

3. CONCEPTUAL FRAMEWORK

3.1 Introduction

This chapter outlines the research questions for the study and the formulation of hypothesis development. The chapter also presents the conceptual framework of life-cycle financial planning encompassing theories of consumption, saving, and investing. The life-cycle theory is adopted to provide a theoretical framework to analyse the concept of life-cycle financial planning in Malaysia, particularly in the areas of retirement planning i.e. saving behaviour, asset allocation and portfolio choice.

3.2 Research Questions and Hypotheses

To address the research objectives as outlined in Chapter 1 (1.4), the study attempted to answer the following research questions:

1. What are the common perceptions among Malaysians toward retirement planning?
2. Is there a goal to maintain their standard of living for retirement?
3. When do Malaysians start to save for their retirement?
4. How much should Malaysians save for retirement over the course of their working career?
5. Do Malaysian retirees have enough income for retirement without relying on their children or the government for support?
6. Is there a trade-off between consumption during their work life and during retirement?

7. Do changes in the economy affect retirement behaviour?

Figure 3.1 below shows a mapping of the research objectives to the research questions.

Figure 3.1: Mapping Research Objectives to Research Questions



The conceptual framework for this study builds on the standard life-cycle hypothesis. Based on the life-cycle model and the various life-cycle factors discussed at length below, the following 12 hypotheses have been developed to study the relevant research areas:

- H1: Age cohort has a positive orientation towards retirement planning.
- H2: Confidence in the economy is a mediating factor of age cohort affecting orientations towards retirement planning.

- H3: Confidence in the economy is a mediating factor for age cohort to be positively related towards higher expected retirement age.
- H4: Parental retirement planning has a positive impact on their children financial planning preparation.
- H5: Current financial resources have a positive impact on orientation towards retirement planning.
- H6: Current financial resources have a positive impact on the expected retirement age.
- H7: Current financial resources are a mediating factor of age cohort having a positive impact on financial planning preparation.
- H8: Confidence in the economy influences financial planning activities.
- H9: There is a relationship between personal orientation towards retirement planning and the expected retirement age.
- H10: There is a relationship between expected retirement age and financial planning preparation.
- H11: Confidence in the economy has a positive impact on consumption.
- H12: There is a relationship between consumption and current financial resources.

3.3 Conceptual Model

The life-cycle theory views retirement behaviour as a result of decisions about consumption and labour supply. The main building block of life-cycle models is the divisions of income between consumption and saving. The saving decision is driven by

preferences between present and future consumption. The basic assumption is that people find an optimal retirement age and consumption level to maximise their utility over a lifetime. Rather than current income, expected permanent income helps to explain why people have high consumption even with low income and vice versa. Economic theory suggests consumption and leisure increase with increased wealth. This hypothesis has justified an early retirement trend during the bull market years.

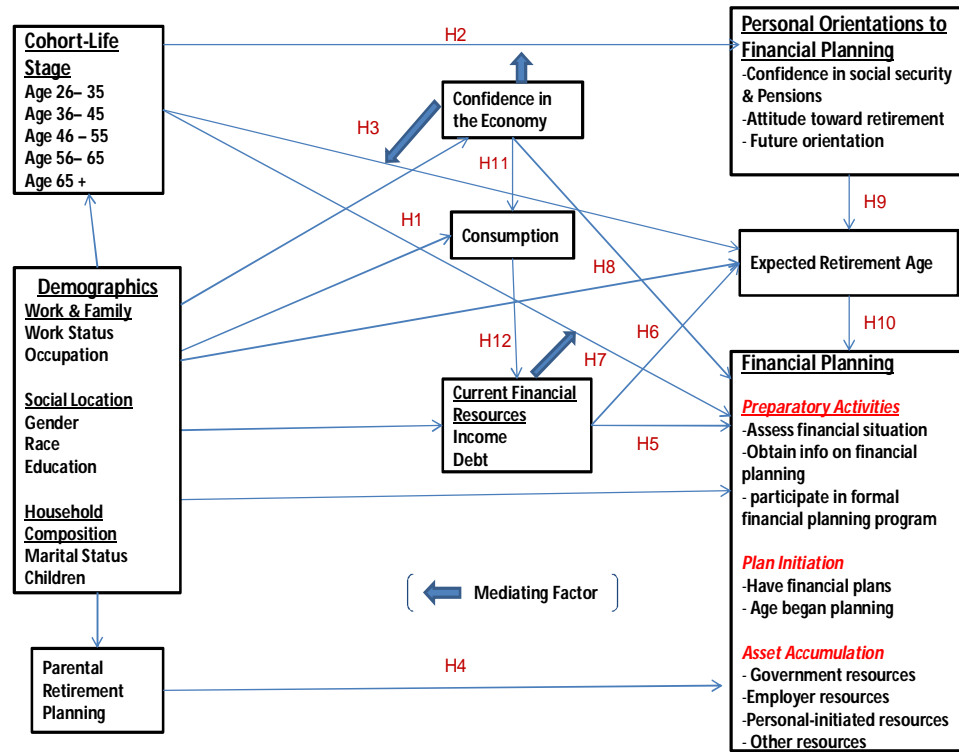
Life-cycle factors include the relationship between wealth and labour supply, and life expectancy. Perceived longevity helps to determine the working life expectancy and non-working life (Wolfe, 1983). Since people make decisions to maximise their utility over their lifetimes through labour supply and consumption, income and wealth have been common determinants when they make decisions about the timing of retirement. Previous research based on life-cycle models (Hammermesh, 1984) identifies four categories of explanatory factors – financial characteristics, demographic characteristics, health characteristics and occupation characteristics. Most studies assumed that education and health status are important in explaining retirement decisions. Health status reflects not only remaining life expectancy, but also a person's ability to work. In terms of financial characteristics, most studies have focused on the impact of retirement income including social security benefits. The life-cycle theory implies that the level of wealth decreases after reaching a peak. However, maximum wealth is not necessarily achieved right before retirement.

Life-cycle financial planning focuses inter alia on how individuals care most about lifetime consumption, not just wealth; and that human capital is as important as a

person's financial capital. In the life-cycle model, accumulation for retirement is the prime motive for saving, and the model is built around the consumption/saving behaviour of a rational individual who is assumed to maximise the present value of lifetime utility, subject to budget constraint. The starting point of the life-cycle model of consumption in life-cycle financial planning is the use of financial assets as means to transfer consumption from points in the individual's life-cycle when consumption has relatively little value to points when consumption has relatively more value.

The conceptual framework is outlined in Figure 3.2 below. The conceptual model posits that several life-cycle factors affect retirement orientations, expectations and plans: the cohort one belongs to and present life stage, social location, household composition, family and work status, the extent parents planned for their retirement, current financial resources, consumption, and views about the current state of the economy. This model will study the effects of demographic variables affecting financial planning for retirement.

Figure 3.2: Conceptual Framework of Life-Cycle Factors on Financial Planning



Income has been shown to be the main factor to determine both savings and asset holdings (Avery and Kennickell, 1991; Browning and Lusardi, 1996). Age also exerts a significant effect on savings and wealth – older households tend to have more assets (Blau and Graham, 1990; Hurst, Luoh, and Stafford, 1998). Older households save more as well, though this relationship also follows a “hump-shape” curve, with savings rates lowest for the youngest and oldest households (Bosworth, Burtless, and Sabelhaus, 1991; Attanasio, 1993). The level of education has an effect on savings rate (Bernheim and Scholz, 1993; Attanasio, 1994) and on wealth (Keister, 2004) with higher levels of education associated with larger wealth and higher rates of savings.

3.4 Life-Cycle Factors

Each component of the conceptual model will be defined, relevant previous research will be summarized, and hypothesized relationships between the model components are outlined. Demographic characteristics (marital status and retirement age) as well as financial characteristics (pre-retirement income, retirement plans and investment portfolio composition) have been found to impact the likelihood of a household having adequate income for retirement (Cole and Liebenberg, 2008). Several studies have accounted for life-cycle factors in different ways: some include the proportions of the population who are respectively young (the youth dependency ratio) and old (the elderly dependency ratio) (Modigliani, 1970; Feldstein, 1980; Miles and Patel, 1996), life expectancy (Hamermesh, 1985), and bequest motive (Hurd, 1987).

The life-cycle theory of saving predicts that consumption and saving behaviour of an individual changes greatly with income, wealth, age, marital status, and other socioeconomic conditions during the various stages of the individual's life (Tin, 2000). According to the life-cycle model, individuals work and save when they are young and run down their savings during retirement (Thornton, 2001). It has been suggested that the age structure of the population has a major impact on savings behaviour (Sarantis and Stewart, 2001). Alessie, Lusardi and Aldershof (1997) find that people in the Netherlands save for different reasons that vary by age and the differences match life stages. People seem to have saving motives that are appropriate for a certain life stage.

3.4.1 Cohort/Life Stage

People today are getting a late start on saving for their retirement. They stay longer in school, postpone marriages, and start families later than earlier generations (Wills and Ross, 2002). This study will examine whether belonging to a particular age cohort relates to differences in attitudes and financial preparation toward retirement. The study will examine differences among five age cohorts designated under different age groupings: age 26-35, 36-45, 46-55, 56-65, and age above 65. By having respondents at different stages of the life-cycle, this study will examine the attitude and the general level of preparedness of Malaysians towards preparing for their retirement – focusing on how Malaysians plan and save for their retirement vis-à-vis the life-cycle theories, how Malaysians invest their savings and their asset allocation strategies, portfolio choice, and whether pre-retirement financial planning has an impact on their post-retirement experience.

A cohort refers to a group of people with unique shared experiences or characteristics. The concept of cohort (Ryder, 1965; Rosow, 1978) has been recognised as an important way of assessing the influence of social change and historical circumstances on individuals (Elder and Caspi, 1990). In this study, a cohort will designate a group of people born during a similar period who move through historical time together (Rosow, 1978). A cohort effect occurs where people come into maturity in different times may have different attitudes to risk, thrift, and borrowing, among other things (Browning and Lusardi, 1996); social or historical changes differentiate the life patterns of groups of people. Lusardi and Mitchell (2006) find a decline in financial

knowledge after age 50. Lusardi and Mitchell (2007a) also find an inverse U-shape in the mastery of basic financial concepts, such as the ability to calculate percentages or simple divisions (as cited in Agarwal *et al.*, 2007). Luigi Guiso (2007 as cited in Agarwal *et al.*, 2007) finds that, when picking stocks, people achieve their best Sharpe ratios at about age 43.

In measuring the wealth accumulation of specific age cohorts, Sabelhaus and Pence (1999) find strong life-cycle impact on saving, with very large rates of dissaving among the oldest cohorts even after adjusting for bequests. Similarly, Hildebrand (2001) shows a strong hump-shaped age distribution of wealth in the cross section that vanishes in the cohort analysis. Highlighting the usefulness of the cohort perspective, the Hildebrand study indicates older households have less wealth than younger households at a point in time not because they dissave but because they had lower lifetime earnings.

Life-cycle consumption smoothing implies that young cohorts (26-35) should borrow, prime (36-45) and middle aged (46-55) save and amortize, while the elderly (65+) spend savings. The indicated age brackets operationalize an age structure corresponding to these cohorts (Lindh, 1999). Cohort 1 (age 26-35) may have less years in the labour market compared to members of Cohort 2 (36-45). Members of Cohort 1 are not likely to be eligible for any retirement or pension benefits, and are also unlikely to be thinking much about retirement yet. Cohorts 1 and 2 entered the labour market under similar conditions: a culture of individual responsibility, the continuing trend toward DC social security systems, the era of technology and service

jobs, and more job mobility. Cohort 3 (born between years 1954-1963), the younger Baby Boomers, entered the labour market in the 1970s to 1980s. Cohort 4 (born between years 1944-1953) comprise of the older Baby Boomers (Dailey, 1998). Cohort 5 comprising of people born in 1943 and before (age above 65) is the oldest cohort. They live through the war years and depression. Having gone through these periods of severe economic hardships which imposed extreme financial distress even among the wealthiest of individuals, people in this cohort tended to be more prudent and save throughout their lives to protect against financial exigencies (Schewe and Meredith, 1995). Hence this cohort places a high value on job loyalty, occupational stability, savings and investments. This cohort has the lowest rate of working women, who thus rely largely on their spouses and family members for their retirement income.

It is hypothesised that age cohort has a positive orientation towards retirement planning. Confidence in the economy is a mediating factor of age cohort affecting orientations towards retirement planning. Confidence in the economy is a mediating factor for age cohort to be positively related towards higher expected retirement age.

3.4.2. Work and Family

The relationship between work and the family are critical factors to financial planning and retirement preparations. Work entails income. Employed persons are earning income and some are accumulating retirement savings and benefits. An individual's work status (employed or unemployed) can affect consumption behaviour (Blake,

2004). Unemployed persons, on the other hand, have to resort to living off their savings from past earnings, support from family members or to seek assistance from state social and welfare assistance. The accumulative effect of prolonged unemployment is lower or no retirement savings and income (Kijakazi, 2002).

A working life runs from the completion of schooling up to retirement (Browning and Crossley, 2001). Most people spend a significant part of their adult lives in some form of employment and work. Through their job, people derive and build their value system, personal relationships, self-esteem and financial security. The economic status of older adults affects where they live, how they relate to the community, with whom they socialise, and even how they vote. Income and employment greatly impact the way older adults live their lives. For many, work brings structure to their lives, defines roles, expertise, purpose, pride and self-esteem, economic resources, and social interaction.

Employed persons may be working full-time or engaged in part-time or temporary assignments. Full time employees are likely to earn higher income and more likely to be eligible for pension benefits (in the case of civil servants) or retirement benefits such as EPF contributions. Among individuals who are not employed, some are unemployed, disabled, still schooling, homemaker, or caregiver. Homemakers and family caregivers are not compensated for their work, which means they are not having any income or accumulating any retirement benefits and savings. Typically homemakers and caregivers are females, who must depend on spousal support or past

savings for later-life income. Disabled persons are sometimes eligible for welfare assistance, but the majority will have to depend on family members for support.

While retirement preparations may involve the work sphere, the family considerations are important. Time spent out of the labour market that is devoted to marriage, family life, and child bearing, caring for sick family members, and as a homemaker, impact financial planning for retirement due to discontinuity in work and income. Family responsibilities and commitments may involve work decisions such as choosing to work part-time to be able to spend more time with family. This is particularly critical in the case of female members of the family who typically assume more responsibility for caring for the family – giving up their own career opportunities to devote to their spouse as homemaker after marriage, devoting their time to look after their children and often times as caregivers to the elderly members of their family. These sacrifices can therefore undermine their own career advancements and in turn reduce their lifetime earnings, retirement savings, and financial independence.

However, time spent out of the labour force pursuing educational goals should not be considered negative factor in terms of retirement income as further education may enhance knowledge, skills and career advancements leading to promotions and better income opportunities. Therefore, one cannot understand the effects of work on retirement preparations without also considering the processes operating in both the realms of education and family.

3.4.3 Social Location

The relationships between socioeconomic status with education and occupation is an important indicator of the degree of social equity and the success of government policies aimed at reducing social inequality. In this study, social location is examined by considering gender, race/ethnicity, and education.

Socioeconomic background is an important concept among social researchers. The American sociologist, William Lloyd Warner (1949) observed that American social class was largely based on attitudes and the type of work they perform. Weber (1924 as cited in Wright, 2003) also emphasised on the type of work, focusing on the market value of skills and other attributes that the individuals bring to the labour market. Income equality is an important consequence of the individuals' social class.

Social location recognises the existing hierarchies and divisions (age, class, ethnicity, gender, sexual orientation) which structure experience. A social location framework attempts to understand the balance between an assigned identity and selected identity (Grenier, 2005). The diversity of individuals in a community is accounted by examining from a social location perspective – diverse and varying backgrounds, ability, age, culture, ethnicity, and socioeconomic status. According to Stoller and Gibson (2000), hierarchies based on gender, race or ethnicity, and social class create systems of disadvantage and privilege in society. A lifetime spent in the systems of inequality leads to considerable diversity in old age (consistent with cumulative advantages and disadvantages hypothesis). Social location impacts life-cycle

experiences in terms of work and family spheres, retirement expectations and experiences, and is expected to influence financial and retirement planning behaviours.

3.4.3 (a) Gender

Gender issues are increasingly important in financial and retirement planning. Women make up about 50 percent of the population in Malaysia and about 46 percent of the country's labour force in 2009 (Source: Economic Report 2009/2010). While the economic position of women has improved over the years, women in the labour force are in the lower paid work, and women own only 15 per cent of business enterprises in Malaysia (Source: Ministry of Women, Family and Community Development, Malaysia). This will have detrimental effects on their retirement income in terms of lower contribution rates to the EPF. As such and given the longer life expectancy, it is expected that Malaysian women will face higher risk from poverty in old age.

Much of the Malaysian economic policies had been directed towards distributional issues along ethnic lines, socio-economic groups, rather than gender-specific terms. Given the significant improvements in increasing women participation in the labour force, one can work on the assumption that there is no significant difference in job productivity between men and women. One issue that does seem to differ between the genders is the work status after marriage. There are gender differences in financial literacy, with women displaying a lower level of financial knowledge than men, particularly with regard to risk diversification. Lusardi and Mitchell (2007) find women, controlling for education have lower financial literacy than men, and warn

about the difficulties women may face in making financial decisions, particularly after the death of a spouse.

Women earn less than men over their lifetimes and live longer. Most women have children during their vital career development years and drop out of the labour force to take care and raise their children. That means earning less and putting fewer years at work which affect their retirement savings and investment opportunities. Marriage and children were found to influence women's retirement and related decisions (Vinick and Ekerdt, 1989). Loughran and Zissimopoulos (2007) find that marriage has a negative effect on the earnings of women independent of the effect of children. Some women may enter the work force later in life, having to raise children after marriage. Childbearing and the need to work around family responsibilities can impact eventual retirement incomes (O'Rand and Landerman, 1984). The responsibility for children will potentially affect their retirement incomes. Widowhood may also steer a woman towards poverty in old age, from the untimely death of the husband. The loss of a husband can send an elderly widow into poverty as it causes the end of earnings or retirement benefits (Foreman, 1983). If the husband's retirement income was not adequate, the widow would be left financially destitute, if her own retirement income was inadequate. Because women live longer than men, women are more likely than men to spend their retirement years in poverty.

Since more widowed adults are females, gender itself is a risk factor (Muller, 1999). Women are more likely to spend their retirement years alone due to gender differences in mortality and remarriage rates after divorce (US Census Bureau, 2000). Sunden and

Surette (1998) conclude that gender and marital status significantly affect how individuals choose to allocate assets in defined-contribution plans. Traditionally, women are more likely than men to work part-time and intermittently partly because they may sometime withdraw from the labour force for a while after marriage or after having children. As a result, they had fewer incentives to invest in education and training that improved earnings and job skills giving rise to the so-called “gender gap” (Becker, 1992). However, the decline in family size, the growth in divorce rates, the rapid expansion of the service sector where most women are employed, the continuing economic development that raised the earnings of women along with men, and civil legislations have all encouraged greater labour force participation by women. As women are expected to live longer than men, meaning that wives are expected to outlive their spouses, having adequate financial resources to prepare for late life is critical.

Compared to men, women are more likely to be divorced or widowed in old age and consequently without a partner to share financial resources and responsibilities with (Rosenthal and Morith, 1993); are twice as likely to be in poverty (Clark and Quinn, 1999); have a longer life expectancy (Schulz and Beach, 1999); and are more likely to have health problems and be disabled in later life, which can be considerably costly (Rosenthal and Morith, 1993).

3.4.3 (b) Race/Ethnicity

Malaysia's demographics are represented by multiple ethnic groups. Based on the 2010 national census, Malays and other Bumiputra groups make up 67.4% of the population, Chinese (24.6%), Indians (7.3%), and Others (0.7%) (Department of Statistics, Malaysia). Race/ethnicity forms a significant part in the discourse concerning virtually any Malaysian social condition or issue. This also applies to personal interaction in personal financial planning.

Racial categorisation is biological but its significance is mainly social. Ethnicity, while related to race, refers primarily to social and cultural forms of identification and self-identification (Hinman, 2005). Studies in the United States have found that black households have less wealth; white households were at least twice as likely as black households to receive an inheritance and were about three times as likely to expect to receive an inheritance in the future (Menchik and Jianakoplos, 1997).

3.4.3 (c) Education

Education and financial literacy is an important predictor of financial and retirement planning. The shift from defined benefit to defined contribution retirement plans means that individuals have to decide how much they need to save for retirement, how to invest their savings, and during the post-retirement period, how to allocate their portfolios and draw down their savings and income. Individuals have had to become increasingly responsible for their own retirement security. However, financial products

have become increasingly more complex and individuals are presented with new and ever more sophisticated financial instruments and decisions. Easy access to credit and opportunities to borrow are plentiful. Are individuals well equipped to make financial decisions? Do they have the necessary education and financial literacy to do so?

Several studies have argued that less educated households are more likely to be poor planners and exhibit time inconsistent preferences (Lusardi and Mitchell, 2007; Laibson *et al.*, 2007; Folk, 2011). Lusardi and Mitchell (2007b) find that those who were financially literate when young are more likely to plan for retirement, showing that it is literacy that affects planning and not the other way around. Rooij *et al.* (2007) find that financial literacy affects financial decision-making: those with low literacy are more likely to rely on family and friends as their main source of financial advice and less likely to invest in stocks. And financial literacy differs substantially depending on education, age and gender. Households with higher financial literacy are also more likely to rely on professional financial advisers (Rooij *et al.*, 2007). Lusardi (2003) find that households whose head has a high education have higher savings. Carroll and Summers (1991) find that lifecycle expenditure tracks income profiles across educational attainment. Bernheim and Scholz (1993), Attanasio (1994), and Hubbard, Skinner and Zeldes (1995) have documented wide disparities in wealth holdings across different education groups. Bernheim *et al.* (2001) document that food expenditures drop relatively more at retirement for low wealth and low income households. Households whose head has low education are less likely to plan; this may explain why they accumulate little wealth or why they do not invest in high return assets, such as stocks (Lusardi, 2003). Bayer *et al.* (1996) found that education can

play an important part in determining the attitude towards investment and improve the quality of personal financial decision-making. Education may have an effect on the type of investments people choose if they decide to save (Poterba and Wise, 1999). Financial education was found to have an impact on a person's willingness to invest (Bernheim and Garret, 1996); evidence suggests that financial education may affect household financial behaviour (Bernheim *et al.*, 1997).

Education facilitates individuals in the acquisition of new knowledge and skills that increases their productivity and value in the labour market, thus increasing their earnings (Schultz, 1961; Folk *et al.*, 2012). Many social scientists consider that investment in education is a major strategy in poverty reduction and educational achievement itself is central to future life chances. The amount of education an individual receives not only affects his earnings, but the quality of his employment as well (Mincer, 1991). Mincer stated that educated workers have three advantages relative to less-educated workers: higher wages, greater employment stability, and greater upward mobility in income. Education is becoming even more important in the new information economy. Edward Denison (1985) estimated that education per worker was the source of 16 percent of output growth in non-residential business. Becker (1975) refers to the knowledge, information, ideas, skills, and health of individuals as human capital. Human capital is the accumulation of investments in education, training, and health that raises the productive capacity of people and returns in future times from investments made at the present time. In life-cycle investing, human capital is as important if not more important than an individual's financial resources and assets.

The cumulative advantage and disadvantage hypothesis posits that individuals who come from wealthier backgrounds have greater access to quality education and higher-paying jobs early in life, thus accumulating greater assets throughout the life course (Merton, 1968; Dannefer, 1987). Consequently, individuals who are more disadvantaged early in life typically lack access to resources that can help them climb out of their disadvantaged positions. Therefore, by later life, the income gap has widened rather than narrowed. On the other hand, people have on average, been devoting more time to their education, so their entrance into the labour market is delayed. In addition to the trend toward early retirement (Burtless, 1999) and increasing life expectancy, people are spending less time in the labour force and more time in retirement. This has important implications for retirement income; while people are in need of retirement income for more years in the post-retirement period, they are spending lesser years in the labour force.

Given the correlation between income and education, prior studies found evidence of a distinct pattern of higher saving for higher education groups (Avery and Kennickell, 1991; Bernheim and Scholz, 1993; and Attanasio, 1993). Beside the effect of education on increased earnings, studies have found that persons with higher levels of education tend to have better health than those with lower levels of education. Individuals with higher levels of human capital have made an investment in themselves, an investment that they protect by taking preventive measures to increase the probability of better health. Regular exercise, annual medical checkups, and mammograms can all be viewed as investments in the maintenance of human capital. Wolfe and Zuvekas (1995) found considerable evidence that there is a positive

association between an individual's level of schooling and his health status. This effect of education on health extends to family members as well. Grossman (1976) found that schooling has a positive and statistically significant effect on current health, even when controlling for past health.

3.4.4 Household Composition

Another demographic factor which is important for saving behaviour is the composition of the household. A household is defined as made up of one individual, or a single individual with dependents. Household composition refers to the household size: the number of individuals in family living at the same address with common housekeeping, presence of dependent children. Wang (1994) reports that saving of households is negatively correlated with the number of children and the age of the youngest child. A demographic transition can affect saving behaviour – a reduction in saving when children are younger and more numerous relative to adults. Household saving may be increased as the number of young dependents reduces and the number of working adults increases and frees financial resources to be saved as well as consume more. Younger adults staying with their parents may accumulate more savings. Saving rates are higher for married couples with no children and lower for households with children, while lone parents have the lowest saving rate (Browning and Lusardi, 1996).

On the other hand, Smith (1988 as cited in Zissimopoulos *et al.*, 2008) find that compared to unmarried individuals, married couples report greater average wealth,

more than remarried couples, and singles. First, economies of scale may lead to more consumption with lower expenditures for married couples compared to singles. Second, the disruptions from divorce or widowhood may result in unexpected expenses and lost income. Third, the health benefits of being married may lead to lower mortality risk, and consequently a greater motive to accumulate wealth. Consistent with a hypothesis of economies of scale, Zissimopoulos *et al.* (2008) reported that each year spent married increases wealth by 4 percent. Married couples may consume many goods and services jointly (e.g. entertainment, housing) for the same cost as a single person thus translating into additional wealth (or additional consumption).

Marriage disruption may involve unexpected expenses such as legal expenses related to a divorce or health care expenditures related to the death of a spouse. Women who experience a marital disruption between their mid-30's and 40's have 36 percent lower wealth than women who never experience a disruption or experience it at younger or older ages. On average, continuously married couples have the greatest amount of wealth, more than remarried couples, and singles. Singles experiencing more than one marital disruption have the lowest amount of wealth (Zissimopoulos *et al.*, 2008). However, remarriage has been found to partially offset the detrimental effects of a marital disruption but continuously married couple still have more wealth by comparison (Wilmoth and Koso, 2002).

Being married has been associated with better health throughout the lifespan (Coombs, 1991 as cited in Zissimopoulos *et al.*, 2008; Pienta, Hayward, and Jenkins, 2000) and

significantly greater longevity (Gove, 1973 as cited in Zissimopoulos *et al.*, 2008; House, Landis, and Umberson, 1988). Hence married couples may save more to protect against outliving their resources. In addition, financial literacy may vary by marital status: first, if one spouse (e.g. husband) specializes in acquiring financial knowledge; then upon divorce or death, the spouse who did not specialize (e.g. wife) will enter the unmarried state without this financial knowledge (Lusardi and Mitchell, 2007).

Another source of heterogeneity across marriage groups may be differences in the number of children (Zissimopoulos *et al.*, 2008). The presence of children has a large effect on household's net wealth and consequently is an important factor in understanding the wealth distribution. Since children increase household consumption requirements, the presence of children in the household and the timing of births may affect the length of the credit constrained period. Since larger households have children attached with them for longer period, than other households with fewer children, they will be borrowing constrained for a longer period of time. All else being equal, this reduces the optimal wealth at retirement (Scholz and Seshadri, 2007). Consequently, families with children would be expected to have lower retirement wealth than families without children.

Married couples with children, compared to never married individuals without children, may choose to accumulate wealth in order to leave a bequest to children. Alternatively, they may give to adult children while they are alive to ease liquidity constraints (higher education or purchase of a house), thereby lowering the wealth

available for consumption during retirement (Zissimopoulos *et al.*, 2008). But households with many children may have larger positive late-career earnings shocks which may lead to higher optimal target replacement rates of pre-retirement income (Scholz and Seshadri, 2009). Family ties have been identified as an important source of support in retirement years (Longino and Lipman, 1981). Financial support from children may help to reduce the need to continue working in old age.

Family size is correlated with lifetime earnings, so optimal asset accumulation will be correlated with children if wealth accumulation varies with a household's place in the income distribution. The number of children (and adults) in the household affects the utility of a given amount of (private) consumption, which in turn affects optimal consumption decisions. With uncertain earnings (and uncertainty in health and lifespan), the timing of fertility can affect optimal consumption decisions. Lusardi (2003) find that married couples have high savings, while children have a depressing effect on wealth. Households who experienced negative shocks in the past end up having lower wealth; while households receiving inheritances or other transfers leads to higher saving. Households with a bequest motive accumulate more, while those who are impatient accumulate less wealth. Households who do not plan for retirement end up having much lower savings than households who have thought and plan their retirement. Hurst (2004) finds that households that did not plan when young end up having much lower amounts of wealth at retirement.

3.4.5 Parental Retirement Planning

Saving behaviour can be influenced by the behaviour of others, in particular, by the experience of other family members such as parents and older siblings. Bernheim *et al.* (2001) found that people, who, as children, have been encouraged to save using a bank account, save more than others in their adult life. Similarly, those who characterised their parents as having saved more than average saved more than others.

Webley and Nyhus (2006) suggest that the future orientation of adults is significantly associated with their experience as children. These features of economic socialisation (such as discussing financial matters with one's parents) do have an impact on the future orientation of children. Hence, we can see evidence of an overall economic orientations being passed down through the generations. Shea (2002) finds that children whose fathers were displaced from their jobs have more wealth as adults than children with otherwise similar fathers who do not experience job loss. Planning for retirement has been found to be shaped by the experience of older siblings and the experience of parents; in particular, unpleasant events such as financial difficulties and health shocks at the end of life, induce people to plan. Households whose head does not plan have substantially lower wealth holdings than households whose head has made some retirement plans. This shows that children learn from the experience of parents and in particular from negative shocks (Lusardi, 2001, 2003).

Similarly, some researchers argued that people who grew up during the great depression learned to be more frugal and financially savvy than those who grew up

during more recent and affluent times. Cox, Ng and Waldkirch (2003) find that children whose parents experience a large drop in consumption upon retirement tend to subsequently reduce their own consumption and learn the need to save. Healthy parents are likely to place a high value on the future and to save at an above average rate. This tendency to save could have been passed down to children, along with attitudes about health (Lusardi, 2003). Parental health may affect savings directly. Parents may compensate the children in worst financial conditions by leaving larger bequests. Households accumulate more wealth when they witness their parents spend time in a nursing home before death (Lusardi, 2003).

It is hypothesised that parental retirement planning has a positive impact on their children financial planning preparation.

3.5 Confidence in the Economy

When data is collected about retirement plans and orientations is important. It is hypothesised that confidence in the economy influences financial planning activities. It is also hypothesised that confidence in the economy has a positive impact on consumption.

The year 2008 followed by the early part of 2009 represented one of the worst period of global economic downturn since the great depression of the 1930s. A collapse of the US sub-prime mortgage market and the reversal of the housing boom in other industrialised economies have had a ripple effect around the world which also

adversely impacted Malaysia (Mahani and Rajah, 2009). Other weaknesses in the global financial system have surfaced. Some financial products and instruments have become so complex and twisted, that as things start to unravel, trust in the whole financial and banking system in the West started to fail, symbolised by the bankruptcy of the venerable Lehman Brothers, the Madoff scandal, and numerous other colossal financial collapses.

Many investors lost their savings in their retirement investment accounts and financial products structured by leading international banks and financial institutions not only in the United States but also Asian countries such as Singapore and Hongkong. It was reported that pension funds in the OECD countries lost over \$4.0 trillion in market capitalization in 2008 (Whitehouse and Yermo, OECD 2008) Workers close to retirement face the prospects of drawing down their retirement savings at time of diminished asset values. If there is a recession, generally older workers are often the first to be made redundant, dealing a double blow to their finances. These circumstances may therefore impact negatively people's views and plans about their retirement planning and the adequacy of their savings and investments.

The 2009 Retirement Confidence Survey in the US found the lowest level in confidence among American workers who are confident about having enough money for a comfortable retirement. Retirees also posted new low in confidence about having a financially secure retirement, with only 20 percent saying they are confident (down from 41 percent in 2007). Most respondents cited the recent economic uncertainty, inflation, and the cost of living as primary factors, which may cause them to work

longer and defer their expected retirement. Retirees also plan to work to supplement their income in retirement (Helman, Copeland and VanDerhei, 2009).

As a result of the collapse of the housing bubble in the US, millions of middle class homeowners ended up with little, no equity or even negative equity in their homes (Rosnick and Baker, 2009). The plunge in house and stock prices caused massive loss of wealth and confidence among millions of individuals and households. Many among the baby boomer generations who have had much of their wealth saved over their working lifetime erased, for the most part have insufficient time remaining before retirement to recover and accumulate adequate savings. With the recession growing deeper, the average individuals and households have generally have to cut back on consumption in an effort to restore their savings, touching off a vicious cycle of falling demand and increased unemployment.

3.6 Consumption

The life-cycle hypothesis predicts that consumption remains smooth during the transition from work to retirement (Modigliani and Brumberg, 1954). According to the standard life-cycle model of consumption, forward looking agents will smooth their marginal utility of consumption across predictable income changes such as retirement (Hurst, 2007).

The literature on consumption identify two types of agents in the economy: one that behaves according to the predictions of the classical life-cycle permanent income model, and the second type called “rule of thumb” consumers, simply consume

according to their current income. Empirically, the fraction of “rule of thumb” consumers in the economy has been estimated to range from 20 to 50 percent (Campbell and Mankiw, 1990, as cited in Lusardi, 2001). For example, many younger people start out as “rule of thumb” consumers; as they witness shocks to older siblings (who go through retirement) or to parents, they switch to the other group. This phenomenon is consistent with the fact that we do not see much saving until age 50 or more, which is also the time when older siblings start to retire and parents are more likely to experience health problems. Bernheim *et al.* (2001) stated that “contrary to the central tenets of life-cycle theory, there is little evidence that households use savings to smooth effects on consumption of predictable income discontinuities” such as retirement. Understanding consumption changes is important for individuals who are trying to assess how much income they will need in retirement, and what more they need to do before retirement to continue to enjoy the same level of economic well-being that they now experience (Fisher *et al.*, 2005).

In life-cycle financial planning, it is consumption over a lifetime that is of primary interest to individuals and families, rather than wealth. People care more about their lifetime consumption, not wealth. Consumption is a measure of ultimate economic well-being (Shapiro, 2009). This is an important distinction because optimising wealth at various life stages is considerably different than optimising utility or welfare from consumption. Lifetime consumption smoothing implies that deploying resources most efficiently typically results in the need for a contingent contract. Within this context, it is always more efficient to buy a lifetime annuity, rather than a stream of income that is paid whether or not you are alive (Bodie, 2007 as cited in Kotlikoff, 2008).

Households who accumulated too little wealth for retirement would either have to: (1) reduce their consumption in retirement; and/or (2) delay their retirement or take up a part time job after retirement (Hurst 2004). Bernheim, Skinner, and Weinberg (1997 as cited in Lusardi, 2003) show that the drop in consumption is much sharper for those households that arrive at retirement with little wealth.

In the context of the Malaysian economy, the life-cycle hypothesis would imply that the age profile of the Malaysian population has a bearing on the private consumption-income ratio given that an individual's position in his life-cycle would determine his consumption and savings. The young in the work force may have relatively low income and consequently lower or even negative saving rates. As their income rises in their middle-age years, their saving rates may increase correspondingly. Then upon retirement, their incomes would drop and they start dissaving. Thus, in the early stage of his life, the individual is a net borrower. In the mid-stage, he has sufficient income to repay debts and make provisions for retirement after meeting his consumption needs. In the late stage, he dissaves.

The presence of children increases the consumption requirements of young families, so that high rates of youth dependency can depress savings and lower the impact of economic growth on savings rates (Fry and Mason, 1982, Mason, 1988 as cited in Bloom *et al.*, 2007). Current spending should reflect everything known about future income and interest rates (Wilcox, 1989). Hubbard, Skinner, and Zeldes (1994) and Carroll (1997) show that consumption and income age profiles are both significantly hump-shaped, and consumption tracks income over the early part of life. However,

liquidity constraints restrict individuals to consuming their current income which is inconsistent with the life-cycle model (Hall, 1978; Flavin, 1985; Zeldes, 1989; Cushing, 1992). Thurow (1969) suggested that households are liquidity-constrained: that that they would like to spend more than their current income when they are younger, but they cannot borrow. Nagatani (1972) argued that instead of liquidity-constrained, households are just being “prudent”. Prudence leads households to treat future uncertain income cautiously and not to spend as much currently as they would if future income were certain. Thus, prudence is the precautionary motive for saving (Browning and Crossley, 2001).

Aguiar and Hurst (2005) find that the gap between consumption and expenditure grows by 30 percent between the ages of 45-49 and 65-74; they find that the majority of the divergence between consumption and expenditure results from increased time spent in home production. As the opportunity cost of time starts to decline after middle age, households invest more time in both shopping and home production, thus reducing the market cost of their consumption basket. In a later study, Aguiar and Hurst (2008) specify that after accounting for changes in family size, consumption expenditure increases through middle age and then declines sharply thereafter; and that this holds for nondurable expenditure as well as total expenditure. They find that conditional on family size and cohort fixed effects, non-durable expenditure (excluding education and health) increases by roughly 30 percent between the ages of 25 and 45, and falls by nearly the same amount between 45 and 70.

Some authors argued that the lifecycle profile represents evidence against the forward-looking consumption “smoothing” behaviour implied by permanent income models, since the hump in expenditures tracks the hump in labour income as documented by Carroll and Summers (1991). Several studies have shown decline in expenditure post-middle age, attributing this behaviour to impatience (Gourinchas and Parker, 2002), non-separability between consumption and leisure in preferences (Heckman, 1974), preferences that shift with family size (Attanasio *et al.*, 1999). This view interprets expenditure declines in the latter half of the lifecycle as evidence of poor financial planning (Aguiar and Hurst, 2008). People need to build a buffer stock of assets early in their lifecycle, generating the increasing expenditure profile found during the first half of the lifecycle. Others focused on the drop in consumption expenditures at retirement, suggesting poor planning (Bernheim, Skinner and Weinberg, 2001).

Before retirement, consumption may be financed by labour earnings, decumulations of previous savings, or inheritances. After retirement, consumption is financed by savings and assets accumulated earlier (Engen *et al.*, 2004; Butrica *et al.*, 2006). Based on the life-cycle model, following retirement households will run down asset-holdings in order to maintain consumption (Banks, Blundell, and Tanner, 1995). Bernheim (1987) found that individuals did run down their assets following retirement albeit the rate of decumulation was low – less than 2 percent a year. Hurd (1990) argued the wealth decumulation could be explained by allowing for the uncertainty over the date of death. This would cause risk-averse individuals to start running down their assets at a later date, not necessarily at retirement. The slow rate of wealth decumulation after

retirement may be attributable to a bequest motive (Kotlikoff and Summers, 1981; Alessie, Lusardi and Kapteyn, 1995).

A fall in expenditure on retirement is expected as households no longer have to pay work-related costs, travel fares to and from work, and working clothes (Banks, Blundell, and Tanner, 1995). Borsch-Supan and Stalh (1991) argue that unexpected age and health-related consumption constraints can account for falling consumption and hence wealth accumulation during retirement among the retired elderly. Another possible explanation for falling expenditure is that individuals are able to substitute leisure for consumption after they retire (Banks, Blundell, and Tanner, 1995).

However, there are households who enter retirement with very low wealth even after controlling for differences in income, demographic, employment and health histories. These households experience a large consumption decline at the onset of retirement. Their consumption profiles are consistent with either “rule-of-thumb consumption” (Campbell and Mankiw, 1989) or hyperbolic (Laibson, 1997), where the households display a lack of planning behaviour. Under the former theory, the households are said to be myopic and do not attempt to plan for the future (Aguila, Attanasio and Meghir, 2008). In the latter theory, the households attempt to plan, but are incapable of committing themselves to carry out their plans (Hurst, 2004). Households that experienced real consumption declines upon retirement often had experienced involuntary retirement such as severe health shocks prior to their planned retirement date. The early retirement reduces their lifetime resources as they work lesser years, and the health shock often is accompanied by increased medical costs (Hurst, 2007).

Individuals may be able to smooth their consumption as they transition into retirement; however, as individuals live longer, the real question is whether they can maintain their consumption and quality of life over the remaining period of their life? Scholz *et al.* (2006) found that roughly 20 percent of households in the US are ill-prepared to sustain consumption during retirement, while the remaining 80 percent of households have accumulated enough wealth to maintain their marginal utility of consumption through retirement. It is possible that households who planned insufficiently would not learn about their saving shortfall until after they retired (Hurst, 2007).

It is hypothesised that confidence in the economy has a positive impact on consumption. It is also hypothesised that there is a relationship between consumption and current financial resources.

3.7 Current Financial Resources

The life-cycle theory assumes that people divide income between personal consumption and saving. If financial resources accumulated for retirement are sufficient to meet the financial needs of retirement, an individual may choose to retire. However, if the accumulated financial resources are insufficient, retirement may have to be deferred to a later date to allow time to accumulate additional financial resources or the retiree will have to accept a lower level of living in retirement. An individual's retirement timing responds to expected changes in wealth (Sevak, 2002). A household's saving is defined as adequate if it is accumulating enough wealth to be able to smooth its marginal utility of consumption over time (Engen *et al.*, 2004).

Moore and Mitchell (2000) suggest that delaying retirement can substantially reduce the savings shortfalls.

Empirical evidence indicates that higher-income households save a larger portion of their incomes, and accumulate greater wealth, than lower-income households. Most low-income households have very low or negative saving rates and limited or negative asset accumulation (Bunting, 1991; Bernheim and Scholz, 1993; Hubbard, Skinner, and Zeldes, 1994). Higher income is associated with a greater likelihood of having savings and retirement investments (Poterba *et al*, 1994; Hubbard and Skinner, 1996). Higher income is associated with a greater likelihood of home ownership (George, 1992; Pynoos and Golant, 1996).

The literature shows that many households have very little savings or wealth as they approach retirement (Burtless, 2004). Warshawsky and Ameriks (2000) find that about half of working middle class American households will not have fully funded retirements; and some will run out of resources very shortly after retirement. They find that many households have limited resources until late in their life-cycle or start very late, up to the point where it is not possible to do much accumulation. Moore and Mitchell (2000) conclude that the majority of older households will not be able to maintain current levels of consumption into retirement without additional saving. The empirical work on consumption suggests that these predictions may turn out to be accurate; there is mounting set of evidence that consumption falls sharply at retirement. Hamermesh (1984) reports that consumption for retirees early in retirement exceeds by 14 percent the income from their financial, pension, and social security

wealth; these retirees are not able to sustain the level of consumption into their retirement. Thus, households respond to the insufficiency of resources by reducing their consumption as they age (Mariger, 1987; Hausman and Paquette, 1987; Banks *et al.*, 1998 as cited in Lusardi, 2001). Bernheim *et al.* (2001) show that consumption exhibits a sharp drop at the time of retirement and an even more pronounced decline post-retirement. They find a strong negative correlation between retirement savings and the magnitude of the consumption drop; consumption falls sharply for those with little wealth. While planning is found to affect private wealth and portfolio choice, it could well be that household who do not plan still manage a comfortable retirement, because of other variables not accounted for such as help from children, other sources of support, etc. (Lusardi, 2001).

Several US studies on savings emphasise there is huge heterogeneity in household savings and wealth holdings, even among households close to retirement. A quarter of US households have less than \$30,000 (in 1992 dollars) in total net worth (Smith, 1995; Venti and Wise, 1998, 2001; Lusardi, 1999). Engen, Gale and Uccello (1999) found that up to one quarter of the pre-retired population seem to under-save for retirement. Moore and Mitchell (2000) conclude that the majority of older households will not be able to maintain current levels of consumption into retirement without additional savings. Similarly, an Australian study shows that the emphasis among Australians appears to be on current consumption: using money to create the lifestyle people want to live, here and now (Mackay, 2001). This is reflected in a deterioration of the attitude toward saving; due to a disinclination to sacrifice current spending for future savings.

Many households have limited resources until late in their life-cycle or start saving very late, up to the point where it is not possible to do much accumulation (Lusardi, 2003). According to Hurd and Rohwedder (2006), the less well-to-do tend to die earlier than average; in a life-cycle model with forward looking behavior, the less well-to-do would consume more than the average consumption level conditional on their resources because they expect to die sooner than average. Bodie posits (2007 as cited by Kotlikoff, 2008) that saving is all about insuring and not about speculating.

It is hypothesised that current financial resources have a positive impact on orientation towards retirement planning. Current financial resources have a positive impact on the expected retirement age. Current financial resources are a mediating factor of age cohort having a positive impact on financial planning preparation. There is a relationship between current financial resources and consumption.

3.8 Personal Orientations to Financial Planning

As more Malaysians move into retirement, it is crucial to learn whether families know how to plan for retirement and whether they can execute these plans effectively. Saving for retirement requires a degree of self-control in order to balance current spending against future financial security. While financial education may impact the intention to invest, retirement savings is an area in which individuals may procrastinate (Thaler and Bernartzi, 2001; Choi *et al.*, 2001). Failure to recognise the need and consequently a lack of motivation is among the reasons cited as to why people did not save for their retirement (Dawson, 2002).

In a study on American workers' retirement planning and saving behaviour, Yakoboski and Dickemper (1997 as cited in Lusardi, 2001) report that a large proportion of workers have done little or no planning for retirement; only 36 percent of workers have tried to determine how much they would need to save to fund a comfortable retirement. In their survey, it was found that as many as three-quarter of the workers have little idea regarding how much money they would need to accumulate for retirement. Most respondents reported that they could not save more or retirement was too distant to know what would be needed. A significant proportion reported they could not find the time; while others find the process is either too complicated or they could not find help to do it (Lusardi, 2001).

As planning is an important predictor of saving and investment success, this may account for why household wealth holdings differ, and why some people enter retirement with very low wealth (Lusardi, 1999; Venti and Wise, 2001). In addition to financial retirement plans and expected retirement age, the other major outcome in Figure 3.2 (Chapter 3) is "personal orientations to financial planning". This comprises of: (1) confidence in the social security and pension systems; (2) attitude toward retirement; and (3) future orientation. Confidence in the country's social security and pension system will be explored. This study will examine the effects of government policies on retirement saving behaviours and the individual's portfolio choice.

It is hypothesised that there is a relationship between personal orientation towards retirement planning and the expected retirement age.

3.8.1 Confidence in Social Security and Pension

The global trend is toward shifting responsibility for old age financial security from the state and employers to the individuals. Given the growth in defined contribution pensions and provident funds, and the concomitant dependency on the capital market performance, recent negative economic circumstances may cause individuals, especially those close to retirement age, to worry about their post-retirement financial security. Individuals who are less confident about the adequacy of their retirement savings and assets may have to start saving more, defer their retirement plans, or to seek new employment to supplement their post-retirement income.

3.8.2 Attitude toward Retirement

The question of how much to save for retirement touches on many issues in economics, psychology, and health. Most people accept retirement as a normative phase of their life-cycle. The greatest evidence is the trend toward early voluntary retirement. Prior to the 1930s depression in the US, the concept of retirement was often viewed negatively – as a period of declining health and greater dependency, even symbolizing worthlessness (Hareven, 1995).

Views and attitude toward retirement may affect plans for the transition. Individual attitude toward retirement is closely allied to the financial situation. According to Atchley (1972), the higher the expected income, the more favourable the attitude. Glasmer (1981) found that those who prepared for retirement may view the event more

positively. A worker's evaluation of his present financial situation, social activity level, close friends, and perceptions of preparedness for retirement are determinants of a positive attitude toward retirement (Glasmer, 1976).

People spent thirty or more years of their adult life working, and retirement represents a sharp social, psychological, and economic break with life as they know it. Individuals who do not want to retire and who think negatively about retirement are less likely to make preparations to retire compared to people who view retirement as a desirable period of life (Fretz *et al.*, 1989). People with negative views toward retirement are less likely to think about retirement. Individuals who think about their retirement are likely to make preparations for their retirement. Preparations such as attending financial planning and pre-retirement seminars or consulting a financial planner may stimulate thoughts about retirement.

Studies in the United States revealed that one-third of people nearing retirement age have hardly thought about retirement (Lusardi, 1999). Consequently many people who reported that they think little about retirement expected to have few assets at retirement and are less likely to save for retirement (Lusardi, 1999). Lusardi (2001) reports that households who do not plan for retirement end up having much lower savings than households who have thought about retirement. Households who have taken steps toward retirement planning accumulate more wealth. Thus, planning continues to have an effect, even after accounting for many of the variables that can explain savings. Respondents that do not plan have about 100 percent less savings than respondents that have done some planning. Attitudes toward retirement and retirement plans are likely

to be reciprocal – by not preparing for the transition toward retirement, people are likely to view retirement less positively.

3.8.3 Future Orientation

Future orientation or concern for future consequences has been found to influence a range of behaviours involving inter-temporal choice (Webley and Nyhus, 2006). The ability to delay gratification and exercise self-control is often cited as an important determinant of individual saving and spending in the economic and economic psychological literature (Stolz, 1956; Ainslie, 1975; Wood, 1998; Warneryd, 1999, as cited in Webley and Nyhus, 2006). Future orientation is included in this study as financial and retirement planning is expectation regarding a future event in the form of savings is inherently related to the future (Lusardi, 2003). Saving for retirement is a long-term process, unless retirement is relatively close. Concern for future orientation or future consequences has been found to influence a range of other behaviours involving inter-temporal choice.

The planning process in preparing for a major life transition such as retirement should begin early in life because of the long term preparation needed (Atchley, 1981; Wehrenberg, 1984; Singleton, 1985). Most retirement planning focus on the material aspects of the transition from full time employment into retirement, and less attention to the psychological factors that are of increasing importance in the post-retirement period. Previous studies indicate that planning for retirement is positively related to satisfaction during retirement (Thompson, 1958; Glasmer, 1981). People generally

think more about the immediate future, instead of the distant future (Eson and Greenfeld, 1962; Fingerman and Perlmutter, 1995).

Lusardi (1999) reported that one-third of Americans aged 51-61 have not begun to think about their retirement and therefore approach retirement with very small wealth holdings. And again, Lusardi (2002b) found that one out of three of households nearing retirement report that they have hardly thought about retirement. Lusardi (1999) reported that thinking about retirement is an important predictor of wealth holdings of household nearing retirement. In examining the wealth holdings of households whose head is close to retirement, Lusardi (2001) finds that a large share of households have not thought about retirement or made any plans for retirement, contrary to the predictions of many traditional models of saving. The lack of planning results in low wealth holdings and also in portfolios that is less likely to contain high return assets, such as stocks. Other studies also show future orientation or time horizon is important for economic behaviour (Lea, Webley, and Walker, 1995; Webley and Nyhus, 2001 as cited in Webley and Nyhus, 2006).

People's preferences for the long-run are often in conflict with their short-run behaviour. When planning for the long term, people often express intentions to save. However, when asked about actual saving, people frequently admit to saving less than planned (Katona, 1975 as cited in Webley and Nyhus, 2006).

3.9 Expected Retirement Age

Studies of retirement preparedness typically assume that people will retire at a fixed age. While there are still standard retirement ages, increasingly there is flexibility over the actual retirement age. At the same time, it is also the case that retirement is no longer a strict discrete choice variable: some people are less than fully employed prior to normal retirement age; others continue to work after this age (Blake, 2004).

Earlier-than-expected retirement has been associated with adverse health and labour market shocks (Anderson, Burkhauser, and Quinn, 1986; Disney and Tanner, 1999; Laughran *et al.*, 2001). Barring injury or illness, the timing of retirement can be a matter of choice; workers can choose when to retire, just as they choose how much to save. The longer they work *ceteris paribus*, the more prepared for retirement they are likely to be. Working additional years and saving more of their income can greatly improve the retirees' financial status, even if they have not saved much until they near retirement. By extending their asset accumulation period, retirees are better able to replace pre-retirement income (Cole and Liebenberg, 2008).

In Malaysia, the retirement age for employees in the public sector has been extended to 60 years old effective from 2012 (from 58 years old). The Malaysian government has also raised the compulsory minimum retirement in the private sector to 60 years effective from January 2013 (from 55 years old) (Sukumaran, 2012). Because Malaysians can expect to live another 20 years or more after their previous retirement age at 55 years, each year they postpone retirement reduces their need for retirement

savings. The additional year gives them time to save more and earn returns on the assets they have already accumulated. As a result, Malaysians can make up for earlier shortfalls in retirement savings with surprisingly modest changes in behaviour such as adjusting their expected retirement age. Understanding the determinants of retirement age is crucial i.e.: (1) the financial resources available to the individual and household for retirement; (2) the marginal net earnings from an extra year of work and for retirement; and (3) the health of the individual nearing retirement.

So, are people retiring at a reasonable age? Do they save enough to afford the retirement ages they choose? The expected retirement age is important for two reasons: the older the retirement age, the more years an individual will have in the work force, thus increasing the probability of having adequate financial resources for retirement. Longer employment may increase the types and amounts of retirement benefits. Retiring at an older age increases the number of years to accumulate savings for retirement; at the same time it reduces the number of years spent in retirement. Therefore, the higher the expected retirement age, the higher the probability of having adequate financial resources for retirement.

However, without financial resources, retirement is not possible. Confidence in one's financial preparedness and savings encourages retirement at younger ages (Campione, 1987; Quinn, Burkhauser and Myers, 1990; Taylor and Shore, 1995; Henkens, 1999; Culter, 2001). While most people expect to retire, many are uncertain of the timing and form retirement will take (Ekerdt *et al.*, 2001) – as to people's expected, actual and preferred retirement age. Differences between expected and actual retirement ages may

arise due to unforeseen circumstances, such as job redundancy, poor health, realization that one is not financially prepared to retire, and mental state of health. In this study, the relation between preferred and expected retirement age will be examined with reference to retirement plans. Are individuals who plan financially for retirement more likely to have congruence in their preferred and planned retirement age? What types of financial plans relate to greater congruence? Individuals who anticipate retiring in the near future are more likely to be making financial preparations for retirement (Sorensen and Zarit, 1996; Ekerdt *et al.*, 2001). Consequently, people who are closer to retirement are likely to be thinking about and planning for retirement. Also, higher levels of financial planning allow individuals to expect to retire younger.

Some studies use age and work status as a proxy for retirement. The ability to retire at an age and in a manner of one's choosing depends on the individual's ability to retain or find alternative employment at older ages. Others assume a person is retired if their hours worked are less than a specific amount (Fisher *et al.*, 2005). In countries where social security provisions create strong incentives to retire, the retirement age may effectively be fixed, so that longer life spans lead to longer periods of retirement and greater pre-retirement savings (Bloom *et al.*, 2007). Gruber and Wise (1998) and Blondal and Scarpetta (1997) show that social security rules in OECD countries create powerful financial incentives to retire at a particular age and that many workers appear to respond to these incentives. Some countries allow workers to begin drawing public pensions at age 60 years or earlier, while others do not make old-age benefits available until much later (Burtless, 2004). In Taiwan, covered workers are eligible upon retirement to receive a lump sum payment based on their contributions to the social

security system; the rules set an incentive for workers not to extend their working careers past 65.

The term retirement age is used in a variety of ways (Diamond, 2002 as cited in Cremer and Pestieau, 2003). There is the age at which a worker is entitled to benefits labelled full or normal benefits. This is referred to as the normal age of retirement (65 for men in most European countries). There is also the age at which a worker is first eligible for some retirement benefits; this is called the early entitlement age (60 in most countries). Bodie *et al.* (1992) explored the relationship between optimal investing and the flexibility a person has in choosing how much to work. The theory suggests that the effect of labour supply flexibility on the optimal portfolio mix can be quite large (Viceira, 2001 as cited in Bodie, 2001). Bodie (2001) illustrates that the higher the fraction invested in stocks, the lower the expected retirement age and the higher the standard deviation. By increasing the proportion invested in stocks from 50 to 100 percent, the expected retirement age drops to 57, and the standard deviation rises to 4 years. Bodie (2001) suggests that the greater an individual's willingness to postpone retirement date, the higher the fraction he or she should invest in stocks.

Generally, the younger the retirement age, the shorter will be the period of employment and, consequently, the longer the period of retirement. Therefore, inflation has a greater impact on post-retirement income by reducing first the amount that can be saved and then drastically decreasing the retirement income derived from savings (England, 1988). Delaying retirement increases social security benefits and

may increase employer-provided benefits. Delayed retirement also means greater savings and more retirement income provided by savings.

Gough and Adami (2008) define an individual as retired if he or she define themselves as retired or if they have receive a public pension in the preceding 12 months combined with retirement from economic activity. The choice to consider self selection was made primarily to eliminate the effect of different effective ages in different countries. Bloom *et al.* (2007) suggest a rise in life expectancy increases saving which is based on the assumption of a fixed or inelastic retirement age, whereas in practice retirement age is endogenous and may be chosen. This raises the question of why people should respond to longer life spans by saving more rather than retiring later, with little effect on required savings (Deaton and Paxson, 2000 as cited by Bloom *et al.*, 2007). In countries with strong incentives to retire in order to get access to social security, the retirement age may be essentially fixed, so that longer life spans lead to greater saving. Burtless (2004) suggests that one explanation for workers' ignorance and for the reported absence of planning is that many people anticipate using simple rules of thumb to choose their retirement age. In individual cases, the consequences of a poor choice of retirement age can lead to very poor outcomes in old age.

Postponing retirement is frequently recommended to address numerous concerns related to well-being in old age including inadequate retirement savings. Delaying retirement increases lifetime earnings and the ability to support, and possibly increase current and future consumption (Butrica *et al.*, 2006). Delaying retirement help to

reduce the period of retirement that they need to finance while giving themselves more time to save and to earn returns on any assets they have already accumulated. Every year they continue to work reduces their likely period of retirement by several percent and increases the value of their assets by the annual rate of return, plus any additional saving. Butrica *et al.* (2004) estimates that people could increase their annual consumption at older ages by more than 25 percent by simply retiring at age 67 instead of age 62. Workers with DC pension plans will continue to build up the assets in their accounts through their own contributions, and possibly their employers' contributions. In the case of DB pension plan, however, additional work does not necessary translate into higher benefits. Instead, most DB plans penalize those who continue on the job after they qualify for full retirement benefits, reducing the lifetime benefits they receive from the plan (Butrica *et al.*, 2006).

It is hypothesised that confidence in the economy is a mediating factor for age cohort to be positively related towards higher expected retirement age. Current financial resources have a positive impact on the expected retirement age. The relationship between expected retirement age and financial plans is hypothesized to be reciprocal. There is a relationship between expected retirement age and financial planning preparation.

3.10 Financial Planning Outcomes

The decision of how much to save for retirement is a complex one for an individual; it requires collecting and processing information on several variables such as pensions,

retirement benefits, inflation, interest rates and asset returns, and to make predictions about future values of these variables. It would require some understanding of basic fundamental economic and financial concepts including compound interest, inflation, financial markets, mortality tables, among others (Lusardi, 2006).

In this study, a wide range of activities that prepare one financially for retirement is considered. Financial planning for retirement is categorized into: (1) preparatory activities, (2) plan initiation, and (3) asset accumulation. Preparatory activities include ways individuals obtain information about or make assessments of their retirement needs and the financial options available to them. Plan initiation refers to the age at which individuals begin making financial preparations for retirement. Asset accumulation encompasses the types of assets people anticipate they will have from the government, employers, and what they personally are accumulating for retirement.

3.10.1 Financial Preparatory Activities

This study is cross-sectional, and preparatory behaviours and asset accumulation are treated as correlated because the relationship is likely reciprocal. Three financial preparatory behaviours are considered in this study: assessing one's financial situation and setting financial goals; obtaining financial planning and retirement information by attending seminars, from articles, magazines, books, and internet sites; and participating in formal financial planning program. Only a small body of research has examined these preparatory behaviours and their predictors. The literature has shown that retirement planning is a powerful predictor of wealth accumulation. Those who

have not thought about retirement have much lower wealth holdings than those who thought about retirement (Lusardi, 1999, 2000; Ameriks, Caplin and Leahy, 2003). Lack of planning has important consequences for savings and portfolio choice: those who do not plan are less likely to invest in stocks and tax-favoured assets (Lusardi, 2003). Those who plan have more than double the wealth of those who have not done any retirement planning (Lusardi, 2003; Lusardi and Mitchell, 2007a). Both Bernheim and Garrett (1996) and Lusardi (2003) find positive causal effects between attending firm sponsored retirement planning seminars and retirement wealth. These studies report evidence that planning can foster higher savings (Hurst, 2004).

3.10.2 Plan Initiation

One reason people fail to plan for retirement may be because they are financially illiterate. Financial knowledge and planning are interrelated (Lusardi, 2006). This study will research an important research question as to when and at what age members of various cohorts initiate financial planning for retirement, and whether people today are beginning to make financial plans for retirement earlier in life than did previous cohorts, given the shift toward defined contribution plans (Quadagno, 1999).

3.10.3 Asset Accumulation

Throughout their working lives, individuals must choose how to allocate income between consumption and savings and how to allocate savings among the different

possible asset holdings (Dominitz and Hung, 2006). Asset accumulation refers to the accumulating of financial resources comprising of a combination of post-retirement income, housing wealth, and financial assets (stocks, bonds, private businesses, cash, etc.) An individual's assets (savings) at retirement are influenced by his choice of when to retire, labour and capital markets until retirement, expenditures until retirement, and expectations about income and expenditures following retirement (Haider and Stephens Jr., 2006). The evaluation of these assets prior to and throughout the retirement years is an important determinant of financial security and well-being in old age (Dominitz and Hung, 2006).

To understand the consequences of financial planning for retirement, it is essential to know how people save and allocate their savings across different types of assets, such as bank deposits, stocks, bonds, life insurances, and housing. Similarly, it matters how people manage their mortgage and consumer debt. Savings and portfolio choice decisions determine the amount of wealth that people hold at retirement; saving/dissaving and portfolio choices after retirement determine how such needs develop in the years after retirement (Soest and Arie Kapetyn, 2006). Soest and Arie Kapetyn (2006) postulates that: (a) households with large social security entitlements need less saving for retirement i.e. they expect a negative correlation between expected social security entitlements and amounts invested in most types of assets; and (b) social security benefits are a relatively safe source of retirement income for most households, implying that those with high social security expectations should hold more risky portfolios of financial and non-financial assets. Lusardi (2001) finds that

households who plan for retirement are more likely to hold stocks in their portfolios than households who did little or no planning.

How much resources are required in retirement is often expressed in terms of replacement rates of pre-retirement income. Most financial advisors adopt a pre-specified target replacement rate, proposing that households should ensure that retirement income exceeds 70 percent of pre-retirement income to finance consumption in retirement and therefore avoid a saving shortfall (McGill *et al.*, 2004; Munnell and Soto, 2005; Scholz and Seshadri, 2009). Moore and Mitchell (2000) extended this financial planning approach and determine a household's target replacement rate as a function of household earnings and current wealth, and demographics.

However, the replacement rate concept does account for several issues: the differing role of taxes for households at different points in their life-cycle; work-related expenses; financing consumption out of savings; the time horizon or survival curve of the household; the changing consumption profile with age; a household's use of its increased leisure in retirement which can either increase or decrease spending (Hurd and Rohwedder, 2006). Scholz and Seshadri (2009) posit that target replacement rates are less than 100 percent for three main reasons. First, upon retirement, households typically face lower taxes (than during their working years). Second, households typically save less in retirement (for retirement). Third, work-related expenses generally fall during retirement. Low income households are thought to need higher replacement rates than high income households because the reduction (relative to the

levels during the working years) in saving and taxes in retirement would be smaller for low-income individuals and families. However if future taxes are to rise, then the optimal target replacement rates for high-income households would need to be higher to reflect these expectations.

Earnings shocks can have a substantial effect on optimal replacement rate targets. A household that gets a positive late-in-career earnings shock would be expected to have replacement rates that are higher than the average of pre-retirement earnings. Conversely, a negative late-in-career shock could cause living standards to be revised downward in retirement. Medical expenses can also push up optimal target replacement rates and cause a substantial variation in the replacement rates prescribed.

The World Bank advocates a multi-pillar approach to provide for old age income security: a state social security, employer-sponsored pension, and income from private savings. However, this metaphor does not apply in Malaysia which does not have a social security program. In Malaysia, there are basically only two types of retirement benefit plans: (1) a government pension system which is essentially a DB scheme for the civil servants; and (2) a state-run provident fund, EPF which works on a DC formula for employees in the private sector. Only civil servants are covered by the government pension system under which a retiree receives a pension income based on 50 per cent of their last drawn salary. The DB pension for civil servants is a pay-as-you-go public pension scheme funded by the present generation for the previous, older generation. A public pension may improve overall welfare for the retirees as it alleviates financial concerns that people may have over the uncertainty of when they

are going to die. The private pension scheme is still in its infancy stage in Malaysia as the government has just launched the establishment of private retirement schemes in 2012 to provide employees and the self-employed with an additional avenue to save for their retirement (Lim, 2012).

3.10.3 (a) Pension

One institutional response to the difficulties faced by people in managing their own retirement income has been DB pension plans. Upon retirement, workers under a DB pension scheme receive a guaranteed pension payment based on their years of service and salary, for a fixed number of years or until death. The employee earns this lifelong annuity by working for the organisation for a certain minimum number of years. Plan participants do not worry about the risk of a shortfall, since this is the concern of the sponsor. But there is a global trend to switch to defined-contribution plans, which transfers the risk to the individuals, who may be least qualified to manage it. This switch to self-directed pension plans might therefore cause a decline in welfare, even when offset by other benefits of greater monetary value. Chan and Stevens (1999) find that individuals' planned retirement ages do respond to perceived changes in pensions.

3.10.3 (b) Employees Provident Fund (EPF)

The EPF works on a DC formula based on fixed percentages of monthly income contributed both by the employee and the employer. Benefits for retirees are linked directly to the contributions made by them and their employers during the period of

employment, and the compounded annual dividend declared by the EPF. As a result, relatively highly-paid workers who pay more into their EPF accounts would have higher retirement accumulations than those who earn less and consequently pay less into their EPF accounts. Upon reaching 50 years old, contributors are eligible and have the option to withdraw up to one third of their total balance in their EPF account. The balance of two third in their EPF account may be withdrawn in one lump sum upon reaching the age 55 years old. The majority of Malaysians relies on the little nest egg built up through mandatory contribution to the EPF which may no longer be enough. The situation can be more alarming for the self-employed who do not contribute to any statutory pension scheme and have not taken any prudent steps to provide for their golden years. It has been estimated that about 42 per cent of the working population does not make any contribution to the EPF, leaving them without a crucial source for retirement funds (see Chapter 1, 1.9.1).

3.10.3 (c) Personal Savings

Personal savings is an important component of retirement wealth. Personal saving, the amount (the residual after personal outlays or consumption) set aside by individuals out of income is essential to building retirement wealth. Wealth is a stock of assets, while the act of saving generates a flow of assets. Saving comes from deferring consumption out of earnings or out of other sources of income (Gist, 2009). Individuals save while working in order to finance their consumption and income shortfalls during retirement. By saving early, younger people can take advantage of the compounding over time that investment affords.

The life-cycle theory suggests that age has an impact on savings. The young and the retired dissave. A good starting point for calculating retirement saving is the standard life-cycle model in which consumption is flat over the life cycle and so is “smoothed” through retirement (Skinner, 2007). Initially, at the start of his working career, the individual consumes more than his income, and wealth becomes negative. Eventually income increases exceeding consumption give rise to saving and an increase in his wealth. Saving continues and wealth increases as he reaches middle age. The individual retires at maximum wealth. He will then consume until his wealth is exhausted.

In addition to saving for retirement, people may also save to protect themselves against uncertain events such as the loss of a job, a cut in pay, or for medical expenses. This precautionary saving may account for most of the saving among younger workers for whom earnings are low and retirement distant (Browning and Lusardi, 1996; Carroll, 1997). Precautionary savings is the additional wealth owned that results from the knowledge that future income is risky. Another positive motive for saving is to provide bequests or gifts. The literature on savings groups household savings motives into several categories such as:

- (1) Saving to provide resources for retirement - people save during their working years to finance their consumption after retirement. Life-cycle theory predicts that people save more in middle age and dissave in old age after retirement (Modigliani and Brumberg, 1954; Horioka, 2006).
- (2) Precautionary saving to finance unexpected losses of income – a hedge against uncertainty about the future; unemployment or sickness

(Zeldes, 1989a; Deaton, 1992; Carroll, 1994, 1997; Hubbard, Skinner, and Zeldes, 1995; Palumbo, 1999; Engen and Gruber, 2001; Kennickell and Lusardi, 2001); liquidity constraints also make households increase precautionary saving (Zeldes, 1989b).

- (3) Saving to smooth the availability of financial resources over time to maintain a more stable consumption profile (Carroll and Summers, 1989; Attanasio and Browning, 1995; Ogawa, 2006; Skinner, 2007).
- (4) Saving to finance expected large lifetime expenditure, that is “big-ticket” items (durable purchases), target savings (wedding, vacation, education); and
- (5) Saving for bequests – assets to bequeath to children and dependents. Bequests can be accidental because of the uncertainty regarding the date of death (Davies, 1981; Abel, 1985), strategic (Bernheim, Schleifer, and Summers, 1985), or reduced consumption (Borsch-Supan, and Stahl, 1991).

With the increased individual responsibility in retirement planning, a prospective retiree faces the following critical questions:

- (1) What is the level of pre-retirement income necessary to retire comfortably?
- (2) How much of income must he save in order to retire comfortably?
- (3) What should the asset composition be in the retirement portfolio?
- (4) When should he begin saving for retirement?
- (5) What is his expected retirement income horizon?

- (6) When he retire, should he manage his financial assets himself or engage professional financial advisers and planners?
- (7) If he decides to manage his own financial assets, what would be his withdrawal rate?

Bernheim (1992 as cited in Skinner, 2007) suggested that many soon-to-retire Baby Boomers was saving just one-third of what they needed to retire comfortably and are woefully unprepared for their post-retirement period. A study by Aon Consulting/Georgia State University in 2008 finds that replacement ratios of 78 to 85 percent of the pre-retirement income for salaries ranging from \$50,000 (81%) to \$90,000 (78%) is generally sufficient to sustain current life styles for American families. Salaries below \$50,000 require replacement ratios of up to 94 percent (Ervin *et al.*, 2009).

Some households that accumulate little may rely on help from relatives and friends for financial support. Individuals who perceive they have saved inadequately attribute this mainly to having insufficient income. Under a life-cycle model of consumption with a known income path, this is not unexpected (Hurd and Zissimopoulos, 2003). By some estimates, two-thirds of Americans who are retired and soon-to-retire have inadequate retirement wealth, as measured by personal savings, private pensions and social security (Wooff, 2007). The literature has identified several reasons why people might not save for their retirement, which has been discussed at length in Chapter 2. This study will examine the extent Malaysians make financial preparations and their

readiness for retirement, and the life-cycle factors affecting their financial planning for retirement.

3.10.3 (d) Inheritance Income

Intergenerational transfers of wealth have historically been an important source of wealth accumulation, and the “bequest motive” has been identified in the literature as one of the fundamental motives for saving (Kotlikoff and Summers, 1981; Dynan, Skinner and Zeldes, 2002). While inheritance can play an important role in savings and retirement wealth for the recipient, leaving a bequest is not always intentional. Bequests can be divided into intentional and unintentional bequests. Intentional bequests include those made for altruistic and strategic reasons. The altruistic motive is usually referred to as the “dynastic motive” i.e. extending to future generations. Strategic bequests refer to the price of being cared for by one’s children and family members in old age. Unintentional bequests are the result of excess precautionary savings from the need to prepare for unexpected major costs such as the possibility of substantial end-of-life medical and nursing home expenses (Kotlikoff, 1986). If such medical problems do not arise, a bequest will arise.

The rising life expectancy of those leaving bequests means wealth is being transferred to middle-aged or older people rather than the young. Expectations about inheritance will affect individuals’ savings rates throughout much of their working lives. If they overestimate the value of their inheritance, their ability to adequately recover and prepare for retirement may be limited. Holtz-Eakin *et al.* (1993 as cited in Sevak,

2002) find that individuals that receive large inheritances are more likely to leave the labour force. Gale and Scholz (1994) estimate that 80 percent of Americans' household wealth originates from intergenerational transfers – the retired and soon-to-retire may benefit handsomely from the frugality and savings of their parents that inheritances could significantly narrow or fill the shortfall between their personal savings and retirement needs.

3.10.3 (e) Post-Retirement Income

Household wealth at the time of retirement is a function of economic factors - income, demographics, health shocks, interest rates; and individual decision factors: saving propensities, portfolio allocation (Hurst, 2004). Decumulation of wealth after retirement is an essential part of the life-cycle theory. To show how well post-retirement income will allow retirees to maintain their standard of living, financial advisors and financial planners use replacement rates – the ratio of post-retirement income to pre-retirement earnings. Because some expenses are reduced or eliminated in retirement (work-related expenses and saving for retirement), financial advisers and financial planners generally advise that retirees need 70-80 percent of their pre-retirement earnings to maintain a comparable standard of living in retirement (Alford, Farnen and Schachet, 2004; Palmer *et. al.*, 2004). While replacement rates define income adequacy in terms of maintaining the retiree's prior standard of living, dollar thresholds define adequacy in terms of meeting the cost of basic necessities. Low-income retirees may find that replacing a specified portion of prior income may fall short of meeting basic needs (Reno and Lavery, 2007).

Retirees' other sources of post-retirement income are pensions and income from assets (interest, dividends, rental income from real estate). While most retirees no longer have income from work, it has become increasingly common for some retirees to take up new employment, in which case employment income become a major source of income in retirement. The trend of post-retirement employment is expected to continue among future cohorts of retirees, both for financial reasons and because of the changing definition of retirement. To measure post-retirement income adequacy, Engen *et al.* (2005) compare the levels of post-retirement income to poverty rates among the elderly. First, poverty has been defined in different ways; Gough and Adami (2008) define as poor those individuals having resources (typically income) below 50 or 60 percent of the median income. They used 60 percent of median national income as poverty threshold (as indicated by Eurostat guidelines; Duncan *et al.*, 1993; Whelan *et al.*, 2003 as cited in Gough and Adami, 2008). The median definition has the advantage over the mean value of providing a better estimation of income, by avoiding small numbers of very high incomes. Yaari (1965) suggested that a rational retiree lacking a bequest motive would annuitize all his assets to protect against outliving one's money. Davidoff *et al.* (2005) conclude that a retiree will fully annuitize financial wealth in the presence of a complete market if there is no bequest motive, when the net return on the annuity is greater than that of the reference asset.

3.10.3 (f) Housing Wealth

The house is the largest single asset in most retired households (Dushi and Webb, 2004). Housing is a unique asset in that it serves a dual purpose: first, there is a

consumption value from living in a home; second, housing is a store of wealth, from which the retiree can leave as a bequest. Previous studies in the US find that homeowners do not appear to be tapping into their housing wealth to support non-housing consumption in retirement. Retirees regard the house as “simply a place to live” and do not regard housing wealth as fungible wealth. The relationship between changes in household structure (widowhood, death, and nursing home entry) and housing sales has given rise to an “insurance” motive in housing wealth because these events are generally associated with changes in the household’s economic status (Walker, 2004). Most individuals value the option of remaining in their houses until declining health forces a move or a sale (Lusardi and Mitchell, 2006).

Housing is an important asset in many household portfolios, and many households have very little wealth holdings other than their home equity (Lusardi, 2001). There is a limited downsizing of housing after retirement (Venti and Wise, 1991; Sheiner and Weil, 1992 as cited in Lusardi, 2001). Several studies consider measures of wealth to include the equity in the primary residence (Moore and Mitchell, 1997; Gustman and Steinmeier, 1998; and Engen *et al.*, 2004). Venti and Wise (2001) find that retirees are unlikely to discontinue home ownership, and on average, increase their home equity when they move. However, Munnell and Soto (2005) do not consider home equity in the measurement of retirement wealth at all.

Households may tap into their housing equity in adverse circumstances such as widowhood or serious illness (Venti and Wise, 2004). Average housing equity tends to decline with age, particularly among older households (Hurd, 2003). Some financial

advisers and financial planners have noted how much retirees could save by “unlocking” their housing equity – either by downsizing through buying a smaller housing units or simply moving to a cheaper location. However, older people prefer to remain in their homes, and are reluctant to move even when they could increase their standard of living by selling their homes (Butrica *et al.*, 2005). In the US, reverse mortgages allow retirees to borrow money against housing equity, to be repaid upon death (Sun, Triest and Webb, 2006). Todate, very few people have taken advantage of these financial instruments (Butrica *et al.*, 2005). Home equity can still provide a bequest to children (Dyner, Skinner and Zeldes, 2002).

If the retirees “disregard” housing wealth when making consumption decisions in retirement, then the appropriate accounting of wealth for the elderly in models of saving and consumption should exclude housing wealth. And if housing wealth is incidental and the retirees die as homeowners, this would give rise to unintended bequest. The literature suggests that housing boom caused people to increase their borrowing, to extract equity from their homes, and to raise their level of consumption (Munnell and Soto, 2008). Studies in the US suggest a strong positive relationship between fluctuations in house values and consumption, that increases in housing wealth increases consumption (Skinner, 1996; Davis and Polumbo, 2001; Belsky and Prakken, 2004; Case, Quigler, and Shiller, 2005; and Carroll, Otsuka, and Slacalek, 2006). Similarly, Muellbauer and Murphy (1997) found that house price increases and financial innovation stimulated a consumption boom in the UK in the late 1980s. Homeowners and those who hold stocks and bonds have been found to have higher saving (Borowick, Burtless, and Sabelhaus, 1991; Avery and Kennickell, 1991;

Browning and Lusardi, 1996). Homeowners with children might be more likely to increase their borrowing from mortgages to pay for education and other expenses (Munnell and Soto, 2008).

3.11 Summary

The chapter has outlined the research questions and the hypotheses for the study. The chapter has discussed at length the formulation of the conceptual model based on life-cycle theories that posits that several life-cycle factors affect retirement orientations, expectations and plans, the relevant previous research and literature on each model component and the hypothesized relationships between the model components. The life-cycle factors affecting financial planning are summarised as they relate to these retirement outcomes. The following Chapter 4 will explain the research methodology adopted for the study.