UNIVERSITI TEKNOLOGI MARA

THE ACTUARIAL IMPLICATIONS OF INCREASING THE COMPULSORY RETIREMENT AGE ON THE GOVERNMENT PENSION SCHEME IN MALAYSIA

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Thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

Faculty of Computer Sciences and Mathematic

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Candidate's Declaration

I declare that the work in this thesis was carried out in accordance with the regulations of University Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

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ABSTRACT

Many researches on life expectancy have been done, and for most countries it is shown to be increasing. Since the life expectancy at a particular age tends to increase over time for male and female, the mortality risk tends to be lighter over time. Therefore it is expected that pensioners will live longer and thereby cause an increase in pension liabilities to the government. Many countries are now facing a problem of an increase in pension costs, and are looking for solutions to this problem. The most common solutions used are to equalize the retirement age for male and female and to raise the retirement age up to 65 years old.

On 1st October 2001, the Malaysia government had extended the compulsory retirement age from 55 to 56 years old with an option to retire earlier. And up to date, the Malaysia government had again extended the compulsory retirement age to 58 years old with an option to retire earlier, which was enforced from 1st July 2008.

The main objective of the study is to investigate empirically the actuarial implications in the long term and in the year to year to the government as the compulsory retirement age increases from 55 to 60 years with an option to retire earlier in phases of one year. In order to investigate empirically the actuarial implications in the long term, the capitalised future lifetime costs (or pension liabilities to the government) were estimated as the age of compulsory retirement increases. And to investigate empirically the actuarial implications in the year to year, the actuarial cash flow of annual pensions as the age of compulsory retirement increases until year 2030 were studied.

After all the analysis has been made, we concluded that the compulsory retirement age should be increased in the future in order to decrease the government liabilities as the number of pensioner entering the pension scheme is increasing every year and as the life expectancy of Malaysian population increased year by year.

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