CHAPTER I

INTRODUCTION

1.1. Background

Historically, Indonesia has not always experienced an increase of national savings in past five decades. Prior to 1970, the saving rate was, on average, lower than 10 percent and even hit the lowest point at -4.8% in 1966 due to monetary crisis. After 1970, the savings rate started to rise. Aside from the classical factors such as income and interest rate, credit to this performance is variously given to the demographic factors (Modigliani & Ando, 1957). One of the most important demographic factors is dependency ratio. Dependency ratio can be defined as the ratio of nonworking population younger than 15 and older than 64 years old to working population between 15 and 64 years old. Furthermore, the dependency ratio can be disaggregated into two components; youth-age dependency ratio and old-age dependency ratio.

Theoretically, the analysis of saving behavior and dependency ratio is addressed by the Life Cycle Hypothesis (LCH) developed by Modigliani & Brumberg (1954). According to the simple life-cycle model of consumer behavior, young individuals do consumption but they have no income and depend on their parents that make them dissaving. In addition, elderly people after they retire, they do not save their money any more but run down the savings they accumulated during the previous working years. Increasing the number of the youth and elders, thus, leads to a decrease in the total saving rate.

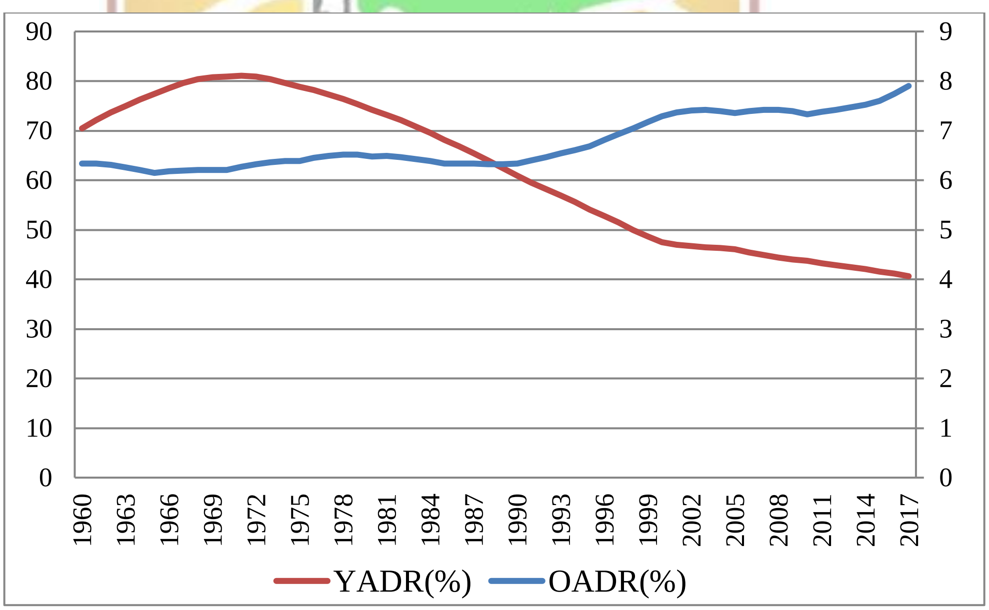
Exploring in more detail at savings and dependency ratio, although the theory apparently stated a negative relationship between dependency ratio and savings rate, it has been becoming puzzle and leading to a long debate about whether or not, the dependency ratio really impedes savings rate of a country as every country have different condition of savings and its dependency ratio. Some researches and studies in different countries use different methods to vary the findings of the relationship between savings rate and the demographic dependency ratio including Horioka (1997), Escobar and Cardenas (1998), Thornton (2001), Serres & Pelgrin (2003), and Modigliani and Cao (2004) who found the same relation with Life-Cycle Theory (LCH). They mention that as the dependency ratio increases, there is more burden such higher expenditure which hampers savings. In addition, by diversifying old and young dependency, Coale & Hoover (1958) argue that higher ratio of the youth in population will lead to a lower saving rate. Besides, Higgins and Williamson (1997) explained the finding which addressed lower saving when the old dependency ratio is higher.

However, other studies address the contrast finding in which the dependency ratio’s effect on savings is apparently insignificant or even positive. Jorgensen (2011) and Horioka C. Y.(1991) find both old and youth dependency insignificantly reduce savings ratio. Likewise, Tang (2007) found significantly positive relationship between young and old dependency and savings. On the other hand, Song & Yuan, (2013) find the relationship between old dependency and savings is significantly positive while youth dependency and savings have significant negative relationship in the short run but insignificant negative in the long-run.

With regard to the dependency ratio, overall, Indonesia indicates an increase trend of the ratio of elder people to working population while for youth dependency ratio, it dropped. The graph below captures the growth of old-age dependency ratio and youth dependency ratio in Indonesia over a 57 years period between 1960 and 2017.

Figure 1.1

Youth-Age and Old-Age Dependency Ratio in Indonesia



Source: World Bank

Looking more closely at the trend for youth age-dependency ratio, it can be seen that at the start of the period, the ratio of young people to working population began at around 70.5%. Then the percentage increased sharply and reached a peek at 81.07 in 1971 before it fell considerably to 46% in 2005. This was followed by a slight decrease until it hit the lowest point at 40.6% in 2017.

In contrast, it is obvious that the old-age dependency ratio showed a slight decrease from 6.3% in 1960 to 6.1% in 1965. However, it was going as high as 6.2% before continue increasing gradually to 6.5% in 1979. On the other hand, the ratio of elder people showed a sharp growth to 7 retirees (or individuals aged 65 or over) for every 100 in 2003. An interesting fact is that even though the ratio fell a little until 7.3% in 2005, it stabilized at 7.4% in 2008. Yet, the ratio kept falling slowly to 7.3% in 2010 before increasing and reaching a peak at 7.9% in 2017.

Regardless the decrease trend of youth-age dependency ratio, otherwise, the ratio of old-age dependency raises over time in which it indicates that the country is in the threshold of population aging. Population aging is defined as an increasing proportion of elder people in the total population wherein it is going to take over the major occupation in Indonesia's demographic scenario during the next few decades. On one side, when proportion of elder people increase, it suggests that Indonesia will go through fundamental changing of demographic. This apparently will affect the labor market wherein the labor supply is going to decrease. At the end, population aging that refers to an increase of old-age dependency ratio will impact other economic aspects including savings. Thus, through this study, this paper mainly examines and focuses whether or not demographic factors, especially the old age dependency ratio really impedes the savings rate in Indonesia and analyzes the economic burden due to increasing old age dependency ratio by using time series data during 1960-2017.

The title of this study is "**Will Old-Age Dependency Ratio Impede Savings? The Case of Indonesia**"

1.2 Research Problem

Savings behavior of a country is also determined by demographic factors. One of demographic factors is dependency ratio. This paper will mainly focus on old age dependency ratio as it experienced rapid increase since past five decades. As continuously studied by numerous papers, the effect of old dependency ratio on savings rate still becomes puzzle. Hence, it is important to examine the effect of old dependency ratio on savings rate. The Research questions are as follows,

1. What is the effect of old-age dependency ratio on savings rate in Indonesia?
2. What is the effect of gross domestic product on savings rate in Indonesia?
3. What is the effect of interest rates on savings rate in Indonesia?
4. What is the policy implication that government can take?

1.3. Research Objective

Based on the research problem, the writer sets the objectives of this research as follows:

1. To analyze the effect of old-age dependency ratio on savings rate in Indonesia.
2. To analyze the effect of gross domestic product on savings rate in Indonesia
3. To analyze the effect of interest rate on savings rate in Indonesia
4. To propose policies to optimize the effect of old-age dependency ratio on savings rate.

1.4 Research Advantages

1. In this research, we can see the outlook of old-age dependency ratio effect on savings rate in Indonesia and suggest alternative policies to utilize the old-dependency ratio.
2. The results of this study are expected to be useful as an input to the Central Local Government in aiming to provide retirement decisions for elder people.
3. As a reference for further research.

1.5. The Structure of Writing

This research paper is divided into six chapters as follows:

Chapter I: Introduction

There are six parts in this chapter, the first is the background which gives an introduction about the topic discussed in this research paper and general description about the theory, the puzzle of the effect of old-age dependency ratio on savings rate, and conditions of savings rate and old-age dependency ratio. The next parts are research problem, research objective, research advantage, and systematic writing.

Chapter II: Theoretical Framework and Literature Review

This chapter discusses the theoretical approach and literature review which have relation with the effect of dependency ratio on savings rate.

Chapter III: Research Methodology

This chapter describes the model used in this research paper, the source of the data and tools used in collecting the data, variables definition, and development of variables correlation.

Chapter IV: General Overview

This chapter illustrates the outlook of current and past situation of related variables.

Chapter V: Empirical Result and Discussion

Explain about the output of the research and the analysis from the processed of data.

Chapter V: Conclusion and Recommendation