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Demographic change and intergenerational justice in Europe

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Abstract

Over the coming decades, Europe is one of the first parts of the world to face a gradual decline of its population which in turn will lead to a sustained process of aging in society. Though some European countries are more affected than others, this phenomenon is shared by most of the post-industrial societies of Western Europe. Among other economic and social effects, these radical changes will put the social security systems to a decisive test and have already kindled a controversial debate on how to address these changes politically.

By examining the impact of the demographic shift on both society and the economy, this thesis aims at contributing to the debate. The analysis places particular focus on the pay-as-you-go pension system which is the most common type of state-run systems. By transferring an ever increasing fiscal burden to future generations, this system is facing collapse. The “intergenerational contract” has become a mere fiction at a time when beneficiaries by far outnumber those who feed into the system. In search of guidelines for intergenerational justice and equality for sustainable social security in the future, the theory of justice by John Rawls is being consulted. Rawls was among the first to present a systematic discussion of obligations in between generations, His points are remarkably up-to-date and offer crucial insights that call for fundamental policy changes.

Key words: demography; Europe; pay-as-you-go; intergenerational contract; Rawls, John

Table of contents

1 Introduction	1
2 The demographic shift	4
2.1 A short introduction into demography	4
2.2 Demographic development in Europe – The facts	6
2.3 Global demographic development – Setting Europe into context	10
2.4 Résumé	11
3 Boon or burden? – The challenge of population ageing	13
3.1 Societal challenges	13
3.2 Economic challenges	15
4 The pay-as-you-go pension system and the intergenerational contract in demographic context	17
4.1 The pay-as-you-go system of social insurance	18
4.2 The pay-as-you-go system and intergenerational justice – Where is the problem?	19
4.2.1 John Rawls’ ‘A Theory of Justice’ – A just saving principle	22
4.2.2 Justice as fairness	24
5 Demography & intergenerational justice – Policy implications for future social security	28
6 Conclusion	30
7 References	32

Abbreviations & acronyms

EU European Union

NRR Net Reproduction Ratio

OECD Organisation for Economic Cooperation and Development

PAYGO Pay-as-you-go

TFR Total Fertility Rate

UN United Nations

1. Introduction

“Two forces — declining birth rates and rising life expectancies — are interacting to produce a dramatic change in the size and age structure of Europe’s population.[...] As a result, the average ratio of persons in retirement compared with those of the present working age in Europe will double from 24 % today to almost 50 % in 2050.”
(Wim Kok 2004: 14)

This short quotation puts the main problems of Europe’s demographic development in a nutshell. In short, the major shifts in population structure of the industrialised European states consist of increasing life expectancy in combination with declining birth rates: Europeans live longer and get fewer children (Willmore 2004; Kok 2004; Lindh 2003). Even it is a predictable development, the trend towards an aging and declining population was not paid much attention for decades. Quite the contrary, the explosion of global population was seen as the ‘demographic bogey’ of the 20th century (cf. The Economist, 2006).¹ But, with the beginning of the new century and millennium, the opposite – the dawn of demographic decline – is increasingly feared and discussed. The effects of the major shifts in population structure especially in the developed and post-industrialised countries will have huge impact on economy, particularly on the social security systems, like pensions, health care, but will also influence society and culture in general.

This paper focuses on the population change caused by demography within the highly developed industrialised states of Europe, and the effects on welfare states’ social security system, in particular European social security on pay-as-you-go basis. While more or less the whole welfare state system we currently are used to bases on a balanced demographic population structure, the change from the stable population pyramid to a ‘mushroom’ or ‘Christmas tree’ especially challenges the widespread pay-as-you-go social security system. Here, state benefits to retirees are paid out of contributions from current workers. As soon as unbalance occurs, and a declining number of working people have to support and pay for an

¹ Robert McNamara – president of the World Bank in the 1970s - compared the threat of unmanageable population pressures with the dangers of a nuclear war. Paul Ehrlich wrote a bestseller with the title ‘*The Population Bomb*’. The immense increase of population especially in the developing countries even led to stringent birth control in some countries, notably in the People’s Republic of China.

increasing number of old and depending people, this system gets into serious trouble.

The paper is structured in four major parts as follows:

In the first part, an outline of the current and future demographic development within Europe is given. As is later discussed, the crisis of the social security system is first and foremost a demographic problem, it is important to give the background of the demographic crisis, to describe what is actually changing and how these changes effect on society and economy. After the description of the European demographic development, the worldwide demographic trend is shortly illustrated, in order to set Europe into the context of the global demographic development.

In the following part, the challenges of the demographic shift are discussed. What are the challenges the development of the European population implicates? Is the demographic shift a 'ticking time bomb' with unpredictable consequences? How deep the impact of the changing demographic structure will be? To answer these questions, it is focused on how the population development affects society, as well as economy.

The next part of the paper examines the effects on the state-run pay-as-you-go pension system of continental Europe, and thereby attaches special importance to the intergenerational contract, the pay-as-you-go system is basing on. What are the consequences of a ageing society for the pension system? What would be a just and equal solution for current and future generations? Generally, how is social welfare for retired people possible in the future?

In order to discuss the frame for a just intergenerational contract, basing on the principle of equity between the generations, it is referred to 'A Theory of Justice' written by John Rawls. The political philosopher Rawls was among the first to present a systematic discussion of obligations in between generations, His points are remarkably up-to-date and offer crucial insights that call for fundamental policy changes.

Basing on the points outlined in the paper before, the fourth part provides some proposals for

The paper thereby concentrates on post-industrial Europe. Even there are glaring differences an diversity between the single European countries and regions concerning the demographic development, Europe as a whole is a vivid and concrete example of the population change within an accumulation of post-industrialised welfare states. The demographic development of Europe as a world

region is an indicative of how the population in a lot of other – today maybe still developing – regions will be in future. The focus is on Europe, as population ageing is a European problem – and not only a problem of single member states.

As demography is a very broad field – changes in population structure have impact on various policy fields, influences society, politics and economy - , and in times of such a dramatic demographic change the developed states are facing, there would be a lot to write about this field: about the social, political and economic reasons for declining birth rates, about the effects on society, economy, etc. Nevertheless, this paper is not an attempt to explain the reasons why less children are born (even that would be a very interesting, but highly complex sociological topic). As Europe's population decline in the next decades is a matter of fact, or so to say a 'destiny', the paper rather focuses on how this shift affects social security and the intergenerational contract. What could be possible measures to perpetuate social security under the changing conditions? As Lüth says "coping with the fiscal consequences of population ageing is generally perceived as one of the central challenges of the decades to come" (Lüth 2003: 178) – the paper wants to contribute to the discussion about the consequences and possible policy-measures.

2. The demographic shift

2.1 A short introduction into demography

Everywhere, the population of a country, of a region or community always changes. This is a natural process, in consequence of births, deaths, immigration and migration within a country or between different countries. Thereby, demography is the – in fact very old² - science dealing with population development and dynamics. Out of the four major factors conditioning the structure of a population – birth rate³;, death rate⁴, migration and immigration - the birth rate is the most important one, as it influences the three others. Every person once born in the end will die and normally moves during life – so to say immigrates or migrates - from one region or country to another (Birg 2004: 4). Summing up all four factors for a certain period of time, the result can be positive in case of increasing population, negative in case of decreasing population, or zero when the population stagnates.

Modern demographic science is characterised by interdisciplinary collaboration of a number of subject areas and disciplines, particularly economy, sociology, statistics, mathematics, geography, medicine, biology, historical demography, and ecology. This interdisciplinary basis points out the value and admission of demography for various other scientific fields. Nevertheless, for a long time demographers themselves criticised the often weak and unsteady approach, method and development of demography in the past (cf. eg. McNicoll 1992, Kertzer 1995, Riley / McCarthy 2003)⁵ and resumed that “demography is not making the contributions it might to understanding of social processes or to the larger issues facing the world today” (McNicoll 1992). Thereby demography is a “powerful field” (Riley/McCarthy 2003: 3). It deals with issues essential especially to social science. Different from social and economic processes, which

² Demography’s commencement goes back to Greek and Roman antiquity (like a lot of other scientific areas do).

³ The so called crude birth rate numbers the live born children per 1000 inhabitants.

⁴ The annual number of deaths per 1000 people.

⁵ According to them demography often does not give satisfactory answers to the global population development and does not sufficiently uses its interdisciplinary basis.

generally are quite diffuse and difficult to forecast, as they normally are extremely dependent on the specific historical situation, demography is a “fairly reliable” projection (Lindh 2003: 38; cf. also Birg 2000). Even fertility and sometimes also migration are difficult to forecast⁶, demographers are able to give relatively reliable projections for the next 50 years or even more. This capability reasons in the phenomena of demographic ‘sluggishness’: demography has its own characteristic momentum⁷. When the birth rate changes (because of altering reproductive behaviour, and *not* because the number of woman in the for the birth rate important age between 15 and 45 is shifting), that is followed by further decline of birth, even if the birth rate later stabilises again.⁸ This dynamic of population shrinkage⁹ leads to a downward spiral, and points out the effect of the declining number of potential parents. It is exactly this effect which can be very well predicted by demographic science. Thus, the common rule that predictions are the less reliable the more they refer to the future is not entirely valid for demography (cf. Birg 2000).

Consequently, demography has quite huge potential and projections made are much more reliable than most economic or other social forecasts, what generally opens the opportunity of improvement of future projections on economic and social dynamics (cf. Lindh 2003: 46).¹⁰ Coming to this conclusion also can be seen as one of the reasons for the revaluation of demographic science. Being confronted with the drastic and fast changes in population, and recognising the potential of demographic forecast, as well as its contribution to economic and social projections, society, media, experts, scientists and especially politicians increasingly attended to demography. After a long period of inexcusable disregard of demographers research and predictions, demography now plays an increasingly important role in today’s policy making.

In the following part, Europe’s demographic development is outlined and set into global context. Thereby, specific terms of description are used. Characteristic for demographic science is the partially very technical language. What on the one

⁶ Also mortality is not that easy to forecast, but behaves more regular in modern societies (Lindh 2003: 38).

⁷ ‘population momentum’ or ‘population-lag effect’

⁸ That is because of the fact, that women who could have a baby are lacking in the next generation – the unborn children of one generation do not have succession themselves.

⁹ Or growth, when it is the other way around and more children are born so that population is growing.

¹⁰ Thomas Lindh here sayd: “Very simple regression models perform as well or better than many much more structural models or atheoretical time series models. Moreover, thinking in terms of changing population structures is also a way to new insights regarding the development of the economy” (Lindh 2003: 46).

hand might first appear a bit peculiar when talking about people in these technical and economical terms on the other hand helps to specify the demographic change. Thus, a list with definitions of the used terms is given here:

- The *(crude) birth rate* describes the annual number of live births per 1000 people
- The *total fertility rate* (TFR) stands for the annual number of live born children per 1000 women of childbearing age (normally from 15 to 45, sometimes from 15 to 49)
- The *expectation of life* or *life expectancy* describes the number of years which an individual at a given age can expect to live at present mortality levels
- The *median age* is the average age of a population which divides it in a ‘younger’ and an ‘older’ half
- The *total dependency-ratio*, which measures the potential social support needs by setting all persons under 15 and those aged 65 and older in percent of the population in the working ages 15-64¹¹

2.2 Demographic development in Europe – The facts¹²

After centuries of population growth¹³, the second half of the 20th century can be regarded as a demographic watershed. Still, the global population is growing, but already less fast than before. The highly developed industrialised states – in particular Europe and Japan – are the first world-regions, where population started to decline. Globally, the total fertility rate (TFR) fell from 5.0 children per woman in 1950-1955 to 2.7 in 2000-2005. In Europe the average TFR fell from 2.7 in

¹¹ Basing on the notion, that all people younger than 15 and all people older than 65 are somehow or other dependent on the working population. It is assumed that those in the working ages directly or indirectly provide support to the dependent ones – within families, by the State, through religious or communal institutions etc.

¹² For the facts mentioned in this chapter I mostly refer to figures and statistics from UN 2003 and Sinn 2005.

¹³ In the beginning, world population grew relatively slow from 200 to 400 Million in the year 0 to 1 Milliard in 1804/05. Then, growth accelerated fast: the second milliard was reached after 123 years in 1926/27, for the third milliard in 1960 only 33 years were needed. The forth milliard was reached in 1974 (14 years), the fifth in 1987 (13 years), the sixth in 1999 (12 years). From 1999 on the span to the next milliard expanding again. Between 1965 – 1970 the world population growth rate reached its maximum with 2 %; from then on, the growth rate falls, today between 2000 – 2005 it was 1,2 % per year, with downward drift (cf. Birg 2004: 5).

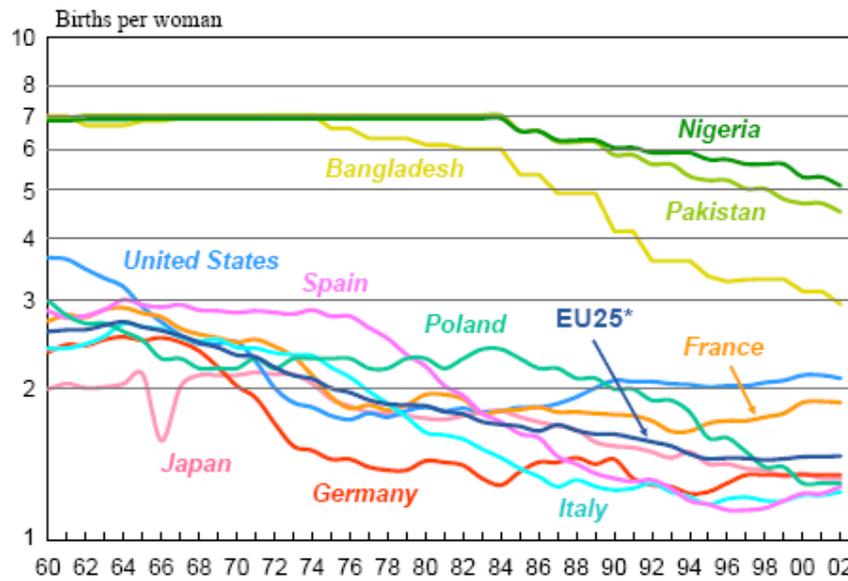
1950-1955 to 1.3 in 2000-2005 (United Nations 2002). While the population in Africa and Asia is still growing, the population of the EU-25 is expected to shrink in the coming decades.

While the TRF decreases, at the same time, life expectancy in the developed countries – especially in Europe - immensely increases. At the beginning of the 19th century women had an expectancy of life of 40 years. Now, at the beginning of the 21st century, the average life expectancy for woman already is on 81 years; for men it grew from 35 to 76. Thus, life expectancy in general within 200 years more than doubled, and today is particularly high in Europe. Europe - after Japan - is the region with the highest life expectancy and European Life expectancy is increasing (currently, about one more year per every eight years). A region with an increasing life expectancy one would normally expect to grow, as more people are alive at the same time. But far from it, projections forecast that Europe's population already in a few years will start to decline¹⁴ (Sinn 2005: 4/5). In 2005 the EU25 had a population of 459.5 million people – according to Eurostat projections (Eurostat 2005) population will increase by around 10 million until 2025 to 470.1 million, actually mainly due to (assumed) net migration and not to own reproduction, as the number of deaths will outnumber the number of births already from 2010 on¹⁵. After 2025 population will gradually fall and in 2050 will reach 449.8 million, what means more than 20 million inhabitants less than in 2025.

¹⁴ Different from the US population, which is expected to increase about 124 million (with an annual net immigration of about 1.1 million).

¹⁵ That means: without further migration, Europe's population would already decrease in 2010.

Figure 1: Development of fertility rates in international comparison (selected countries) 1960 - 2002, (Sinn 2005)



Legend: Fertility rate defined as the average number of births per woman (age specific total fertility rate). *Average: weighted with population sizes.
Source: World Bank, World Development Indicators 2004, Ifo Institute calculations.

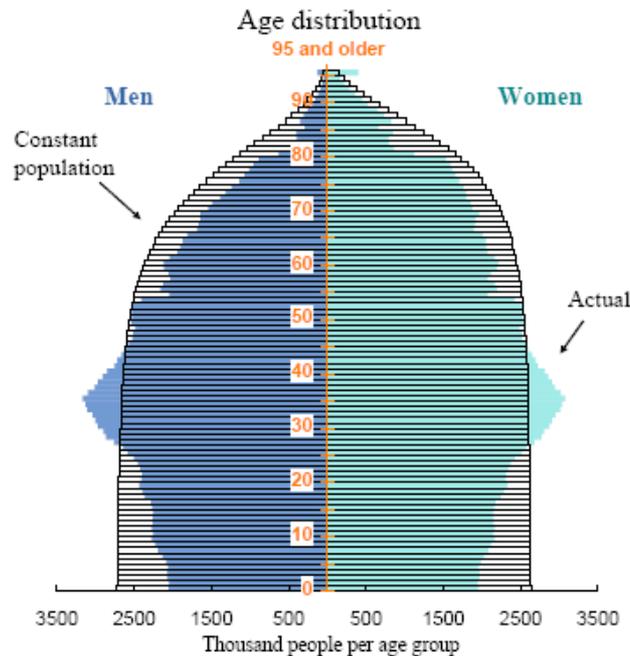
The particularly evident reason for the rapidly ageing European population is the decreasing fertility rate (see fig. 1) – it can be regarded as the primary determinant of populations’ greying. Practically in all industrialised countries the total fertility rate is below the replacement level of 2.1 children per woman.¹⁶ The decline of the European birth rates already began at the end of the 19th century (together with beginning industrialisation, gradually improved living standards and the invention of modern contraception methods). The dramatic change of the number of birth is reflected in the European population pyramid – which actually is no longer shaped like a pyramid (see fig. 2). Particularly significant is the *cohort*¹⁷ of people born around 1965: the so-called baby boomers. Today – in 2006 – they are around 40 years old and parallel to forming the biggest cluster of the ‘population Christmas tree’ (Sinn 2005: 8), they form the biggest group of the currently productively working people in Europe, providing dynamic and productivity on the labour market and economy and, of course, paying the pensions for the current retirees. But – and this is the main problem (Sinn 2005: 9) – when the baby boomers themselves will retire at the latest in approximately 30 years (when they will be around 70 years old), they will not be followed by an

¹⁶ The average total fertility rate in the less developed regions is expected to drop from currently 2.9 children per woman to 2.4 by 2025-2030, and to 2.2 by 2045-2050. In the more developed regions projections forecast that the TFR rises again from current 1.5 children per woman to 1.7 (2025-2030) and 1.9 (2045-2050). In the least developed countries are expected to have a extremely sharp reduction from current 5.2 children, to 3.6 (2025-2030) and 2.5 (2045-2050).

¹⁷ age-group of one specific year

equally big cohort. Thus, there will not be enough working-aged people for making reasonable contributions to the baby boomers' pension.

Figure 2: Comparison of actual and constant population, EU15, 2000 (Sinn 2005)



Equivalent constant population with equal number of persons in the age group 25-65.
Source: Eurostat, Ifo Institute calculations.

The combination of decreasing TFR - or so to say less born children -, and increasing life expectancy leads to the main demographic problem of the coming decades: population's 'greying' (cf. Peterson 2001; Birg 2004; Disney 1998; Jackson 1996). Not only that population will decline, but the 'remaining' population will be much older than it is now and have ever been before¹⁸. In fact, up to 2050, Japan and Europe will be the world regions with the most pronounced ageing trends. These two regions are pointing the way for the future development of more or less all other world regions, even for the demographically still relatively young less developed countries. In the coming fifty years the part of the European population aged 65 years and older is expected to increase by 40 million, meanwhile the working-age population (people between 15 years and 64 years old)¹⁹ will fall by 100 million (Willmore 2004: 1). Thereby, the most rapidly growing ageing group is that aged 80 years and more, the 'oldest-old'.

¹⁸ The average age of the population will rise.

¹⁹ Whereby a lot of people retire much earlier than with 65 years, and especially young people have often difficulties to find a job – thus, the people really productively working within this group often is even smaller.

Consequently, this enormously changes the *total dependency-ratio*, as well as the *median age*. While the median age in Europe was at 29.2 in 1950, and 37.7 in 2000, it will change to 45.4 in 2025 and 49.5 in 2050²⁰ (UN 2003) – for comparison: the expected median age for the US in 2025 is 39.7 and 41.0 in 2050. Eastern enlargement in 2004 thereby did not change anything to positive for the EU: though today's median age in Eastern Europe is below the median age of the other EU member states, it rises much faster in Eastern Europe (it is expected to be at 49.6 in 2050).

Even Europe in this paper is examined as one single 'unit', it should be mentioned that there are of course huge differences in the demographic development between the single European countries. Nevertheless, so huge the differences of the exact form of demographic change within the single European states, so distinct is the main demographic characteristic of Europe as a whole: Europe as a region forms a unit of several highly developed states – and these states have in common that they will face massive population decline and population ageing in the coming decades (Birg 2004).

To set Europe's population development into context, the next paragraph shortly outlines the global demographic development.

2.3 Global demographic development – Setting Europe into context

Globally, the demographic development appears to be quite different from the negative demographic trend observed in Europe. World population will continue to grow, at least for the next coming 80 years.²¹ For 2050 the UN forecasts a global population of 9 billion. Even world population is still growing, there is a global trend towards falling birth rates and population ageing. Today, the developing countries demographically are still young compared to the developed regions: the median age of the developed regions in 2000 was 37.4 and will rise to

²⁰ Whereby in 2050 Spain (55.2), Italy (54.1), Austria (53.7), Switzerland (52.0), Sweden (51.2), and Germany (50.9) with the highest median ages will be among 'the oldest' in Europe (UN 2003).

²¹ Some projections forecast that world population increases up to around 10 billion people, then at the end of the 21st century starts to shrink due to globally decreasing birth rates.

46.4 in 2050, in the less developed regions from 24.3 in 2000 to 35.0 in 2050 (UN 2002). The median age in the developed regions currently is more than 13 years higher than in the less developed regions. But over the decades the median age will globally approximate on an increasingly higher level, whereby the group of elderly people is growing much more rapidly and in a shorter period of time than in the developing regions than in the developed parts of the world. On the long run the young-old balance is shifting throughout the world (UN 2002: 33). Consequently, Europe's negative demographic shift is a precursor of a global development – so huge the differences within and between the regions are, they all will be confronted with negative population growth and ageing populations: “the older population is growing at a considerably faster rate than that of the world's total population” (UN 2003: 33). How society and politics manage to deal with the opposed challenges will deeply influence their future.

2.4 Résumé

After expecting population growth to be the main threat of the future, demographers by and by started to project a deceleration in population growth, what implies a fundamental and dramatic shift in populations' age structure (Peterson 2002: 189) – first in the developed regions of the world (primarily Europe and Japan), on the long run the same is expected for the less developed regions. After a long time of (especially) political ignorance, the demographic shift became increasingly important - consequences, effects and strategies are heavily discussed in politics, media and public.

Population ageing can be seen as “a by-product of the demographic transition” (UN 2003: 22), predominately caused by declining fertility rates and only secondly by increased life expectancy. Generally, more people live longer, the number of ‘old’ people, particularly of the ‘old-old’ (people older than 85 years) increases rapidly in the developed countries, where the highest proportions of old people are found, but also worldwide.²² Thus, the basis of the population pyramid in the developed industrialised states is getting more and more thinned out²³: over

²² Worldwide, the number of old people (older than 65 years) tripled over the last 50 years and will more than triple again over the coming 50 years (UN 2002: 33).

²³ But also in the developing states, where population growth by and by decelerates and population ageing on the long run will be even more dramatic than today in the developed countries and regions. Nevertheless, the current level of demographic ageing is on much higher level in the developed states, the developing countries will remain much younger than the developed countries for the decades to come.

time, what was once a pyramid changes into something looking more like a top-heavy mushroom.

Thereby, the demographic transition leads to a paradox situation: on the one hand, world population is still growing and will continue to grow for at least the next 50 to 80 years. On the other hand the industrialised and developed regions face gradual population decline and population ageing, and soon the less developed countries will follow. That world population is still increasing for such a long period of time is due to demography's sluggishness, which makes the 'surplus' of born children noticeable for decades, even if the birth rate decreased again. Continued population growth of course would not be desirable, as overpopulation is connected with problems such as food shortage, poverty and environmental damage. Thus, the problem is not a gradual shrinking of population as such, but the unbalanced inter-regional and intra-regional spreading of population decline. Some world regions will have to deal with population decrease, while others have to cope with massive overpopulation (inter-regional unbalance). And within the regions where population is shrinking population is demographically unbalanced, as the elderly form a growing fraction of society, while the number of younger successors is decreasing: population ageing.

In the following it is focused on the intra-regional unbalance. On the basis of Europe's ageing population, the next section gives a short general outline of the effects of an ageing population on society and economy, before it is continued with an deeper analysis of the impact of the demographic shift on the pension system and intergenerational justice.

3. Boon or burden? – The challenge of population ageing

In the following the challenges and changes set by the alteration towards an increasingly ageing society are examined. So chequered and controversial the depth of the demographic impact is discussed, there is more or less clear agreement on the fact that there is some kind of influence on society and economy when a whole population is collectively ageing.²⁴ However, there is disagreement if the positive effects outweigh the negative or vice versa.

According to the economic demographer Alfred Sauvy (1898-1990) population ageing has economic, sociological and psychological effects (cf. Disney 1996: 2-4). A similar classification is used here, by presenting the effects on society in general (including the ‘psychological’ effects of an greying population) and on economy.

3.1 Societal challenges

Europe is representing one of the first world regions where population is collectively ageing. The next generations “will live in societies demographically older than any we have ever known” (Peterson 2001: 66). If a population is ageing and declining this effects society.

One problem will be a so-called public-choice problem (Disney 1996: 3). With the increase of the relative number of the elderly in population and the reduction of the relative number of young (Peterson 2002: 191) a growing influence of the elderly comes along (cf. Myles 2002; Disney 1996; Jackson 1998; Sinn 2005). Possible result could be a society increasingly dominated by the preferences of older people, who are able to exert influence on politics according to their interests, while the younger people have no real (or only a weaker) lobby,

²⁴ Cf. here for example the report of the European Commission for the second World Assembly of Ageing, in 2002 in Madrid, the Commission report “Towards a Europe of all ages” from 1999, or the UN World Youth Report. There it is stated that “ageing will become more of a universal trend in the coming decades” and that Europe (together with Japan) will be one of the first areas being affected by ageing, therefore has to develop a variety of policy responses to the population ageing.

as they are in minority. In other words: the needs and preferences of the elderly outweigh these of the younger. It is of course in the nature of democracies that policymakers try to act according to the interest of the majority, but nevertheless, the minorities' interests have to be paid attention as well. This is of particular importance for intergenerational interests and questions, as decisions made by politics tend to have deep impact on future generations (is it related to environmental questions, the finance of the social security system, education, biotechnology and medicine etc.). Even it would be exaggerated to evoke an intergenerational conflict or an intergenerational crisis, it otherwise would be blind to ignore this potential conflict of intergenerational interest. It is the duty of the responsible politicians to rank sustainability and justice to future generations higher than short-noticed success and benefit.

A society increasingly affected by older people will also have to change its self-conception. Ageing will play a different role society from what it is playing now. With increasing life expectancy older people started to reject stereotypes of old age, pursue a more active life and will play more important role in society and as consumer on the market (World Youth Report 2003:2). Nevertheless, it could also be discussible to what extent an aged society due to its changing structure loses its vitality and vigour.²⁵

Furthermore, some regions in Europe will face greater demographic changes than others. In regions and cities with good economic conditions, high employment, high standard of living and fully developed infrastructure, on the one hand congested areas will emerge – while other regions economically and socially off the beaten track will be more or less abandoned. Even media often to go over the top (with headlines like “Ocean of poverty and dementia”; “Into the woods – wolves taking the place of people”) this will be an enormous problem for regions coming of badly anyway (e.g. Eastern Germany). To hold up only basic infrastructure might become increasingly difficult, and urban planner started to think about what happens, when a town is losing one third of its inhabitants within a very short period of time.

Generally, it can be expected that an ageing and shrinking population will be characterised by increasing contradictions and differences, especially because of the occurring problems for economy, which is deeply affected by a changing demographic structure (cf. Disney 1996; Jackson 1998).

²⁵ Sauvy says: “A population without children does not believe in the future and can hardly be expected to have the pioneering spirit..., [...] demographic stagnation brings a country to a moral and material crisis that is never foreseen in economic analysis.” (Sauvy, quotation from Disney 1996: 3).

3.2 Economic challenges

Population ageing leads to questions and problems affecting almost all areas of economics: it has macroeconomic implications for economy in general, as well as microeconomic implications for the individual (Jackson 1998: 198). The main economical challenge is that people live longer and thereby especially retirement and pensions, as well as other social benefits, will extend over longer periods of time (UN 2002:1).

Besides retirement and pensions, one important impact of an ageing population will be on workforce. The European workforce will change a lot in the coming decades due to the demographic shift. As the number of productive working-age people will decrease while the number of older people, mostly dependent on support and benefit, will increase, there is need for additional workforce to keep productivity. According to OECD studies²⁶ only around 40 % of the 55 to 64 aged people in Europe are part of the productive workforce. Thus, more than half of the older people retire 10 or more years before the general age of retirement. This is not mainly an impact of demography, but of the general development in affluent nations and can be seen as a ‘wealth effect’ (cf. here Myles 2002: 131). The incentive to work until the normal retirement age financially often simply does not pay off, people gain more when they retire earlier and draw their subsistence from the redistribution measurements. Early retirement became a general practice over the years in a lot of developed states. Thus, the typical structure of workforce in the affluent and developed states is characterised by the ‘potbelly’ of the baby boom-generation of the 1960s – few young people, few old people, mostly people between 35 and 55 years old. Companies used early retirement for saving costs²⁷ and for avoiding lay-offs; governments used early retirement to down the unemployment rate; and workers were relatively well-off with a generous pension.²⁸

This practice caused that “older people today are significantly less likely to participate in the labour force than they were in the past” (UN 2003: 29). What on the one hand might be a comfortable method for politicians to lower the unemployment rate and for workers to enjoy early retirement, on the other hand is a very pricy practice, generally financed by social expenditure and at the expense of younger and future generations. Even the current situation on the European labour market is very difficult and many young as well as older people have problems to find a job, it is of utmost importance to increasingly integrate older people in the workforce again and to stop the practice of early retirement. A

²⁶ I am refereeing here to the OECD Database on Labour Force Participation

²⁷ By saving costs for advanced training and continuing education for their older workers

²⁸ Notwithstanding, older employees often did not have a real choice – a lot of people had to retire even though they did not want.

labour market, which is able to generate sufficient employment to raise total employment levels is required, for giving the opportunity to extend working life and to increase retirement age: “a potential payoff is greater economic growth [...], [as] the effect of small increases in the average retirement age can have an equal or greater impact on retirement costs than large cuts in retirement benefits” (Myles 2002: 154).

4. The pay-as-you-go pension system and the intergenerational contract in demographic context

“Today’s prominent role of the demographic change in public and science in particular changed the view on the development of the labour market, the health care- and pension-system. Generally, scientists, politicians share the opinion that the social security system of the western (particularly European) states will break down, if the do not change and adjust according to the new challenges of the coming decades.”
(Struck 2005: 1)

As described above, the demographic development in Europe (caused by the combined effect of rising longevity and falling fertility) will result a rapidly ageing population, what also implies changing economic and social relations between the generations (cf. Lindh 2003; but also Birg 2005 & 2000; Kok 2004; Peterson 2002). Besides other deep impacts on society and economy, the ‘collective ageing’ of Europe’s population will particularly effect and challenge the widespread (cf. here Lüth 2003, Powell/Hewitt 2002) pay-as-you-go (PAYGO) system, the most common state-run system to finance social security (including health insurance, pensions, unemployment insurance, disability insurance etc.). Public as well as policymakers are concerned about the intensity of the demographic impact (Lüth 2003: 178). The overall question is, what can be done to secure social insurance for the coming generations?²⁹

The following passage surveys the PAYGO pension system under the conditions of an increasingly ageing population. What are the difficulties which will occur under the projected conditions? What does that mean for the intergenerational contract the PAYGO-system is originally basing on? And what policy and social changes are necessary to make pensions and generally social security still possible in the future?

²⁹ As John Myles formulates it as follows: “The question then is not whether we will survive ‘population ageing’ (we will). Rather, in face of an impending acceleration in the rate of population ageing, the big questions concern *whether and in what form modern retirement will survive, at what cost, and to whom?*” (Myles 2003: 170; words emphasised in italics by myself).

First, the PAYGO-system is described, it is outlined what it is basing on and what will change parallel to the demographic shift. Then, the current PAYGO-scheme is set in context to the intergenerational contract it is basing on; doing so it is referred to '*A Theory of Justice*' by John Rawls. This book of moral and political philosophy is providing the frame for a definition of intergenerational justice. Finally, propositions for possible policy actions are made.

4.1 The pay-as-you-go system for social insurance

The state-run PAYGO-system, stands for a way to finance an unfounded social security system (particularly pensions, but also health and unemployment insurance). It bases on an intergenerational contract, with a "cross-sectional income redistribution from taxpayers to pensioners" (Jackson 1998: 123). Paid contributions are directly used to finance the current costs and expenses³⁰, so that no funds are accumulated. A merit of the PAYGO-system is the fact that it can be less affected by economic change (such as inflation) than a funded system. Furthermore are tax contributions directly adjusted to real income. Thus, if the working age population benefits from economic growth by increasing income, older people have stake in it as well by gaining higher pensions. (Jackson 1998: 124/125). Furthermore, implementation of the PAYGO-system is relatively easy, as no reserve of capital is necessary for the 'first round' of distribution.

But the system gets into crucial troubles, when society becomes demographically unbalanced. By changing the number of contributors (which is declining) and recipients (which is increasing) population ageing deeply affects the stability of the PAYGO system. In order to keep benefits to the older people stable, heavier demands have to be imposed on the working population (in form of higher taxes or other contributions) (UN 2002: 33), or the other way around, pensions have to be reduced to avoid too heavy fiscal burden for the taxpayers. Both measures are unpleasant, but it is important to recognise that "a balanced-budget pay-as-you-go system must be adjusted continually in response to demographic and other changes" (Jackson 1998: 125).

³⁰ Mostly in a so-called 'payroll-tax': taxes deduces from the workers or employers wages and which are paid besides others to the health insurance and the pension system.

4.2 The pay-as-you-go system and intergenerational justice – Where is the problem?

To outline the dilemma of the intergenerational contract³¹ and intergenerational justice the traditional PAYGO-system is very suitable (Myles 2002: 170).

For centuries, older people normally lived with their families. Social security was a family affair and thereby more or less private matter. Parallel to industrialisation and increased development, this changed during the 19th century. Industrialisation, urbanisation, changes in the traditional family structure, as well as an increasing number of elderly people made social security and particularly ‘old-age dependence’ a social problem (Peterson 2001: 66). At that time, at the end of the 19th century, chancellor Otto von Bismarck was the first who introduced a state run social security and insurance system including retirement distribution.³² Over the years, this social security system changed a lot especially in the post-war decades, when pensions were ‘opened’ and ‘democratised’. The rapid economic growth, high employment, and rising incomes guaranteed a relatively prosperous old age, with living standards little different from working age households (Myles 2003: 130/131). That is the more important to mention, as until the first half of the 20th century old age was more or less the synonym for poverty. Thus, one of the great achievements of the affluent democracies of the 20th century was the democratisation of retirement: “old age incomes have been rising, retirement ages have been falling, and the elimination of old age poverty is now well within the reach of most developed nations” (Myles 2003: 130).

What on the one hand is a comfortable result of a affluent and wealthy society and state system, on the other hand precipitated the pension system into crisis; and this crisis is a result of the demographic transition (Sinn 2001: 77). The retirement-contract introduced in the post-war period “based on favourable demographics and robust economic growth” (Esping-Andersen 2002: 23). But today, economy is in chronic recession, accretion is rare; and demographics are anything than favourable for economic stability. The main problem is that the number of the economically inactive age group (the people aged 60 years and above) will rise (Disney 1996) - the cost of maintaining the status quo we got used to will escalate substantially as a result of population ageing (Myles 2003). As most of the European countries run relatively generous PAYGO pension schemes,

³¹ Defining the intergenerational contract as intergenerational relationship. This relationship is governed by rules, norms, conventions, practices and biology with the ‘contract’ being implicit rather than arrived at through individual negotiation (UN 2003: 400).

³² Whereby his main motivation was actually not concern about the workers’ living conditions, but calculus to avoid increasing influence of the social democrats. Notwithstanding, the social security system he implemented still forms the basis of today’s social security system and Bismarck can named one of the main precursors of the welfare state.

policymakers and public are concerned about the impact of this demographic shift on the distribution with intergenerational basis (Lüth 2003: 178). Already for a long time, early voices warned about the serious crisis or even break down of the pension system, but in the 1970s and 1980s they were not paid much attention (cf. Sinn 2001, who is referring here to warnings of Winfried Schmähl, A. Wahl, Meinhard Miegel etc.). But today, warnings got much more frequent and alarming, what seems to have woken both, policymakers and public.³³ Within a very short time (actually, in the last two decades), discussion about the insecurity of future social security and the challenges to the intergenerational contract under the changing population structure suddenly got to an important topic in policy, public and media.

Due to the demographic change and the rising median age in Europe boosted pressures on the public sector seem more or less inevitable (Schubert/Martens 2005: 11). Not problem enough, the increasing demographic imbalance in population (more elderly and dependent people, less working people contributing to the social security system) and the usual defined benefit formula “impose all the cost of population ageing on the working age population” (Myles 2002: 170)³⁴ – what conflicts with the principle of intergenerational equity, as well with the intergenerational contract. This contract is not legally fixed – as he not exists in written form (Birg 2004: 35) - , but was established in the post-war decades to finance the welfare state, particularly the pension system, and exists thenceforward as “implicit intergenerational contract, whereby the young meet the needs of the current elderly generation on condition that, when they in turn are elderly, the next generation will meet their needs” (Jackson 1998: 36). For the discussion of intergenerational justice ‘generation’ is defined in a chronological way. Accordingly, ‘generation’ stands for (a) age groups (so-called cohorts) within society (young, middle, old, if applicable ‘old-old’), whereby one generation can be set around 30 years³⁵ (intra-temporal); or (b) for the collectivity of all presently living people, what means that there always exists only one generation (inter-temporal) (Gründinger 2005: 8).

Regarding the intergenerational contract it is important to adopt the right perspective: in fact the contract is a ‘three-generations-contract’. Every course of

³³ Notwithstanding, these warnings sometimes are highly exaggerated and extremely pushed by media – a serious demographic debate today would be definitely necessary, but articles describing the demographic development as the ‘ticking time bomb’ nothing can be done against are contributing to a serious and result-oriented debate..

³⁴ Or as Jackson says: “Social policy measures have not sought to preserve uniform treatment among generations, and some generations may have fared better than others. (...) As the elderly population expands, the shares of national income and total public spending going to older age will rise, and the tax payments of younger generations will have to finance this” (Jackson 1998: 36).

³⁵ Women normally have their first baby in the middle or end of the twenties.

life can be divided in three basic stages: first, childhood, when one is supported and ‘subsidised’ by the economically active persons of the parental generation; this phase descends to the period when oneself is becoming economically active, changing from the benefit recipient to a benefit provider, who now supports on the one hand the elderly people of the generation of his parents, and on the other hand the young descendants of his own generation; finally, in the third stage of life, by becoming older, one changes again to a benefit recipient – receiving benefits from the now economically active following younger generation. Thus, each within one life each person is first recipient, then contributor, and then again recipient from and to other generations, whereby the increasing life expectancy makes sure that more and more people live together not only with their parents and grandparents, but also their great-grandparents.

Accordingly, the participation of three generations (not only two) is always necessary to keep the intergenerational contract viable – each person within life receives support from other generations two times, and himself supports the generation of his parents, as well of his descendants. Thereby, by contributing to the social pension programme, the medium generation gives back the support received during childhood from the generation of their parents; they do *not* already contribute to their own retirement provisions. Benefit they receive in old age first has to be produced by the descendant generation (Birg 2004: 35/36). This, in fact very simple, concept of the PAYGO system demonstrates that an essential precondition for the operability of the intergenerational contract (and thereby for the security of the old age provision) is a balanced proportion of the successive generations – and the proportion is particularly determined by the number of born children³⁶.

In times Europe due to the demographic transition and population ageing faces an immense social shift, in times reconstruction and modification of the welfare state is one of the policy top-issues, and media as well as policymakers start to conjure the population to be prepared for vast social change, it is necessary to discuss on which principles these reconstructions and modifications should base on. As population ageing raises questions affecting almost all areas of economics (Jackson 1998: 198), the palette for a discussion of equity and justice is immense – here it should be focused on economical justice, concrete on the intergenerational contract which provides the basis for the PAYGO pension scheme. In order to find a common basis for the understanding of political and social justice in the following passage it is referred to John Rawls’ ‘A Theory of Justice’.

³⁶ Mostly described with the total fertility rate (TFR).

4.2.1 John Rawls' 'A Theory of Justice' – A just savings principle

John Rawls (1921-2002) can be regarded as one of the most significant political philosophers of the 20th century. The leitmotif of his theory is justice as fairness. Theoretically he is in the tradition of the social contract theories of Thomas Hobbes, Jean-Jacques Rousseau, John Locke, and Immanuel Kant.³⁷

In his book, 'A Theory of Justice' (first published in 1971; the book led to a revival of the academical study of political philosophy) John Rawls wants to answer the question how to handle diverging perceptions of justice, or, in other words, he wants to find the conditions for a fair and just society. People have different ideas of what is just and fair and what not³⁸. That necessitates a method to find a just and fair solution, a strategy that helps to come to a rational decision out of the diverging perceptions and ideas and treat people equally. There exist different practices to answer the problem of reaching a just decision: that could be done via quota arrangement (e.g. a certain rate of women that have to work in a company), by lot, through deliberation and discussion, by voting etc. According to Rawls, the best way coming to a rational decision of fairness and justice is in the so-called *original position*, when society is covered by a *veil of ignorance*. Being behind the 'veil', people are blinded to anything about their position in society, they do not know their social-economical status, their age, their sex, generation etc.: "No one knows his place in society, his class position or social status; nor does he know his fortune in the distribution of natural assets and abilities, his intelligence and strength, and the like" (Rawls 1999: 118).

The original position of course is non-historical, but a helping hypothetical construct Rawls argues to be an appropriate and objective method to come to just solutions. Standing behind the veil of ignorance, one would never decide in prejudiced manner or heedlessly, and in deliberations always the interest of the least advantaged person in society is implied. People in the original position simply do not know what their personal interest would be, and because of their ignorance, they have a pure, unclouded and objective concept of justice. Thereby, Rawls does not claim people to be altruistic and therefore decide in interest of even the least advantaged person in society; they do so because they themselves possibly could be the person worst off. They simply do not know their position and interests, because these are covered by the veil of ignorance. Under these conditions (a contractual decision-situation in the original position) a social contract would always measure justice from the level of the people least fortunated.

Furthermore, Rawls gives two guiding *principles of justice* (Rawls 1999: 52) for the elaboration of a social contract out of the original position: "First: each

³⁷ Rawls' theory of justice is morally very close to Kant's Categorical Imperative

³⁸ Their different perceptions of justice and fairness originate from different cultural influence, own personal attitude (e.g. egoism, altruism),diverging levels of knowledge etc.

person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others. Second, social and economic inequalities are to be arranged so that they both (a) reasonably expected to be to everyone's advantage, and (b) attached to positions and offices open to all." (Rawls 1999: 53).

With these two principles Rawls presupposes on the one hand the security of basic liberties³⁹ within a social system; moreover, he postulates that the distribution of wealth and income should be in a way which is to everyone's advantage (but, different from Egalitarianism does not have to equal!), while at the same time, "positions of authority and responsibility have must be accessible to all" (Rawls 1999: 53). In short: Immaterial goods have to be equally distributed, while material goods do not have to be distributed in an egalitarian way. Rawls calls this the *difference principle*, meaning that social or economic inequality is legitimate, when it is to advantage of the worst off in society. The crucial factor is the equality of opportunity, assuring that everybody has the same right and opportunity to gain access to positions and offices. In either way, the principle of justice assures that the welfare of the least fortunate individual is maximised (what in literature is called the '*maximin strategy*') (Disney 1996: 303).

While he examines social justice, Rawls thereby dwells on the intractable problem of distributive justice: "For us the primary subject of justice is the basic structure of society, or more exactly, the way in which the major social institutions⁴⁰ distribute fundamental rights and duties determine the division of advantages from social cooperation." (Rawls 1999: 6). Rawls also emphasises the intergenerational aspect of justice, and explicitly applies his theory for *the problem of justice between the generations* (Rawls 1999: 251)⁴¹, which he regards as a very important problem⁴². Rawls clearly takes up position by saying that

³⁹ The important basic liberties Rawls explicitly mentions are political liberty (the right to vote and to hold public office) and freedom of speech and assembly; liberty of conscience and freedom of thought; freedom of the person, including freedom from psychological oppression and physical assault and dismemberment (integrity of the person); the right to hold personal property and freedom from arbitrary arrest and seizure as defined by the concept of the rule of law (Rawls 1999: 53). These basic liberties can be seen as some kind of public good.

⁴⁰ "By major institutions I understand the political constitution and the principal economic and social arrangements." (Rawls 1999: 6).

⁴¹ Rawls was the first coming up with a systematic discussion of obligations for future people (Stanford Encyclopedia 2003).

⁴² Rawls says here: "We must now consider the question of justice between generations. There is no need to stress the difficulties that this problem raises. It subjects any ethical theory to se if not impossible tests. Nevertheless, the account of justice as fairness would be incomplete without some discussion of this important matter." (Rawls 1999: 251).

“Each generation must not only preserve the gains of culture and civilization, and maintain intact those just institutions that have been established, but it must also put aside in each period of time a suitable amount of real capital accumulation.” (Rawls 1999: 252).

In the original position past, present, and future generations deliberate all together. Thereby, the veil of ignorance does not only cover their position in society, but also their temporal position, thus their generation. Consequently, the debating and bargaining people in the original position have to agree on a *just saving principle*, fixing an appropriate accumulation-rate for each level of societal-economic development. Saving rate thereby means everything leading to real capital accumulation: “This saving may take various forms from net investment in machinery and other means of production to investment in learning and education. [...] It should be kept in mind here that capital is not only factories and machineries, and so on, but also the knowledge and culture, as well as the techniques and skills, that make possible just institutions and the fair value of liberty.” (Rawls 1999: 252 & 256).

Rawls does not proclaim to have found the key for easy and simple adjustment of the saving principle⁴³, but he at least wants to formulate “certain significant ethical constraints” (Rawls 1999: 253), which could contribute the debate on justice between generations.

4.2.2 Justice as fairness

“[...] persons in different generations have duties and obligations to one another just as contemporaries do. The present generation cannot do as it pleases but is bound by the principles that would be chosen in the original position to define justice between persons at different moments of time. [...] men have a natural duty to uphold and to further just institutions [...].”
(Rawls 1999: 258)

With ‘A Theory of Justice’ Rawls proposes an objective method to find just solutions, particularly in distributive questions. Even the original position and the

⁴³ ”Now I believe that it is not possible, at present anyway, to define precise limits on what the rate of savings should be. How the burden of capital accumulation and of raising the standard of civilization and culture is to be shared between the generations seems to admit of no definite answer.” (Rawls 1999: 253).

veil of ignorance have to be clearly seen as an ideal hypothetical construct, Rawls' theory provides significant ethical and moral contributions to actual policymaking, and offers a fruitful basis for discussion on questions of intergenerational justice and especially the intergenerational contract.

In the original position, every generation is represented; people know that they are part of one generation, but the veil of ignorance blinds them to which particular generation they belong (Stanford Encyclopedia 2003).⁴⁴ Thus, different from a lot of other theories, Rawls considers the welfare of the generations which are not yet in existence. That is the more important, as their "compliance is required in any contractual relationship that guarantees transfers between generations" (Disney 1996: 302). Like Rawls, the American economist Paul A. Samuelson argued for an intergenerational social contract basing on the Kantian categorical imperative⁴⁵. But Samuelson wanted to secure the welfare of existing and future retirees by declaring commitments to the social contract to a 'public good'⁴⁶. However, in such a system basing to great extend on altruism, where every individual knows about his own economic and social position, there always exists the risk of free riding⁴⁷. Individuals easily can take the openness of the system as advantage and benefit without contributing sufficiently or at all.

With his ideal theory of justice John Rawls offers a solution for the problem of obtaining a just intergenerational contract (Disney 1996: 303). He does not assume people to act responsible and in the interest of future generations because of altruism – rather he implies the rationality of men. Just because they themselves could be member of any generation or of the less advantaged part of society, they include these interests in the deliberation on just distribution and for the adoption of a savings principle⁴⁸: "Since no one knows to which generation he

⁴⁴ Rawls calls this ignorance of the temporal position 'present time of entry' (Rawls 1999; Gründinger 2005; Stanford Encyclopedia 2003).

⁴⁵ The categorical imperative formulated by the philosopher Immanuel Kant is best known in the formulation: "Act only according to that maxim by which you can at the same time will that it would become a universal law."

⁴⁶ Economically, public goods are "...[goods] which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtractions from any other individual's consumption of that good..." (Samuelson 1954); general goods of all people within a community; see also Mancur Olson, "The logic of collective action – public goods and the theory of groups", 1965.

⁴⁷ Free rider are people who consume more than they are fairly entitled to, or who contribute less the fair share of costs would be.

⁴⁸ Relating to intergenerational justice Rawls additionally included a 'motivational assumption' for a saving principle: he assumes that the deliberating parties represent family lines (Rawls 1999: 255), so that the negotiators care at least for their immediate descendants and non-compliance of the social contract by previous generations would not occur. In fact, this additional incentive is not really necessary – as Rawls postulates an ideal theory (in the

belongs, the question is viewed from the standpoint of each and a fair accommodation is expressed by the principle adopted. All generations are virtually represented in the original position, since the same principle would always be chosen. An ideally democratic decision will result, one that is fairly adjusted to the claims of each generation and therefore satisfying the precept that what touches all concerns of all. [...] The process of accumulation, once it is begun and carried through, is to the good of all subsequent generations.” (Rawls 1999: 256).

In his theory Rawls’ assumes that previous generations accumulate capital for the following generations by agreeing on the basis of a just saving rate. Rawls theory of justice as fairness provides a moral basis for a functioning intergenerational contract. Each generation’s freedom is restricted by the freedom of future generations. Rawls clearly assesses that no generation is allowed to live on the cost of other generations: “The just saving principle can be regarded as an understanding between generations to carry their fair share of the burden of realizing and preserving a just society.” (Rawls 1999: 257). Originally, the intergenerational contract commits to this principle of justice: each generation should be supported during childhood by the previous generation; then, in times of economic productivity this generation contributes to the social insurance of the elderly, in return this generation can expect to benefit from the coming generation’s contribution to the social insurance system. Problems occur, when the numerical balance of contributors and beneficiaries is not even any more, as it is the case in a declining and ageing society as in Europe. If so, the coming generations are forced to make much higher contributions as the previous generation(s) did, and they themselves can not expect to receive adequate benefits in older age. Primarily, this is not an inherent failure of the intergenerational contract, rather than of politics, as social policy measures have not sought to preserve uniform treatment among generations, with the result that some might have fared better than others (Jackson 1999: 36).

In consequence of population ageing it came to a growing awareness of the role of intergenerational equity. Especially in developed countries people are becoming more ‘age-conscious’. Sometimes even a growing tendency towards the formation of generational interest groups is proclaimed. Age and generational membership start to be one of the social dividing lines like class, race or gender. In the end, this could potentially lead to an intergenerational conflict, especially as so far existing ‘family ties’ (where working aged adults support their children and their parents) are becoming less – a growing number of people does not have children, therefore is not closely connected to coming generations. Result might

original position all generations are represented and nobody knows to which generation he belongs), the interest of all generations (of current, as well as of future) and of the least fortunate people within society have to be included.

be that the “older generation will fight to preserve their welfare entitlements, while younger generations, goaded by self-interest or perceived intergenerational unfairness, could try to break the implicit intergenerational contract underlying the welfare state.” (Jackson 1996: 37).

Even the proclamation of an intergenerational crisis basing on a conflict of interest of the elderly and the younger might exaggerated, yet, there definitely is enough potential for conflict in the coming decades. Policymakers have to pay attention to the potential lines of conflict and find appropriate and fair ways to devitalise them. The generous welfare state established in the post-war decades has to change, but thereby the burden of population ageing can not be carried by the future generations alone.

The following chapter will give possible implications for policy change. Fundamental change, contributing to the shifting conditions and to the challenge of intergenerational justice in times of an ageing and declining population is definitely needed. The welfare system has to be redesigned in order not to make the welfare state to a ‘single-generation phenomenon’ (Jackson 1996: 38) only the so-called welfare generation⁴⁹ came to knew the promise of.

⁴⁹ The people growing up in the post-war period – in a period of high employment, rapid economic growth and rising living standards.

5. Demography and intergenerational justice – Policy implications for future social security

Policymakers are confronted with the problem, to find an adequate way for adjusting social security to the changing demographic circumstances within the post-industrialised European states. Thereby, they have to consider the principles of justice between generations as outlined in John Rawls' 'A Theory of Justice' – a very difficult task, as has to be admitted. The population of the European states is demographically changing, the general trend leads towards a shrinking and increasingly older population. This affects on the one hand society, but especially economy. Particularly the social security system basing on a PAYGO basis is challenged, as the basic requirements – a sufficient number of economically active people, who are able to support the retired and economically inactive people by just and reasonable contributions to the social security system - do not exist any more and will become even more unbalanced in the future. The dilemma of the common PAYGO system is that most of the costs of population ageing are imposed on the working age population (by increased tax payment) as well as on coming generations (by spending money for current needs at the expense of an increasing public debt). That conflicts with the principles of justice and equity between the generations and is neither economically nor ethically justifiable.

But how to meet the coming challenges? After a long time of ignorance, politics got increasingly aware of the forthcoming problems and challenges and started to 'prepare' people for future incisions and changes. They know that partially crucial changes have to be made – and that these changes for the most part will be very unpopular.

One of the possible measures for pension reform would be the raise of retirement age⁵⁰, or the provision of incentives for people to work longer. The postponement of retirement generally is seen as one of the most potent tools to contain public pensions without cutting the incomes of the elderly and rising taxes for the working people. Furthermore, a partial switch to a funded system, as a complement of the PAYGO system, would be possible. But no matter if it is

⁵⁰ What would also be the logical consequence of increased life expectancy: working standards raised, workers are healthier and better educated – thus, workers generally will be capable of working longer (cf. Myles 2002: 171).

funded or PAYGO, both pension systems present a zero-sum game for all generations participating: “the present value of all contributions equals the present value of all pension [...]. Any attempt to modify the pension system so as to make some generations better off will automatically make others worse off. [...] there is no Pareto improving transition to a funded system” (Sinn 2001: 81; cf. also Sinn 2005).

Thus, both proposals for possible reform are only starting points, but could already help to improve the financial situation of the pension system and to spread the burden of population ageing on all generations.

Another potential point for reform would be the consideration of the ‘generative-contribution’ made by people who raised children⁵¹. A problem of the PAYGO pension system is that it favours people without children in comparison to those who have children (FAZ 2005).⁵² Principally, people who have sufficient children could continue to participate in a PAYGO system without any troubles. They invested capital by raising their children and thereby guaranteed the succession of future tax payers who will sponsor the social security system when they start working. It could be regarded as injustice that the PAYGO system does not honour this ‘human capital investment’. Arguing, that the crisis of the pension system is a demographic crisis, it can be said that people not raising children were involved in creating the crisis; additionally, people who do not have children did not invest money and other resources needed for raising a child, thus, they saved capital.

In a functioning PAYGO system people normally have to bear a double burden, by supporting on the one hand the elderly and on the other hand caring for the own pension. But there are two different ways paying for the own pension, as that could be done by raising children (who later will form the group of contributors for the pension system) and thereby investing in human capital, or by paying the money that was saved as one did not raise to a funded system.

⁵¹ For this proposal I refer to Sinn 2001 and Sinn 2005

⁵² In Germany the Federal Constitutional Court arrived at the same conclusion: in a PAYGO system pension without children are unconstitutionally advantaged, as in this system they qualify for exactly the same pension benefits, as parents with children do.

6. Conclusion

Population ageing on a large scale like Europe faces it today was unknown before the 20th century; and it is especially this unprecedented character which creates uncertainty (Jackson 1998: 1). The main challenges to the post-industrial European welfare state system by population ageing are:

- growing dependency, as the number of the elderly is growing and life expectancy is increasing; the growing dependency leads to an enlarged burden for the younger, economically active people,
- the risk of poverty in old age, as there will be less capabilities and financial resources for the increasingly number of elderly,
- the crisis of the social security system and particularly of the PAYGO pension system, as beneficiaries by far outnumber those who contribute to the system,
- the impact of a declining population on productivity and labour force, due to a lack of well educated workers and employees
- the problem for health care and social services, as the number of old people and especially of the oldest-old raises, and these are the people health care expenditure is mostly used for.

The variety of challenges shows how broad and complex the issues population ageing raises are. Nevertheless, the main policy challenge posed by population ageing is not demographic but economic and distributional. In order to guarantee social security to coming generations, the traditional PAYGO security system has to be modified and adjusted to new needs and requirements.

One of the important conclusion examining the demographic shift of the European countries is that the demographic development can not be separated from economy: "[...] intergenerational transfers are not the only way in which the demographic transition affects generations' welfare. In addition, population aging will change factor incomes and entail substantial distortions of labour supply decisions - effects that can be captured only in a general equilibrium setting with optimising agents" (Lüth 2003: 179). The older the European population becomes, the more important is economic growth. To fulfil the task of income redistribution, and to finance the increasing burden of the social pension systems makes the state very dependent on economic growth, expressed by increasing productivity, low unemployment rates etc. (Straubhaar 2003: 290). This is of utmost importance, as especially the European welfare state gets into trouble, as it is much more comprehensive and generous than most of the other welfare

systems. Social security in Europe plays a very important role, “public regards generous old-age benefits as the very cornerstone of social democracy” (Peterson 2001: 67). Maintaining this high level of social welfare without conflicting with the intergenerational contract will become the more difficult, as a growing number of aged people must be supported by relatively fewer younger persons.

The growing demographic unbalance and the declining financial resources for social security might force society to focus much more on informal economic activity (Jackson 1998:17). Particularly as the number of the ‘oldest-old’ is increasing, a growing number of elderly will be dependent on informal care by relatives, friends, neighbours etc. Generally, governments might try to transfer care from the formal to the informal sector to by proclaiming informal care as a free good and thereby being able to save money.

Generally, basing on the principle of justice as fairness, the burden of an ageing population has to be carried by both, the elderly and the younger. Therefore, social policy has to change, as the widespread PAYGO system used to finance social security primarily burdens the young, foremost the coming generations under the disguise of an intergenerational contract. As they are not yet in existence, these generations do not have a lobby and policymakers have no real incentive to imply future generations’ interests. Nevertheless, the interests of future generations have to be included in current policymaking, especially as the decision on these important issues such as social welfare will have massive impact on the size of the burden future generations have to bear: “The main policy challenge posed by population ageing *per se* is neither demographic nor economic but distributional. Our demographic future is more or less destiny. Though unexplained, declining fertility is a worldwide phenomenon, unlikely to be substantially reversed by public policy interventions. [...] The distributive challenges, in contrast, are profound. [...]..how to manage the transition so as to satisfy principles of intergenerational equity and intragenerational justice while also contributing to the further democratisation of retirement among men and women.” (Myles 2003: 134).

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