty, 1998; Morgan, et al.1996; Moscarola, Rossi & Sansone, 2013; Davey, 2010
Support for children/family	Rasmussen 1995, Rasmussen et al., 1996, Coon, 2010
Portfolio Diversification	Vincent, 2014 , De Roon, Eichholtz, and Koedijk, 2010; Sun, Triest & Webb, 2007, Lydon & O'hanion, 2012
Means of access to credit	Reifner et al., 2009; Lydon & O'hanion, 2012
Home modification, Repairs & improvement	Rasmussen et al., 1996, Jacobs, 1986, Boyle, 2010, Coon, 2010, Davey, 2010, Lydon & O'hanion, 2012, O'hanion, 2015
Leisure (travel, holidays etc)	Coon, 2010; Davey, 2010; Lydon & O'hanion, 2012
Others (purchase of appliances, car, pay off existing mortgages, etc)	Overton & O'hanion, 2015; Davey, 2010; Boyle, 2010; Morgan, et al. 1996,

Source: Authors' compilation

2.1 United States Home Equity Conversion Market (HECM)

The 1970s witnessed the growing attention of research into the possibility of introducing RM to American elderly citizens. In 1984, Prudential-Bache in collaboration with American Homestead introduced the first tenure-based reverse mortgage product which allowed the borrower to continue enjoying the loan until he stopped occupying the home (Chan, 2002; Consumer Protection Financial Bureau (CFPB), 2012). Prior to this, Senator John Heinz, in 1983, had issued a proposal to the Congress for establishment of FHA reverse mortgage insurance which resulted in passing of a pilot program for HECM in 1987 (Consumer Protection Financial Bureau (CFPB), 2012). In 1989, the Department of Housing and Urban Development (HUD) approved fifty lenders for the lunch of HECM demonstration programme which later become permanent in 1998 (Gotman, 2011; Munnell & Sass, 2014). The HECM programme received a major support through its endorsement by the National Council on Aging (NCOA) as means of financing long-term care for elderly homeowners wishing to age in place. The American Association of Retired Person (AARP), on the other hand, instituted a mechanism that will protect consumers against the vulnerabilities associated with HECM as a result of its complexity (Gotman, 2011). Among the various reverse mortgage products available in US, the HECM is the most popular representing about 95% of the whole market (Moulton et al., 2015). In the fiscal year October, 2015 a total of 58,043 loans were originated (Figure 1) (National Reverse Mortgage Lenders Association, 2016).

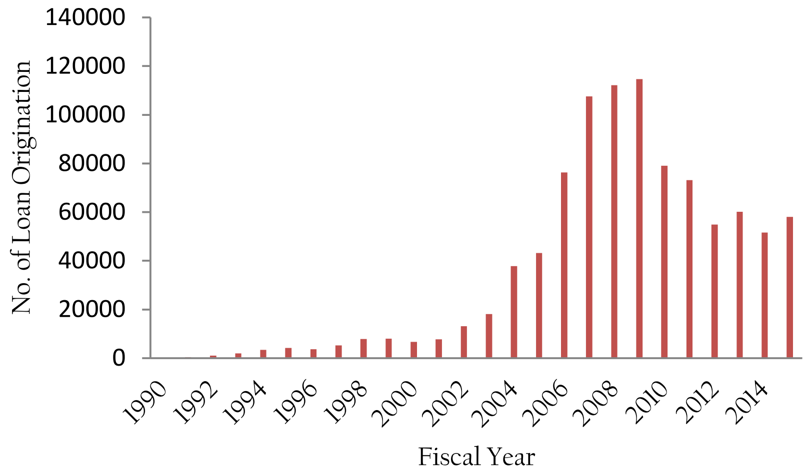

Figure 1: HECM loan origination 1990-2015

Source: (National Reverse Mortgage Lenders Association, 2016)

There are three types of reverse mortgages currently available in US (Federal Trade Commission, 2016):

- Single-purpose reverse mortgages which are offered by some states and local government agencies and non-governmental organizations;
- Home Equity Conversion Mortgages (HECMs) which is a federally-insured reverse mortgages administered by US Department of Housing and Urban Development;
- Proprietary reverse mortgages which are issued and backed by private companies.

The single-purpose reverse mortgages are limited to certain states and local government areas and have no nationwide coverage. Restriction is imposed on usage as a borrower can only use the loan for the purpose for which it was initially secured. The cost involved is relatively low compared to the HECM and proprietary options and they are most appealing to homeowners with low or moderate income.

Conversely, HECMs reverse mortgages have no restriction on use. Borrower has the sole discretion to utilize the loan for whatever purpose he deems fit without any restriction from the lender. A price for such flexibility translates to the high cost of these options and the requirement that a potential borrower must seek counselling from an independent government-approved agency. The purpose of the counselling is to advice the potential borrower on the cost implication of the HECM in comparison with other reverse mortgage options in terms of fees and other associated costs and their effect on the total cost of the loan over time.

The amount of loan a borrower can borrow with a HECM or proprietary mortgage is a function of borrower's age, type of reverse mortgage, value of property, and prevailing interest rate. Thus depending on prevailing interest rate and high house price, older borrowers with high housing equity will borrow more from HECM all things being equal (American Association of Retired Persons, 2010; Federal Trade Commission, 2016). The eligibility criteria for HECM are:

- The borrower or any other owners of the house, (in case of joint ownership), must be 62 years or over, live in the house as a principal residence, and not be delinquent on any federal debt.
- The house must be a single-family residence in 1-to-4-unit dwelling, or part of a planned unit development or HUD approved condominium or some manufactured homes.

- The borrower must meet HUD's minimum property standards (but the loan can be used to pay for repairs that may be required).
- A borrower must discuss with a counsellor from HUD-approved counselling agency.

2.2 United Kingdom equity release market

The UK equity release market is considered the largest among all the European Union countries (Reifner, Clerc-Renaud, Perez-Carrillo, Tiffe, & Knobloch, 2009). Until recently, the UK market suffered from reputational damage as a result of the 1980s incidence where many people lost their homes from unsafe 'Home Income Plans'. From the record high of £ 1.21bn in 2007, the value of equity release loans reached an all-time high of £ 1.38bn in 2014 representing a 29% rise from the £1.07bn recorded in 2013. Similarly, the total number of customers grew by 13% between 2013 and 2014 with the origination of 21,000 new loans (Equity Release Council, 2014).

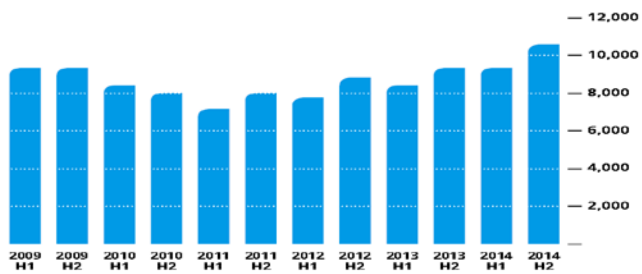

Figure 2: Equity release consumers 2010-2014

Source: (Equity Release Council, 2014)

In the UK, two reverse mortgage product known as lifetime mortgage and home reversion are provided for elderly people aged 62 and over. Unlike the case of US where government provided reverse mortgage product, in the UK the product is provided by private companies such as banks, insurance companies, building societies and credit unions (Sau Po Centre on Ageing, 2010). As found in US, the prospective borrower most owned the house individually or jointly for him /her to qualify for the mortgage. A version of UK reverse mortgage, the Home Reversion Plan, allows the borrower to sell up to 100% of the property to third party at below market price and continue to live in the property on rent-free basis until death (Sau Po Centre on Ageing, 2010). A striking difference between the US reverse mortgage model and that of the UK is that the amount received by borrower in UK is taxable while in the US the income is non-taxable. Similarly, the UK model sets bequest limit on the house value while no such limit is imposed in the US model (Sau Po Centre on Ageing, 2010).

2.3 Australian reverse mortgage market

Reverse mortgage is the most popular equity release product available for elderly Australians to enable them turn their accumulated housing equity into liquid cash (Senior Australian Equity Release, 2013). The offer of first reverse mortgage by Advance Bank in the early 1990s marked the beginning of reverse mortgage development in Australia. In 1993, government introduced a subsidised pilot home equity conversion scheme which later ceased to exist after three years of its introduction due to low take off (Brownfield, 2014; Haffner et al., 2015). Since the rebounds of the market in 2001, the Australian reverse mortgage market has recorded steady growth. Loan origination grew from 27,898 in 2006 to 41, 435 in 2013 which is equivalent to about 49% increase in the number of loan origination as shown in Figure 3 (Hickey, 2014).

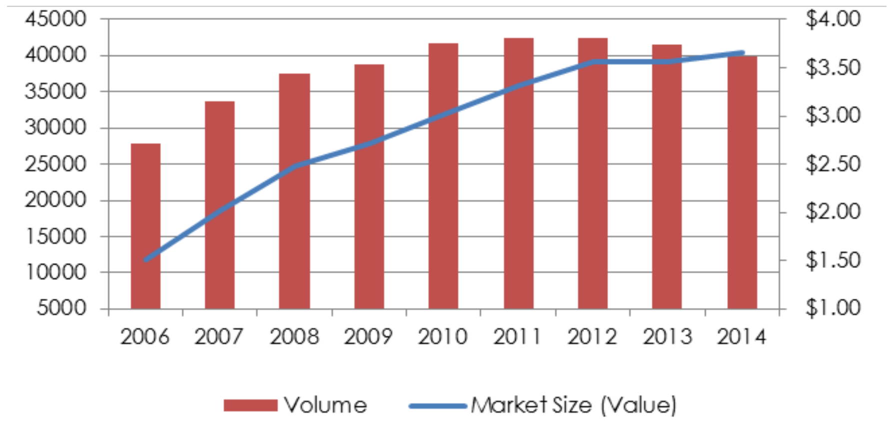

Figure 3: Volume and value of reverse mortgage loans in Australia (Dec. 2006-Dec. 2014)

Source: (Hickey, 2014)

3.0 REVERSE MORTGAGE MARKET DRIVERS

The development and growth of reverse mortgage product market is a function of many inter-related factors. Similar to other financial products markets, the market for reverse mortgages is influenced by both supply-side and demand-side forces. An important factor that influences the development of reverse mortgage and other equity release products is government policy. Through enactment of relevant laws and regulations government provides an enabling environment for the development and growth of reverse mortgage product market. Several laws and statutes that deal with, taxation issues, financial regulations, insurance, and consumer protection with respect to reverse mortgage transactions have played significant role in the development of reverse mortgage markets across countries. For instance, the Senate's approval of the Home Equity Conversion Mortgage (HECM) Demonstration Act 1987 and the subsequent signing of the Act into law in 1988 by the then US President Reagan was the cornerstone for the institutionalisation of reverse mortgage product market in the country. In the United Kingdom, the promulgation of laws, such as the Financial Service and Markets Act 2000 and Regulation of Financial Services (Land Transactions) Act 2005 provides more protection to the equity release consumers and also encourage patronage of equity release products (Reifner et al., 2009). Similarly, policy statements that encourage self-funded retirement in old-age has also been attributed to the growth in the number of elderly people subscribing to equity release products as alternative means of financing healthcare and other needs (Fox O'Mahony & Devenney, 2008). Similarly, other private institutions and other non-governmental organisations play significant roles in the development of reverse mortgage product market and other equity release products in general. For instance, in the US, the AARP plays a leading role in providing counselling and other customers awareness programmes to reverse mortgage borrowers. In the UK, the SHIPS plays vital role in regulating the activities of players in the equity release market while the Senior Australians Equity Release Association (SEQUAL) provides protection to borrowers as well as regulating the activities of reverse mortgage providers in Australia. These institutional frameworks help in shaping people's perception about reverse mortgage products and also promote healthy participation of financial institutions in the markets.

Reverse mortgage, like any other financial product, is influenced by the general economic situation of the country. The level of economic activities in a country greatly affects the overall financial market. Reverse mortgage market is not an exception to this reality either. For instance, the size of reverse mortgage market is found to be related to the mortgage and pension systems of a country (Doling, 2010). Reverse mortgage activity tend to be higher in countries with more developed mortgage markets as against those with under developed mortgage markets. A possible explanation to this could be that households are more acquainted to financial products related to housing in "matured" mortgage markets unlike the situation of households in less developed mortgage market who may not be so acquainted to such products. Similarly, it was also discovered that reverse mortgage activity is higher where households' desire to augment their existing pension is higher (Doling, 2010). Thus countries with weak or strained social security systems may likely show high demand for reverse mortgage product.

Studies have also shown that increase housing wealth, increased life expectancy, poor retirement planning and savings and decreasing state of employer support play significant role in determining the level of demand for reverse mortgage products (Luiz & Stobie, 2010). Moreover, reverse mortgage is shown to be of greater usefulness in countries where residential property value and land price are high, where home ownership forms the greatest investment portfolio and in countries where public policy supports home ownerships (Chia & Tsui, 2005). Similarly, high levels of homeownership, developed mortgage market, and increase in house prices have facilitated the development of reverse mortgage markets in the European Union member countries. Particularly, the rise in house prices in many countries of the European Union have attracted many innovative lenders to take the risk of granting reverse mortgage loans to a steadily growing number of customers who witnessed increase in their asset wealth without corresponding improvement in their income position (Reifner et al., 2009).

Spatial difference in property value was also suggested to have relationship with reverse mortgage demand. It was found that young people living in relatively low-property-value areas are more likely to approve of their parents' application for reverse mortgage than their counterparts living in high-property-value areas. This is explained by the fact that the young people from high-property value areas considered their parents as being better-up by having sufficient monthly income and a considerable high valued property therefore they do not need to apply for reverse mortgage. Conversely, those from low property value areas considered it hard on them to support their low income parents therefore supportive of their parents' application for reverse mortgage (Yoo & Koo, 2008).

A number of studies on reverse mortgage market highlighted the roles of some socio-cultural factors in determining people's interest and/or decision to use reverse mortgage products. Factors such as bequest motive, educational background, home attachment, ethnicity and/or race, intergenerational transfer and expectation from family members have been found to influence individual's interest to applying for reverse mortgage loan. For instance, young people's high expectation for inheritance was shown to negatively affect their willingness to approve of their parents' application for reverse mortgage (Yoo & Koo, 2008). In discussing the small size nature of the reverse mortgage product market in some European countries, cultural suspicion arising from the perception that reverse mortgage promotes personal consumption against intergenerational transfers was identified as one of the barriers preventing its wider acceptance among the elderly in the region (Doling, 2010). These studies show that bequest motive driven by strong filial ties and desire to conform to social and cultural norms may hinder acceptance of reverse mortgage among potential consumers.

Similarly, living arrangement, desire to leave ones property to descendants and intergenerational transfers received from children and grandchildren were identified as barriers to elderly people's interest in reverse mortgage in Hong Kong (Zhou, 2014.). In the US, a study that explored the relationship between family and community ties and demand for reverse mortgage revealed a fairly strong relationship between the two. It was discovered that higher incidence of out-migration tends to increase demand for reverse mortgage while old-out-migration tends to reduce demand for reverse mortgage (Knapp, 2001). Furthermore, homeowners who are less attached to their home and have no fear of liquidating it are more likely to be interested in reverse mortgage (Fornero, Rossi, & Brancati, 2011).

Ethnic and/or racial differences and level of educational attainment was also found to be important factor that affect peoples' interest in reverse mortgage. Evidence in the US indicated that communities with higher percentage of Whites and individuals with higher educational attainment are found to be more interested in reverse mortgage (Knapp, 2001). This highlighted the role of education on individual's financial decision making.

Decision to consider applying for reverse mortgage was found to be influenced by the level of individual's financial awareness and involvement, which describes the general financial behaviour of individuals. For instance, a research in China that explored the feasibility of using reverse mortgage among the elderly revealed a strong positive relationship between possession of stock, mutual fund or bond and willingness to apply for reverse mortgage (Chou, Chow, & Chi, 2006). A recent study in the US revealed that lack of product knowledge significantly affects the demand for reverse mortgage (Davidoff, Gerhard, & Post, 2014). The authors pointed that demand for reverse mortgage product can reasonably be increased by reducing the inherent complexity in the product design.

The above discussions highlighted the various factors affecting the actual demand for or individuals interest to use reverse mortgage as a form of consumption smoothing strategy in old-age. In summary, these factors can broadly be classified into the following:

- Political/Institutional factors (public policy; regulatory framework, etc.)
- Economic factors (property market maturity; general financial & capital market maturity; homeownership, etc.)
- Socio-cultural/demographic factors (ageing, educational attainment; bequest/inheritance practices; ethnicity/race, etc.)
- Behavioural factors (risk attitude, financial behaviour; place attachment, etc.).

Having reviewed the previous literature on reverse mortgage in some selected prominent markets around the globe, the next section is focused on analysing the Malaysian environment in the context of these reverse mortgage market drivers identified in the foregoing section.

4.0 ANALYSIS OF THE MALAYSIAN ENVIRONMENT

4.1 Demographic trend in Malaysia

The population of the elderly persons aged 60 years and above in the world will rise from 841 million in 2013 to more than 2 billion in 2050 (United Nations Department of Economic and Social Affairs Population Division, 2013). Malaysia is not an exception to this dynamism that characterized the global population. The country is witnessing demographic transitions that bound to shape policies, activities and actions of the decision units in political, economic and social environments of the country. Since its independence, the country has witnessed changes in its population size, composition, and age distribution. The first national census conducted in 1970 reported the total population of the country as 10.44 million people. The subsequent census in 1980 indicated Malaysian population stood at 13.7 million people, indicating an average annual growth rate of 2.3% during the period 1970-1980 (Ismail et al, 2014). By the year 1991, the country's population rose to 18.5 million with an annual growth rate of 2.64%. In the year 2000, the population reached 23.3 million people with a slight drop in annual growth rate to 2.6% compared with the 1991 figure. A further decline in the annual growth rate is witnessed in 2010 census where an average annual growth rate of 2.0% was recorded with a total population of the country enumerated at 28.3 million (Department of Statistics Malaysia, 2012a). The projected population by year 2020 when the next population census will be held is estimated at 32.4 million while the projected average annual growth rate is 1.2% (Department of Statistics Malaysia, 2012b, 2015). The picture portrayed by this demographic reality is that the fertility rate is gradually declining in the country. Figure 4 shows the respective annual growth rates of the total population and the respective age groups from 1980-2010.

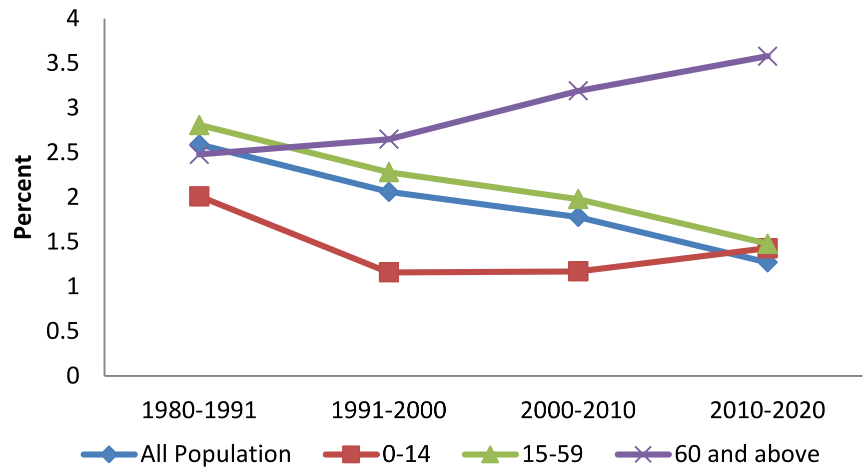

Figure 4: Population average annual growth rate, Malaysia (1980-2020)

Sources: (Department of Statistics Malaysia, 2012b, 2015)

Despite the fact that the present Malaysian population is predominantly young, the persistent demographic transition being witnessed will soon change its status to an aging society. A closer look at the age structure of the population is suggestive of declining birth rate and increase longevity which are the key factors that lead to population ageing. From Table 2, the percentage of people in the age bracket 0-14 continues to decline gradually over the period 1980-2010. In 2010, those aged 0-14 formed 31.4% of the total population of the country as against about 40% in 1980. Over the period 1980-2010, there has been gradual increase in the proportion of the age group 15-59 from 54.6% in 1980 to about 64% and 65% in the year 2010 and 2020 respectively. In respect of the elderly population (60 years and above), however, the trend shows a continuous increase in the proportion of this cohort. The proportion of the elderly population is projected to rise to 10.6% of the total population by the year 2020. The population of the elderly Malaysians aged 60 years and above will increase by 269% between 2008 and 2040, ranking Malaysia the fourth fastest aging nation after Singapore, Colombia and India respectively (Kinsella & Won, 2009). This reality enlists Malaysia among the aging countries of the world as contained in the United Nation's Report.

Table 2: Demographic Profile of Malaysia (Millions)

Sources: (Department of Statistics Malaysia, 2012b, 2015)

	1980		1991		2000		2010		2020*	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Population	13.7	100	18.5	100	23.3	100	28.3	100	32.4	100
Age Structure										
0-14	5.41	39.9	6.82	37.1	7.72	33.3	8.74	31.4	7.77	24.0
15-59	7.56	54.6	10.51	57.7	13.62	60.5	16.98	64.8	21.23	65.4
60 and above	0.79	5.5	1.05	5.8	1.43	6.2	2.10	7.9	3.44	10.6

In addition, other indicators that attest to the aging of Malaysia's population are dependency ratio, median age and aging index. The old-age dependency ratio, which measures the proportion of the dependent old-aged group (60+) to active working age class (15-59), is expected to rise from 6.7 in 2000 to 13.4 and 23.8 in 2025 and 2050 respectively. This indicates that for every one active working aged person there will be approximately 13 and 24 dependent old-aged persons in 2025 and 2050 respectively as against approximately 7 old-aged persons obtainable in the year 2000. Similarly, the median age indicator also portrays the same scenario of gradual aging of Malaysia's population. The trend indicates a considerable shift in the median age of the population from 19.8 years in 1950 to 23.3 years in 2000. This is expected to shift to 31.2 and 37.8 years in 2025 and 2050 respectively, thus indicative of aging phenomenon. Furthermore, the aging index is an indicator that shows the proportion of the elderly population to the young population (the ratio of persons aged 60+ for each 100 persons aged 0-14 years). As shown in Table 3, the index has risen from 17.9 in 1950 to 19.3 in 2000 and projected to reach 56.7 and 104.9 in the years 2025 and 2050 respectively. The trend suggests an accelerated increase in the number of elderly persons. Thus by 2025 there will be approximately two under 15-year children for every person aged 60 years and over whereas by 2050 the number of persons aged 60 years and over is expected to exceed the number of children under 15 years, where there will be approximately five aged persons aged 60 years and over for every one child aged 14 years and under.

Table 3: Demographic indicators, Malaysia 1950-2050

Source: (United Nations Department of Economic and Social Affairs Population Division, 2013)

Indicator		1950	1975	2000	2025	2050
Dependency ratio	Total	85.0	84.6	61.9	48.4	54.4
	Youths	75.7	77.7	55.2	35.0	30.6
	Old age	9.4	6.9	6.7	13.4	23.8
Median age (years)		19.8	18.6	23.3	31.2	37.8
Ageing Index		17.9	13.3	19.3	56.7	104.9

Whereas Malaysia is waiting to join in the league of aging nations, it becomes pertinent for policy makers in all sectors to prepare on how to address the myriad of opportunities and challenges that accompany such transitions. By the time aging sets in properly, demand for aged-related products and services is expected to increase. For instance, developed economies that underwent the same transitions witnessed the emergence and increasing demand for elderly-related products and services such as reverse mortgages, care homes, specialized healthcare and so on.

4.2 Financial status of the elderly in Malaysia

The elderly are identified as one of the most vulnerable groups faced by financial insecurity characterized by inadequate savings upon retirement (Cho et al., 2013). The Malaysian elderly people are facing challenges in terms of financial sustainability, adequacy of retirement income and health care financing as a result of increasing life expectancy, changing family structure and rapid economic development being witnessed in the country (United Nations Department of Economic and Social Affairs Population Division, 2013). Although the goal of retirement annuities is to ensure financial security to retirees by ensuring that they have relatively sufficient income to take care of their needs during post retirement life, in Malaysia, this sole goal seems to become unrealistic as indicated by the statistics from the country's popular pension scheme, the Employee Provident Fund (EPF). Being the most popular outlet for retirement savings in Malaysia, a critical review of the status of the EPF reveals a daunting situation to the future of many elderly Malaysians especially in terms of their future financial security. With an average life expectancy of 75 years, an average Malaysian is expected to leave 15 more years (based on statutory 60 years retirement age) after retirement. As indicated by EPF annual report 2013, the average savings for active and inactive EPF contributors in Malaysia is approximately RM 167,000 and RM 26,000 respectively against the recommended minimum of RM 196,800. In essence, an active contributor would have an average monthly amount of RM 800 which is below the RM 830 poverty line benchmark upheld in the country. Moreover, 5.4 million, representing about 85% of the active EPF contributors have their savings in the range of RM100, 000 and below (Employee Provident Fund, 2015).

Similarly, 69% of the EPF contributors aged 54 and above have less than RM 50,000 in their account while 54% of this group have less than RM 20,000. Although retirees may decide to engage in part-time employment in order to supplement their income after retirement, data showed that about 69% of the retirees EPF members do not engage in any form of employment, thus solely relying on their savings and possibly familial transfers, which is also facing challenges (Abd Samad, Awang, & Mansor, 2013). All these point to one reality that the accumulated savings may not be enough to cover retirement expenses over the anticipated 15 years post-retirement life. This is evident where it was reported that retirees in Malaysia use up the average RM150, 000 of their EPF savings in the first three to five years of retirement (Life Insurance Association of Malaysia, 2014).

Furthermore, a look at the extent of coverage of the public pension in Malaysia will reveal a disturbing scenario. As at 2013, only less than 40% of the working age population is covered by the scheme while about 43% of the total labour force is not covered in the scheme (Employee Provident Fund, 2015). Moreover, with a low balance of RM50, 000 at retirement, the Malaysia's estimated replacement rate would be just within the range of 9-16% of income against the recommended public pension adequacy benchmark of 40% as contained in the International Labour Organisation Convention No 102 (The World Bank, 2014). In addition, while family traditionally serves as an important source for support to the elderly, recent evidences point to the gradual decline of this long lasting legacy (Alavi, 2013). Consequent upon modernisation and its influence on family structure and the changing economic realities brought about by globalisation, the amount of financial transfers from children to the elderly continue to decline. Another alternative means through which elderly people could cushion the effect of old-age poverty is by saving. Lamentably, however, Malaysians are not saving enough to enable them cushion the effect of income shocks in later life thereby becoming vulnerable to financial insecurity (Loke, 2013). The foregoing evidences pronounced the risk of financial insecurity among the elderly in Malaysia, hence the need to examine the potentials of reverse mortgage product as a source of supplemental income at retirement for the elderly Malaysians.

4.3 Elderly living arrangement, home ownership and bequest motive

Real estate constitutes the largest single asset for majority of household in Malaysia irrespective of financial status (The World Bank, 2014). House ownership is one of the important prerequisites for the take-off of reverse mortgage market. The Household Income and Basic Amenities Surveys conducted in 2009 and 2012 show high home ownership rate in Malaysia and across all states. The national home ownership rate in 2009 and 2012 are 71.4 and 74.5%, respectively which surpasses the 66.9% national rate of US as reported in (Wang, 2011). There is also high ownership rate among the poor households with about 73% of the poor households owning their house while the remaining 27% are on rental accommodation or government living quarters. These statistics show a promising future for reverse mortgage product as home ownership plays key role in the development of reverse mortgage market. With Malaysia climbing on the aging ladder, a substantial number of the population will enter the old age with a substantial amount of housing wealth which can be liquidated to address the numerous future financial needs that could arise. A report of a study involving 15 countries around the globe (including Malaysia) indicated that elderly people are more likely to sell their assets in event of financial hardship caused by unforeseen events (40% sell my main home; 33% sell my second home/other property and 51% move into a smaller home) (Twigg, 2013).

The literature on reverse mortgage identified the desire to age-in-place as a motivating factor that can influence elderly peoples' application of reverse mortgage product. As earlier mentioned, one of the conditions stipulated in reverse mortgage contract agreement demands the elderly mortgagee to stay on the mortgaged home until death in order to maintain his/her eligibility for the periodic fund disbursement. Therefore, for reverse mortgage product to be attractive to elderly Malaysians, there have to be evidence that the elderly prefer aging-in-place than permanently moving to elderly care-homes or other facilities. High preference toward moving to institutionalized health facilities such as care homes or high tendency to move closer to children or other family members will affect the demand for reverse mortgage negatively. On the other hand, high preference to aging-in-place could positively affect the demand for reverse mortgage product. Evidence from previous researches revealed a strong desire to age-in-place among elderly Malaysians (Aini, Wan Abd Aziz, & Hanif, 2015; Shamsuddin & Ujang, 2008; Yusof, 2005). A study that explores whether ageing-in-place is considered as the key option for the ageing population in Malaysia found that elderly Malaysians showed high preference to age-in-place given that they will be independent (Aini et al., 2015). These indicate that the elderly in Malaysia have strong attachment to their homes and communities which make it difficult for them to move out of their homes or communities. This could serve as a great potential for reverse mortgage market to thrive in Malaysia.

Although there are different schools of thought on the effect of bequest motive on the demand for reverse mortgage products it is worth being considered in discussing the potentials of reverse mortgage product in Malaysia. Family structure plays a significant role in the welfare of the elderly in Malaysia. This may not be unconnected with the general Asian values which recognizes both financial and non-financial care to the elderly as a form of filial and community responsibility. However, recent studies have shown that filial compassion is fast diminishing among Malaysians as a result of changes brought about by modernization and globalization (Beh & Folk, 2013; Caraher, 2000; Wen Xin, Sulaiman, & Baldry, 2013). In a study on Islamic real estate management in Malaysia, the authors lamented the increasing trend in the number of unclaimed inheritance properties and volume of frozen assets facing Muslims in the country. As at 2013, there was RM 60 billion worth of unclaimed assets against the RM 40 billion and RM 42 billion reported for 2009 and 2011 respectively (Shafie, Wan Yusoff, & Dawilah Al-Edrus, 2014). This problem was linked to the inability to trace the heirs of the deceased and the attitude toward bequest or Will adoption among Malaysians, especially the Muslims (Alma'amun, 2012; Azmi & Mohammad, 2011; Dahan, Mara, & Ahmad, 2012; Ghul, Yahya, & Abdullah, 2014). Considering this fact therefore, it suffices to say that reverse mortgage has the potential of serving as an alternative financial planning tool that can be used to strategically consume ones' housing equity while still alive. This will help in curbing the problem of rising unclaimed property among Malaysians and at the same time help the elderly optimize the housing wealth trapped in their homes thereby improving their welfare. Similarly, unlike what obtains some decades ago, nowadays many married couples in Malaysia are choosing not to have children or only few while the number of singles keeps increasing. These factors coupled with the problem of income inadequacy may likely provide a strong backing for the reverse mortgage market to thrive in Malaysia hence the motivation to examine the prospect of reverse mortgage in the country.

4.4 Political and institutional environment

Analysis of the reverse mortgage market in US revealed that government plays a significant role in promoting and sustaining the reverse mortgage market. The enactment of Laws and Statutes, introduction of HECM product, and the provision of insurance cover on the product by the US government through its agencies and departments have immensely contributed in the development and growth of reverse mortgage market. Similarly, NGOs and interest-based associations such as AARP have been important stakeholders in the operation of the reverse mortgage market in the US.

As found in the US and other countries, government can play a vital role when it comes to the development of reverse mortgage product in Malaysia. Through legislative enactment government can initiate the process of developing a reverse mortgage product for the elderly. An important move made by government so far towards providing an enabling environment for reverse mortgage take off was the presentation of a proposed new Aged Healthcare Act which is anticipated to provide new planning guidelines for aged healthcare facilities, development of new curriculum for caregivers, proposal for insurance coverage providers for home care and long term care and reverse mortgage products (Ministry of Health Malaysia, 2013). When successfully passed into law, the Act will pave way for reverse mortgage market to be introduced in Malaysia. In addition, the Financial Service Act 2013, Islamic Financial Service Act 2013 and the Central Bank of Malaysia Act 2009 are other relevant laws that will aid in regulating reverse mortgage market in Malaysia.

Moreover, from the institutional point of view there exist a quite number of potential providers of reverse mortgage in Malaysia. At present there are 27 commercial banks, 16 Islamic banks and 11 investment banks in Malaysia which offer different financial products to the public. Similarly, the National Mortgage Corporation of Malaysia (Cagamas) which serves as a secondary mortgage institution that provide liquidity in the mortgage market can as well perform the same function in the reverse mortgage market such as is the case for Fannie Mae in the US.

One of the important factors that determine the loan limit in reverse mortgage transaction is the interest rate. Availability of reliable information on the long-term interest rate is therefore necessary to allow lenders to make accurate projections of the interest rate over the expected tenure of the loan. This information is readily available in Malaysia and can conveniently be sourced from the periodic financial market report issued by Bank Negara Malaysia. The average monthly lending rate across the various financial institutions (commercial banks, Islamic financial institutions and development financial institutions) from September 2012 to March 2015 fluctuates between 4.44% and 4.80% for commercial banks and 5.75% to 7.07% for investment banks (Bank Negara Malaysia, 2015). Although in reverse mortgage loan arrangement lenders required additional premium above the interest rate applicable to conventional mortgage loan to cover for the additional risk associated with the loan, the interest rate trend in Malaysia shows a promising environment for reverse mortgage all things being equal. It is anticipated that the cost of the product will be relatively affordable to the potential borrowers as found in the conventional mortgage market where the growth in housing loan in the country is partially linked to the falling lending rates (International Monetary Fund, 2014). On the other hand, the risky nature of reverse mortgage product could be a potential disincentive to its full take up in Malaysia. As found elsewhere, banks and insurance companies were reported to be sceptical in participating in the reverse mortgage transaction as a result of its risky nature. The same scenario might be encounter in the case of Malaysia. The complexity of the product design and pricing could be a source of its unattractiveness among financial institutions.

The foregoing highlighted some of the factors that can influence the development of reverse mortgage market in Malaysia. These factors can be summarised and classified into the four groups akin to the widely used SWOT analysis concept as shown in Table 4.

Table 4: SWOT Analysis of reverse mortgage in Malaysia

Strengths	**Weaknesses**
▪ Government commitments towards achieving the vision of becoming high-income economy by the year 2020 ▪ Existing government policies that encourage inclusiveness and financial independence ▪ Presence of institutions that can support reverse mortgage operation	▪ Lack of enabling law ▪ Lack of awareness ▪ Inherent complexity of the product ▪ Financial & capital market dynamics (inflation, interest rate etc)
Opportunities	**Threats**
▪ Increasing number of the elderly people aged 60 years and above ▪ Changing family structure and lifestyle ▪ Low savings and replacement rate ▪ Place attachment	▪ Bequest/inheritance practice ▪ Acceptability ▪ Religious/cultural belief ▪ Attitude towards Financial institutions (Trust)

▪ High home ownership ▪ Steady property appreciation	▪ General financial behaviour ▪ Availability of other competing products/services (Elderly care home facilities, mortgage refinancing etc) ▪ Debt aversion

5.0 CONCLUSION

Increase in longevity and changing structure of family relationship among other factors have been identified as sources of challenge to financial sustainability, healthcare financing, care and support, and social security for the elderly Malaysians. Notwithstanding, the elderly population world over have been identified to own substantial illiquid wealth trapped in their primary residential homes, which if released can supplement their income thereby improving their financial wellbeing. The analysis highlighted some of the strengths, weaknesses, opportunities and threats that should be anticipated when contemplating reverse mortgage as a form of post-retirement consumption smoothing option for the elderly Malaysians.

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