### Problem introduction

The life expectancy of people all over the world has significantly increased over the past decades. This increase can be explained by a number of reasons, but most importantly it is due three reasons. These reasons are better food production and distribution, improvement in public health and better medical technology [1]. According to a study in 188 countries, in the last two decades the life expectancy is especially increased due to lower death rates caused by infectious and cardiovascular diseases [2].

The increase in life expectancy has caused discussions about the age of retirement all over the world. In the countries that are part of the Organisation for Economic Co-operation and Development (OECD), men retire at an average age of 65, for women this is 63.5 [3].

In 2013 the Dutch government decided to start increasing the age of retirement periodically [4]. The prime minister of Canada decided in 2016 to keep the retirement age at 65, but the discussion in still going on [5].

Reason for this discussion is that an increase of life expectancy is said to have significant social and economic consequences. In this report the impact of the increased life expectancy is discussed based on data for 8 variables. All data is provided by the World Bank Open Data.

### Relevance for OECD

This subject is of particular interest to the strategic counsellor of the OECD for a number of reasons. Firstly, the increase of life expectancy is especially relevant in the member states of this organization. Also, the economic consequences are highly relevant towards the OECD, since its main interest is economic development. Lastly, the OECD has stated its interest in the 7 societal challenges set by the UN. This problem is part of the Health and Demographic Change & Wellbeing challenge. The fact that the topic of ageing is explicitly mentioned in the global issue report of the United Nations, strengthen this statement [6].

### Datasets description (Can be further explained by content, number of years etc etc)

The dataset consists of 8 variables, in this section each of them is explained. Also, the reason for selection further elaborated. In general each variable is analysed for 50 different countries.

1. Life Expectancy

Life expectancy is defined as the average time an organism is expected to live, measured from the moment of birth. This variable is chosen, since it is believed to be the cause of our problem.

1. Cost of Healthcare

Cost of healthcare are measured as the average cost of healthcare per person in a country. This variable is chosen because older people, on average, are more expensive in terms of healthcare. Reasons for this fact are for instance higher probability on chronic diseases such as Alzheimer of Dementia, but also increase chance on cancer or heart problems. Another contributing factor. Is the number of people in nursing houses or assisted living centres.

1. Cost of Living

Cost of living is defined as the minimum amount of money that is needed for a certain standard of living. This variable is chosen because cost of living is considered an economic indicator relevant to our problem. This is due to the fact that cost of living tends to increase if total societal costs increase. Also, for instance a high cost of living an indicator that a further increase of costs may be problematic.

1. Population

Population is the number of people living in a country. This variable is included to be able to relate to other variables such as GDP.

1. Gross domestic product (GDP)

The gross domestic product is a measure of total market value is a country. Nominal GDP is chosen, because this is regularly considered a suitable indicator of economic performance.

1. Gini Index

The Gini index is a statistical measure to indicate economic inequality. This variable is chosen because of its relevance to the economic situation in a given country. Higher inequality means different impact of the described problem on society.

1. Age Dependency; young / 8. Age Dependency; old

Age Dependency ratio is the ratio between those in the labour force and those that are not in the labour force. The dependent part ‘young’ is the part of ages 0:16, that is considered too young to be working. The dependent part ‘old’, is the number of people above the age of retirement. The reason to include this variable is that it can be used as a measure of the pressure on the productive part of the population.

### References

[1] https://www.seguetech.com/the-impact-of-the-increase-in-life-expectancy/

[2] <http://www.healthdata.org/news-release/life-expectancy-increases-globally-death-toll-falls-major-diseases>

[3] http://www.oecd.org/els/emp/average-effective-age-of-retirement.htm

[4] <https://www.rijksoverheid.nl/onderwerpen/algemene-ouderdomswet-aow/vraag-en-antwoord/waarom-gaat-de-aow-leeftijd-omhoog>

[5] https://www.thestar.com/news/canada/2016/03/17/canadians-retirement-age-staying-at-65-trudeau.html

[6] http://www.un.org/en/sections/issues-depth/ageing/index.html