

ENGLISH TRANSLATION OF REPORT 2021:7

Options for Early Retirement

An Analysis of International Experience

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An Analysis of International Experience

A Swedish Social Insurance Inspectorate Report

Gothenburg 2021

The Swedish Social Insurance Inspectorate (Inspektionen för socialförsäkringen, ISF) is an agency of the Ministry of Health and Social Affairs. ISF provides an independent supervisory function for the Swedish social insurance administration.

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Foreword by Director-General

As the population of Sweden continues to get older, there is a simultaneous decrease in the number of people entering the labour market. This means that a smaller number of working people need to support more retired people. Consequently, like the pension systems in many other countries, the Swedish pension system is facing many challenges.

The pension system has been reformed and subject to several measures since the 1990s that were introduced to support raising the age of retirement. However, not everyone is able to or can work until retirement. This can then mean a period with other forms of allowance, such as disability pensions or unemployment benefits. It involves an interaction between different security schemes in which the pension scheme is vital for these people to have some form of financial security.

The demographic challenges of an ageing population here in Sweden are shared with many other industrialised countries.

The Government has commissioned the Swedish Social Insurance Inspectorate (ISF) to compile and compare the ways in which it is possible to retire early in other comparable countries. In particular, we look at solutions for those who have had a long working life, who have had hard and low paid jobs and are not able to work until retirement. We will compare the effects and driving forces that emerge from different systems, as well as focus on both the advantages and disadvantages of the systems in relation to social insurances in Sweden. This report is our response for the Government.

My hope is that the report will contribute important knowledge to the discussion regarding how the Swedish social insurance system can be

shaped at a time in which the population continues to age while at the same time, not everyone is able to or can continue working for longer.

This report was written by Eskil Wadensjö (project manager), Stefanie König, Mats Bengtsson and Simon Schönbeck.

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Gothenburg, September 2021

Eva-Lo Ighe

Summary

The Swedish Government has commissioned the Swedish Social Insurance Inspectorate (ISF) to compile and compare early retirement pathways in other comparable countries. The commission is especially focused on options for early retirement for people who have had a long working life spanning many years and in particular, those who have had strenuous work and low incomes. We have reviewed a number of countries and present ten European countries in more detail in this report, which is our response to the commission from the Government.

Purpose and questions

The purpose of the report is to define and analyse the options that have been introduced by other countries *to support early retirement for certain groups*.

The report intends to answer the following underlying questions. What are the advantages and disadvantages of the different options for early retirement? What are the driving forces that may emerge from each? How accurate are they for the group defined by the Government in the commission? And how could they be introduced in Sweden?

The basis for the report is that an ageing population requires an extended working life. The objective of an extended working life means higher demands to continue working to an older age. But it is difficult for certain groups and individuals to do. The trend towards an extended working life is found in many countries. As a result, there may be lessons that can be learned from the reforms and systems for early retirement for certain groups.

There are five options for early retirement in comparable countries

We have identified five options for early retirement that are used by other countries. Those five options are:

- The option of an early retirement for people with a working history of many years or those who started working life early (hereinafter referred to as: “long working life”).
- The option of early retirement for individuals in certain occupations or with certain work tasks (hereinafter referred to as: “specific occupations and work tasks”).
- The option of early retirement or downsizing through part-time work solutions and partial retirement solutions for older adults (hereinafter referred to as: “phased retirement solutions for older adults”).
- The option of early retirement for older workers with reduced work ability through medical insurance or early retirement (hereinafter referred to as: “reduced work ability”).
- The option of early retirement for unemployed older workers or extended unemployment benefits for older adults (hereinafter referred to as: “unemployed older adults”).

The particular design of early retirement options differs between in different countries. But they are sufficiently similar to be considered variants of one of these five solutions. Combinations of different solutions also occur.

The specific design of the solution is important for reducing disadvantages

The five early retirement options found in other countries have both advantages and disadvantages. They are more or less suitable for the Swedish pension system and are more or less accurate with regard to the group highlighted by the Government in its commissioning of ISF. The specific design of different solutions is important for both the accuracy and for avoiding negative effects.

It is our opinion that none of the five options for early retirement presented in the report can be copied into the Swedish pension system without problems. If any measure or benefit is to be introduced into the Swedish pension system, it may be advantageous to combine the measures we have identified in order to reduce the disadvantages. In the following, we present the advantages and disadvantages of the different solutions.

In Sweden, it is not solely a matter of the option of early retirement but also involves the level of pension for different groups

Some countries have defined benefit pension schemes in which the level of pension is defined in advance, whereas Sweden has a defined contribution pension scheme for which there is no predetermined level of pension defined in advance. In Sweden, the income over the life of each individual determines their pension income. This means that introducing certain options found in other countries into the Swedish system is complicated. In certain cases, individuals in a country with a defined benefit scheme can retire early without a reduction of their pension benefits. This is not the case in Sweden, where early retirement leads to a lower pension because the life income decreases.

Long working life

People with a long working life may retire earlier, sometimes without receiving a lower pension

In some countries, there is an option for early retirement for people who have had a long working life or who started working at a young age. In many cases under defined benefit pension schemes, an individual can retire early without the pension being reduced.

The definition of what is counted as a working year differs between countries. It may be the number of years for which an individual is insured by the pension insurance, the number of years of pensionable income or the number of years with payments into different schemes.

There are sometimes minimum limits for how low the pensionable income can be in order for a working year to be counted.

The way in which the number of working years is calculated affects how many people are included and if there is gender equality

One disadvantage of a special regulation for individuals who have had a long working life, is that if we start from the number of years that are required in other countries, it will probably cover few people. The number that would be covered depends on how many years are required for a long working life.

Another disadvantage associated with the Swedish pension system is that the level of pensions would be lower for those who retire early. There are two types of solution available in other countries. One solution involves increasing pensions for those who started working early - either through payment of a bonus or by multiplying pension contributions paid as a teenager by a factor that renders them more valuable. Another solution is that pensions of individuals with a long working life are calculated with a different age coefficient (such as the Swedish *delningstal*) compared to same aged individuals.

There are challenges with this solution with regard to women and immigrants. The requirement for a long working life can result in a poorer outcome for women who have fewer contribution years than men, especially during the years spent raising children in the pre-school years. Many people who live in Sweden have come to the country as adults. This raises the question as to whether it should be possible for years of work in the country from which they came to be included. Such people may have had a long working life, despite parts of it being outside Sweden.

Specific occupations and work tasks

In some countries, individuals in specific occupations or with certain arduous work tasks have a lower pension age

In the countries studied, those who have worked in strenuous occupations have the option of taking early retirement, sometimes without any reduction in the level of pension.

There are several ways in which to arrive at a definition for what is regarded as a strenuous occupation. It may be that the occupation itself is strenuous or that the occupation places particular demands on the cognitive capacity of the practitioner, which is assumed to decline with advancing age. It could also be that older practitioners in certain occupations can be assumed to pose a danger to others. Physical, physically-oriented and psychosocial work factors are of significance in different countries.

In the 2000s, some countries with early retirement options for strenuous occupations reduced the possibility of taking an early retirement for this group. Some countries have abolished the option, tightened the rules or introduced individual assessments. But there are also countries in which there are discussions around increasing the number of occupations that allow for early retirement.

Rendering early retirement possible for certain groups does not take individual work ability into consideration

The solution with a lower retirement age for some occupations is an administrative burden. It will be difficult to create and administer a list of occupations or work environments that give the right to retire early, as workplace health and safety factors and exposure to these must be measured in a reliable manner. One special challenge is measuring psychosocial workplace health and safety factors.

Furthermore, the list of occupations or work environments needs to be sustainable over time in a changing labour market.

Using a list of occupations or work environments as a basis and without testing the work ability of the individual may appear foreign in a Swedish context. One and the same occupation can be more or

less strenuous for different people. Some people who have had a strenuous occupation can probably work until retirement without major problems, while others who have had an occupation that is not classified as strenuous may have difficulty working until retirement. This can mean that some people cannot retire early, despite the fact that they need to and that others can retire early even if they do not need to, depending on how their occupations are classified. However, one advantage of this solution, is that it can be preventive for the individual because it does not require an already worsened state of health.

The option of early retirement can also reduce mobility from strenuous occupations as a result of the early retirement benefits among those people who are close to the age for retirement.

Under the Swedish pension system, those who use the option of early retirement after working in a strenuous occupation will receive a lower pension. In other countries, there are solutions to this problem through higher employer contributions or other contributions for certain occupations in order to fund the costs of early retirement.

Part-time solutions for older adults

Part-time solutions made available several years before retirement may be an alternative to early exit

In some countries there are part-time solutions available that make it possible for people to retire early. Some countries have partial retirement options, which means that the individual can draw part of the pension in order to compensate for a decrease in working hours. In other countries, it is possible for people approaching the pension age to work part-time without drawing a pension. This option has usually been subsidised, partially by the State and partially by the employer. In recent times, subsidised solutions have been abolished in many countries. There are also part-time solutions available that make it possible to stop working entirely a few years before reaching the pension age and receive a part-time salary.

There is significant variation between the countries in terms of the age at which an individual can make use of a phased solution. In

some countries, it is possible several years before reaching the pension age, in some countries it is at the same time as the earliest point at which an old-age pension can be drawn and in others it is only possible once an individual reaches the retirement age determined by the Government.

Part-time solutions can have positive or negative effects on the supply of labour depending on how the solution is designed

Part-time solutions for older adults have the advantage that they can prolong working life of people with poor health. Furthermore, part-time solutions for older adults can reduce the differences that exist in pension income between groups.

Subsidised part-time solutions are often subject to criticism for being expensive, and solutions that are not subsidised are often unattractive to employers and employees from a financial perspective. However, whether part-time solutions are attractive to employers and employees from a financial perspective or not depends on the design of the solution.

Part-time solutions run the risk of not including the right group of people. The experiences from other countries show that the uptake of part-time solutions is lower than expected and that few people take advantage of this option for early retirement. It might also be the case that individuals in strenuous occupations have fewer possibilities for part-time work than what they would have in other occupations.

Reduced work ability

Reduced work ability provides the possibility of some form of disability pension, sometimes with lower requirements for older adults

In the countries that we have studied, there are social insurance benefits that can work as a form of early retirement. The benefits are similar to those of the Swedish health insurance system, but in some countries, there are benefits that are targeted specifically at individuals who are approaching the standard pension age.

Common to all the countries is the fact that this option of early retirement is only granted following examination on an individual case-by-case basis. The inability to work is a condition for disability pensions in all countries, but additional conditions are imposed and differ between countries. There are also differing requirements between the countries regarding the time for which the reduction in work ability has to last in order to give the right to an allowance.

There are also differences between the countries with regard to the type of work or occupation against which the work ability is evaluated. In some countries, work ability is assessed against the ability to carry out any type of work at all, in other countries it is evaluated against the ability to carry out a particular job, for example the work carried out by the individual before the work ability became impaired.

Early retirement as a result of a reduced work ability does not always include the right group of people

The disability pension (*sjukersättning*) is a social insurance benefit that is already available in Sweden, but it no longer works as an option for early retirement in the same way as it does in some other countries. A reformed disability pension could also function as an early retirement option in Sweden.

Two problems with using disability pensions as an early retirement are firstly the financing and secondly the fact that the pension will be lower for those who use the option. With regard to the level of pension, some countries supplement income from disability pensions with earlier payments from the occupational pensions. There are also cases in which calculation of the disability benefits includes the number of working years, so it will be higher for those with a long working life.

The group we are investigating does not necessarily benefit from disability pensions. In its commission, the Government highlights individuals with a long working life, in particular those who have been employed in heavy work with low incomes. Not everyone who has a long working life in a heavy occupation will receive a disability pension unless the design of the disability pension is changed.

Our study includes countries in which there are less strict conditions for disability pensions or equivalent forms of allowance at older ages. The options for early retirement may be increased under such less strict conditions. One solution may be to introduce less strict rules for individuals who meet the requirements for a long working life or strenuous work.

Unemployed older adults

Under certain circumstances, older people who become unemployed may stop working earlier with some form of transitional pension

There are several options for early retirement for unemployed older adults in the countries we have investigated. One solution is for those who are unemployed to be able to retire early in the event of unemployment. There are also solutions in which older workers receive a reinforced or extended unemployment benefit, which they can use until they draw a regular pension.

All options for early retirement for unemployed older adults have an age requirement. The age requirements differ between countries and range from the age of 57 to 65 and in some countries the age limits are different for women and men. In addition to being unemployed and having a certain age, some countries impose further requirements on those who want to retire early. The requirements can be a minimum number of years with qualifying income for pension, social insurance or unemployment insurance.

Some countries recognise only certain types of unemployment to qualify for early retirement. An example is that the unemployment has to be a result of adjustments in the labour market. It can also be that the requirements differ depending on whether the unemployment is voluntary or involuntary.

The general rule is that early retirement or extended periods of unemployment result in a lower pension. Early retirement can be financed via the pension system, unemployment insurance and other ways.

The option of early retirement in the event of unemployment increases unemployment among older adults but can result in a better pension for some

For those who become unemployed in old age, the option of early retirement or extended unemployment benefits can be a source of security. In the event of involuntary unemployment, older adults may feel compelled to draw a pension earlier than what they had planned under the Swedish pension system in which it is possible to draw a pension from the age of 62. This leads to a reduced pension. The option for early retirement in the event of unemployment or extended unemployment benefits can counteract lower pensions in cases of involuntary unemployment.

A disadvantage of extended unemployment benefits is that it can lead to increased unemployment and to more older people exiting the labour market early. Extended unemployment benefits have led to increased unemployment in some countries. Involuntary unemployment is increasing primarily among older adults, in particular among older adults on low income and with weak attachment to the labour market. Older individuals who do not have the option of negotiating their retirement are the most affected if the right to unemployment benefits is changed.

Option of early retirement or the option of a healthy working life? - A concluding discussion

In the report, we address the options for early retirement first. The options for early retirement should be seen as a supplement to measures for a healthy working life and not as alternative. There are several such measures that may reduce the need for early retirement. Measures such as improved medical care and healthcare are an important part of the policy to enable more people to continue to work. The majority of people who leave working life early do so because they cannot continue working for health reasons.

A second group of such measures that can extend a healthy working life are those with the objective of improving the work environment. Many people are unable to continue working as a result of the difficulties and injuries they have sustained at work. An effective

work environment initiative can contribute to enabling more employees to continue working.

A third group of such measures is educational initiatives for adults. These can be targeted firstly at those who have lost or are losing their jobs due to structural changes and secondly, at those who can no longer work in the occupation for other reasons.

Glossary

Defined benefit pension scheme: Under a defined benefit scheme, the pension payment is calculated on the basis of a predetermined formula. The formula is usually based on the income, age and number of years of work for an individual. Under such a scheme, it is known in advance either how much the amount of the pension will be or what the pension will be as a proportion of the previous salary.

Defined contribution pension scheme: Under a defined contribution scheme, the pension payment is determined by the contributions made by the individual to the pension scheme and how the value of those contributions has developed until retirement. The return is also calculated using a formula that takes economic and demographic changes in society into consideration. It is a *defined contribution scheme*. Under a defined contribution scheme, the amount of pension that an individual will receive is not known in advance.

Pay-as-you-go: The term “*pay-as-you-go*” is used to describe how pension payments are used. This means that those who are currently working are paying the pensions of those who are currently retired. The alternative is a funded system in which those who are working save for their own pensions by making payments into individual accounts from which pension payments are paid out once they retire.

Occupational pension/employer pension: We use the terms occupational pension and employer pension interchangeably. It is a type of pension paid by the employer and is supplementary to the State pension. This is not available in all countries.

Strenuous work: The term ‘strenuous work’ is used to describe different occupations and working conditions that are either risky or laborious. The term, “workers in arduous or hazardous jobs” is

sometimes used. Different countries have different definitions and rules for what is considered as strenuous work.

Early retirement/early exit: Early retirement usually means that some type of pension is received before the normal pension age. Early exit can also mean that an individual is exiting working life with some form of allowance other than a pension. In the report, we use the term ‘early retirement’ to describe such options.

Sickness benefit/disability pension/sickness pension/early retirement pension: We use these terms interchangeably to describe an allowance or pension benefit that is received due to reduced work ability. Such allowances and benefits are given different names in different countries. Consequently, there is also some variation in the terms in our descriptions.

Pension contribution years: We use the term pension contribution years to describe the time that forms the basis for the right to a pension. This might be the number of years for which an individual is covered by an insurance, the number of years of payment of a minimum amount made to the pension or the number of years of work. There is variation between countries in terms of what is counted as pension contribution years.

Basic pension/guaranteed pension/social pension: These terms describe some form of basic protection that is available for retirees when they do not have a sufficiently high pension. There is variation between different countries in terms of the form of the basic protection and how it is funded.

1 A report on early retirement for certain groups

The Swedish Social Insurance Inspectorate (ISF) has been commissioned by the Government to compile and compare the ways in which it is possible to retire early in other comparable countries. This involves a comparison of the effects and driving forces of the different systems and highlighting both the advantages and disadvantages of each. The commission also includes a directive to analyse the options for early retirement in relation to the Swedish system.¹ In particular we are investigating the options for early retirement for individuals with working lives spanning many years and groups that have been employed in heavy work and at lower incomes. This report is our response to the commission from the Government

Consequently, the purpose of the report is to describe and analyse options for early retirement for certain groups that have been introduced by other countries and to report on how these options relate to the Swedish pension system.

1.1 Challenges faced by the Swedish pension system

Just like the systems in many other countries, the Swedish pension system is facing many challenges. One such challenge is that people are living for longer and longer while there is a simultaneous decrease in the number of people entering the labour market. This leads to a lesser number of people working having to support more retirees.

¹ Regeringens beslut den 19 november 2020 (The Government decision of 19 November 2020), S2020/08536, Uppdrag att sammanställa en komparativ analys av tidig pensionering (*Commission to compile a comparative analysis of early retirement*).

The pension system in Sweden was reformed from a defined benefit scheme to a defined contribution scheme to address this problem. Furthermore, measures were introduced that can contribute to raising the retirement age. Such measures include raising the minimum eligible age at which an individual can start drawing a pension and raising the maximum age at which a person is covered by the Employment Protection Act. It has also been made more difficult to use alternative ways in which to exit the labour force early. Similar and other measures have been introduced in other countries that in many cases, are facing even greater challenges with an ageing population and low birth rates.²

All employees are not able to or can work up to the new increased age limits. And some employees are not able to work until the previous minimum age under the pension system. As a result, it is relevant to study options for early retirement for those who are unable or cannot work until a higher age.

1.2 Conduction of the analysis

In this section, we describe our choice of pathway and methods. Our mission is to provide an overview of the options for early retirement that are available in several other comparable countries. We have initially chosen to focus on the Nordic countries as they have a welfare system that is similar to that of Sweden. We have then continued to investigate options for early retirement in countries throughout the rest of Europe. We have gathered examples from different countries until we could find no new examples of options for early retirement.

To describe the options for early retirement in other countries, we have used different sources, primarily written. We have referred primarily to scientific literature and the official descriptions of the pension schemes from the countries themselves. Furthermore, we have read reports, compilations and comparisons from international organisations including the Organisation for Economic Co-operation and Development (OECD), The International Social Security Association (ISSA), the International Federation of Pension Funds

² Hofäcker D., Hess, D. and König, S. (Eds), *Delaying Retirement. Progress and Challenges of Active Ageing in Europe, the United States and Japan*. Palgrave Macmillan 2016.

Administrators (FIAP) and Mercer. We have also used contacts in the different countries primarily at universities and research institutes to gather information and get feedback on our texts.

Several challenges were encountered in the information gathering and report writing stages. Sometimes the information from the different countries was only available in the original language. In such cases we have used our own translations. Our translations to Swedish required some simplification and it was not always possible to use the same terms for all countries. As a result of the language barrier and the differences in the design of the social insurance systems, in some cases it was difficult to find the right sources. Furthermore, it has not always been possible to have international experts to fact-check our texts as they were written in Swedish and we had only a short period of time in which to carry out the commission. Our country review therefore consists primarily of our own interpretations of different official documentation, legal texts and data.

1.3 Report outline

Chapters 2, 3 and 4 include an in-depth background to the development towards an ageing population, the measures that have been taken to get more people to work for longer, the problems faced by many countries and the solutions that we have in the Swedish social insurance system. Chapters 5, 6 and 7 describe the options for early retirement that were found in other countries and present the conclusions we draw from the experiences of these countries.

Chapter 2, outlines a continued background to the commission with which we have been tasked. We describe the demographic development in Sweden and other countries, alongside the challenges posed by the ageing population.

Chapter 3 includes a description of the Swedish pension system and the changes made to this system in recent decades, as well as the main features of the current system.

Chapter 4, reports on several measures of a more general kind that are employed in Sweden and other countries for the purpose of enabling a long but healthy working life. Such measures are not really enabling early retirement but it is our opinion that they are worth highlighting in this context.

Chapter 5 presents the options for early retirement that we have identified in other countries. In this chapter, we emphasise certain fundamental issues concerning options for early retirement, irrespective of the details of how they are used in different countries.

Chapter 6, presents the options for early retirement in a number of countries. Here we initially provide a brief report on the pension systems of the selected countries and then turn to the options for early retirement that are available in each country. The reader will get more details here than in Chapter 5, which facilitates continued comparisons with the Swedish pension system.

Chapter 7 concludes and summarises our review and analysis. We re-address the different types of early exit measures that have come to our attention. We then address both which options are available for implementing the different types of measure and the problems associated with these measures.

2 An ageing population – a challenge for the pension system and other parts of the social insurance system

In Sweden and many other countries - in particular high-income countries - the population development is in the direction of an ageing population. More people are living to an older age and fertility is lower than what is needed in order for the population to not continuously decrease.

Mortality has decreased over time. Those who are now turning 60 are expected to live for more years than those of previous generations did when they reached the same age and now at a given retirement age, older adults have more years of receiving a pension.

Statistics Sweden (SCB) has done a forecast of development trends in the population up to 2070. It points to a continued development towards an increasing number of people living to old age.³

In the long run, the combination of increased life expectancy and low fertility contribute to a lesser proportion of the population being at an active age, the age at which the majority is gainfully employed. An increasing proportion will come to be at an age when there are fewer people in the labour force - some are children but it is primarily many older people. This trend towards having a reduced proportion of the population in the labour force is reinforced by the fact that the entry into work life is taking place later because young people are being educated to a higher age than before.

³ Statistics Sweden, Sveriges framtida befolkning (The future population of Sweden). Demographic Reports 2021:1.

2.1 Falling birth rates

Low rates of fertility are one of several challenges faced by the pension system and other parts of social insurance.

In order for the trends in fertility (“*fertility rate*”) to be consistent with a country having a constant population apart from international migration, it needs to be somewhat more than 2 (2.1). In 2017 the fertility rate in Sweden went up to 1.84, which at the time was the highest in Europe along with France. It was significantly lower in Southern Europe, where it was 1.42 in Greece, 1.33 in Italy, 1.35 in Spain and 1.29 in Portugal. The fertility rate was also very low in several other countries in Europe, such as Switzerland at 1.50, Germany at 1.42 and Austria at 1.51. The fertility rate was even lower in several of the highly economically developed countries in East Asia. In 2017, it was 1.33 in Japan, 1.24 in South Korea and only 1.04 in Taiwan.⁴

In 2020 the European Commission reported data on population trends in different countries in the EU and regions within these countries during the period 2011–2019. The data shows that along with several other countries in the EU, Sweden has had a growing population in all or almost all of its regions (counties or equivalent).

The low fertility rates indicate that there will be a gradual decline in the population, in particular in the majority of the highly economically developed countries in the world. For some countries such as Sweden, this trend is countered by immigration while for other countries it is reinforced by emigration. An article in *The Lancet* reports population forecasts for every country in the world up to 2100 given current values for fertility, mortality and migration with several alternative assumptions about their development. Sweden is one of the few highly economically developed countries for which an unchanged population is expected while Southern European countries are expected to have halved their populations by 2100. The countries in East Asia referred to above are expected to have even more significantly reduced populations and then with accompanied by bigger challenges with regard to the proportion employed in the population (see Table 1). Countries will be taking measures to

⁴ Vollset S.E., et al., Fertility, mortality, migration, and population scenarios for 195 countries and territories from 2017 to 2100: a forecasting analysis for the Global Burden of Disease Study. *The Lancet*, 2020;396:1285–1306.

counteract the trends towards sharply declining populations. The extent to which such measures will succeed is unclear.

Table 1. Population in millions in 2017 and 2100 given current trends in fertility, mortality and migration in a selection of countries in Europe and East Asia

<i>Country</i>	<i>Population 2017</i>	<i>Population 2100 in reference case</i>
Sweden	10.0	13.1
Bulgaria	7.0	2.6
Estonia	1.3	0.8
Italy	60.6	30.5
Poland	38.4	15.4
Portugal	10.7	4.5
Spain	46.4	22.9
Great Britain	66.6	71.4
Germany	83.3	66.4
Japan	128.4	59.7
South Korea	52.7	26.8
Taiwan	23.6	10.9

Notes: The data in the table is indicative of current trends and not realistic forecasts.

Source: Vollset S.E., et al., Fertility, mortality, migration, and population scenarios for 195 countries and territories from 2017 to 2100: a forecasting analysis for the Global Burden of Disease Study. *The Lancet*, 2020;396:1285–1306.

2.2 Decreasing differences in longevity and a more equal number of years with good health

Longevity is increasing at the same time as the age of retirement is increasing, but there are still differences in expected life expectancy for different groups. This may be related to the issue of whether there should be different retirement ages for different groups.

The mean values for mortality and life expectancy mask the fact that there are big differences between different groups in a country, such as between women and men and between different educational groups and income groups. Nor does number of years for which a person is older say anything about whether it is a life of good health or poor health.

Longevity is increasing but there are differences between different groups. In Sweden, life expectancy for women is 2.4 years higher at the age of 65 than for men of the same age. This difference has become smaller in recent decades and according to the population forecast from Statistics Sweden it is expected to continue to decrease. There is no difference between the sexes in the number of remaining years of good health. The expectation is 16 years of good health for both men and women at the age of 65.⁵

There are also differences in expected longevity between different socioeconomic groups. At the age of 30, people with the highest level of education have higher longevity than those with the lowest level of education with three years for women and four years for men. Compared to other European countries, these differences are quite small. Differences in income levels may help to explain some of the gap between groups with high levels of education and groups with low levels of education.⁶ But the differences in the number of years of good health for different levels of education are usually larger than those between different income groups.⁷ The increase in longevity over time is the lowest among women with low levels of education.⁸ There is a lower expected life expectancy for some occupational groups of up to 3.5 years. This usually applies to occupations with low levels of qualifications.⁹

⁵ Statistics Sweden, Sveriges framtida befolkning (The future population of Sweden). Demographic Reports 2021:1.

⁶ OECD, *Health at a Glance*. 2020.

⁷ Mäki N., et al., Educational differences in disability-free life expectancy: a comparative study of long-standing activity limitation in eight European countries. *Social Science & Medicine* 2013;94:1–8.

⁸ Jämställdhetsmyndigheten (The Swedish Gender Equality Agency), Lågutbildades kvinnors medellivslängd ökar inte i samma takt som andra grupper (Longevity for women with low levels of education is not increasing at the same rate as that for other groups). *Analys i korthet* (A brief analysis) 2020:1.

⁹ Deeg D., De Tavernier, W. and de Breij, S., Occupation-Based Life Expectancy: Actuarial Fairness in Determining Statutory Retirement Age, *Frontiers of Sociology*, 2021; 6: 161.

Individuals with higher incomes and thus higher pensions live longer on average and therefore receive pensions for a longer period.¹⁰ This system is partially funded by the fact that others have a lower expected life expectancy.

2.3 Population trends and the proportion employed

Population trends have an impact on the proportion of the population that is employed. The proportion of employed in Sweden during recent decades can be summarised with reference to the fact that initially for men, there was a gradual decrease in the proportion employed, which then transitioned into a gradual increase. By contrast, for women there has been a continuous increase in the proportion employed throughout the entire period - something that reflects the gradually increasing entry of women into the labour market.¹¹ We can also see that the crisis in the 1990s had a clear effect on employment for men as the proportion employed dropped significantly during the years of the crisis. Crises can have a significant impact on employment for older adults. Admittedly, older people are less likely to be unemployed than younger people but when they become unemployed, older adults often have longer periods of unemployment or leave the labour force to a greater extent than what is the case for younger people who become unemployed. This highlights the significance of measures for older adults who lose their employment.

Trends in the proportion of older adults employed in other OECD countries indicates a broadly similar pattern to that in Sweden.¹² An

¹⁰ Statistics Sweden, Livslängd och dödlighet i olika sociala grupper (Life expectancy and mortality in different social groups), Demografiska rapporter (Demographic Reports) 2016:2.

¹¹ Boissoneault M., et al., A systematic review of causes of recent increases in ages of labor market exit in OECD countries. *PLOS ONE* 2019; 15 (4). For trends in Great Britain that are reminiscent of those in Sweden, see the Office for National Statistics. *Living longer and old-age dependency - what does the future hold?* 2019.

¹² Oshio T., Oishi, S. and Shimizutani, S., Labor force participation of the elderly in Japan. *NBER Working Paper* No. 24614. 2018.

Milligan K.S. and Schirle T., The labor force participation of older men in Canada. *NBER Working Paper* No. 24874. 2018.

Coile C., Working longer in the U.S.: Trends and explanations. *NBER Working Paper* No. 24576. 2018.

Börsch-Supan A. and Ferrari I., Old-age labor force participation in Germany; What explains

investigation into the G20 countries shows that during from 2001–2018, the proportion working in the vast majority of these countries increases in both the 50–64 and the 65–69 age groups.¹³ The exceptions are primarily several non-European countries for the 50–64 age group and for some countries in Southern and Central Europe for the 65–69 age group.

The fact that the number of people in old age is increasing means that both the costs of pensions and the cost of care are increasing. The latter is primarily applicable to those who aged 80 years or older. This trend is partially countered by the fact that the state of health has improved given the age of the individuals, see Atelia et al. (2020) for the trend in Europe with regard to the state of health of the older part of the population. This means that the costs of public finances are not increasing at much as would otherwise be the case.

2.4 Measures to counter the economic effects of the increase of the older adult population

For a long time, the trend towards a lower proportion of the population being in the labour force has been monitored and measures to counter the trend have been taken. Here we provide a brief report on the most important of such measures.

- The purpose of one such measure is to facilitate for young people to establish themselves on the labour market at a younger age, but not through receiving a lower level of education but rather through the studies being completed faster and that the transition from study to work is shorter once studies are completed.

the trend reversal among older men? And what the steady increase among women? *NBER Working Paper* No. 24044. 2017.

¹³ Dimitriadis, S. and Swain, P., *Health equals wealth. The global longevity dividend*, International Longevity Centre UK, 2020.

- Women have significantly lower rates of labour force participation than men in many European countries. By contrast, women often have much greater responsibility for taking care of children in the family as well as general housework and also often taking care of older relatives. However, the trend is moving towards a higher level of labour force participation among women in Sweden, as well as in other European countries. The difference between labour force participation for men and women in Sweden is much smaller than it is in the majority of other countries. But women more often work part-time and usually for longer periods in part-time work (20-34 hours/week) than what men do in Sweden. Measures for increasing both labour force participation among women, as well as the proportion of women working full-time may also contribute to both labour force participation and the number of hours worked in the economy being bigger.
- Some groups have significantly lower labour force participation than others. This is applicable to people with disabilities, young people with a shorter period of education (upper secondary education not completed) and refugees, in any case during the first years in the new country. Measures that help these groups with finding work may contribute to that an increased proportion of the population being employed.
- The fourth group with lower labour force participation is older adults. Increasing the labour force participation among older adults is a way in which to increase labour force participation and employment. In many countries, such measures have already been taken or are planned to be taken. These measures and the complications they can give rise to are the focus of this report. Consequently, we address them in more detail in the next chapter. We will then return to such measures in significantly more detail in the following chapters of this report.

3 Pension schemes and forms of allowance for early exit in Sweden

The pension system and social insurance consist of different parts that have changed over time. All forms of allowance may be relevant in association with the options for early retirement.

3.1 Development of the pension system in Sweden

Parliament rendered a decision on a general pension system in 1913.¹⁴ It came into effect in 1914. It was a combination of a premium reserve system and a redistribution system. At the time, there had been occupational pensions in place for some groups for a long time. They later gradually became supplements to the public pension system. The national system underwent changes and from 1948 it became a national pension system with a fixed amount for everyone registered in the population register. In addition, there were three supplementary occupational pension schemes for employees of the State, county councils and municipalities, as well as for white-collar workers in the private sector. Ten years later, a decision was rendered regarding ATP – a national supplementary pension, which was a defined benefit pension scheme. The 15 years with the highest level of income determined the level of pension (there was a ceiling for which part of the incomes was included). A full pension required 30 years with a minimum income. There were supplements in the form of occupational pensions. In the 1970s, supplementary occupational pensions were also added for blue-collar workers in the

¹⁴ Edebalk P.G., Ståhlberg, A-C. and Wadensjö, E., *Socialförsäkringarna: ett samhällsekonomiskt perspektiv*. SNS, 1998.

private sector. Since the start of the national system in 1914, the pension age had been 67 years of age but it was lowered to 65 years in 1976. In practice, many people already had a pension age lower than 67 years through occupational pension schemes. Those who were self-employed did not have the option of early retirement through such a scheme.

In the 1980s demands were made for changes in the pension system in order to manage financing problems which were due to a combination of that life expectancy increased faster than expected and less economic growth than that at the time the ATP system was introduced. A commission generated a proposal consisting primarily of parametric changes to the ATP system (such as an increase of the number of years of income required to receive a full pension).¹⁵ The proposal was rejected and a new enquiry resulted in another proposal that was adopted by Parliament and introduced in different stages from 1994 onwards.¹⁶ The new system is a defined contribution scheme - an income pension system in which a minor part is allocated to premium pensions. There is a ceiling for which income contributions must be paid and form the basis for the pension. As life expectancy rises, younger age cohorts receive lower pensions than previous cohorts if the pension age does not increase.

In addition to the income pension system, there are occupational pensions that are of particular importance for those with income above the ceiling in the income pension system. Those two parts of the pension system referred to here - are supplemented for some by private pensions.

3.2 The current Swedish pension system

Similar to other countries, Sweden now has three systems for old-age pensions that complement each other - namely a national pension system, occupational pensions and private pensions. First of all, there is the national pension system, which in Sweden is now a defined contribution scheme after having previously been a defined benefit scheme. Secondly, there are occupational pensions that cover the

¹⁵ SOU (Swedish Government Official Reports)1990:76 Allmän pension (National pension).

¹⁶ SOU (Swedish Government Official Reports) 1994:20 Reformrat pensionssystem (Reformed pension system).

majority of salaried employees and also parts of the self-employed group. Thirdly, there are private pensions of which there are fewer in Sweden compared to the situation in other countries.

There is also a supplement in the form of a guarantee pension, which is paid from the age of 65 for those who have little or no old-age pension. The guarantee pension is funded outside the income pension system from the state budget. The plan is to raise the minimum age from which a guaranteed pension can be drawn from 65 to 66 in 2023. There will be exceptions for those with at least 44 years of working life (see Socialdepartementet, 2017).

From 2020, old-age pensions from the income pension can be drawn from the age of 62 (the minimum age was previously 61).¹⁷ There is a ceiling for the income that is covered by the income pension system. This means that those with incomes higher than the ceiling do not have their full income covered by compensation from the pension system.¹⁸

The income pension can be drawn in the form of $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ or full pension. This is applicable irrespective of the age at which it is first drawn, i.e. regardless of whether the pension is drawn early or late, it can be drawn in any of these four forms.¹⁹ For some people, being able to draw the pension as part of a full pension facilitates a gradual retirement before the normal pension age and also makes it easier for those who want to continue working but with reduced working hours after the normal pension age.

It is important to work for many years to get a high pension under the income pension system - every year with income earned has an impact on the amount of the pension. In the previous ATP system, 30 years was enough to be able to get a full pension while the 15 years with the highest income were used to determine the level of the pension. That all years with income earned are now counted, has a negative effect on people not born in Sweden, as this group often does not have as many years with income earned in Sweden as those who were born in Sweden. People born in other countries than Sweden have therefore often paid contributions to the income pension scheme for fewer years than those who were born in Sweden. See

¹⁷ Chapter 56, Section 3 (1) Social Insurance Code (SFB).

¹⁸ Chapter 59, Section 4 (2) SFB.

¹⁹ Chapter 56, Section 2 (1) SFB.

Statistics Sweden (2012) for information regarding people of retirement age who were born outside Sweden.

3.3 A changed norm of drawing a pension at 65 years of age

Despite the option of choosing a retirement age in the public pension system (income pension scheme), it has long been the norm to draw a pension in the month that you turn 65 years of age. This norm has been gradually weakened. An increasing number of people are starting to draw their pension either before or after they have reached this age. This trend can be seen in Table 2.

Table 2. Trends in age with news grants of national pension for different age groups

<i>Age group (year of birth)</i>	<i>Proportion (%) starting to draw pension at 61 years of age</i>	<i>Proportion (%) starting to draw pension at 65 years of age</i>	<i>Proportion (%) starting to draw pension at 67 years of age</i>	<i>Average age when starting to draw pension</i>
1938	3.6	77.2	3.2	64.9
1939	3.9	75.6	2.3	64.9
1940	3.0	75.7	2.6	65.0
1941	2.9	73.1	2.8	65.0
1942	3.4	70.8	3.4	64.9
1943	3.9	66.3	4.4	64.9
1944	4.7	63.0	4.0	64.9
1945	5.1	61.5	4.0	64.8
1946	6.0	59.1	4.2	64.7
1947	6.3	56.7	4.7	64.7
1948	6.0	54.6	5.0	64.7
1949	5.8	52.2	5.4	64.7
1950	5.8	49.8	5.4	64.7
1951	6.5	47.5	5.5	64.7

<i>Age group (year of birth)</i>	<i>Proportion (%) starting to draw pension at 61 years of age</i>	<i>Proportion (%) starting to draw pension at 65 years of age</i>	<i>Proportion (%) starting to draw pension at 67 years of age</i>	<i>Average age when starting to draw pension</i>
1952	6.8	44.3	6.0	64.7
1953	7.7	41.8	5.1	64.6
1954	7.5	40.3		
1955	7.5	39.3		

Source: Pensionsmyndigheten (The Swedish Pensions Agency). *Pensions system annual report. Orange Report 2020* and Pensionsmyndigheten (Swedish Pensions Agency). *Pensions system annual report. Orange Report 2021.*

The table shows that the average age at retirement is almost entirely stable but that the proportion that start drawing their pension at the age of 65 gradually decreases. It can already be seen that the proportion that does so continues to decrease for the cohorts born in 1954 and 1955, although it is not possible to calculate the average age of retirement for these age groups at present because many have not yet started to draw a pension. There is a steady increase in both the proportion that takes out a pension before the age of 65 and the proportion that takes out a pension after the age of 65. We want to emphasise that many do not start drawing a pension and stop to work at the same time.

One explanation as to why more people start to retire after the age of 65 is that the age according to the Employment Protection Act has been raised to 67. It has enabled those who want to continue to work to do so. There is a gradual increase in the number of people drawing a pension at the age of 67 or at an older age.

An explanation as to why more people are starting to draw a pension before the age of 65, could be that it has become harder to be granted a disability pension. Those who want to leave the labour force before the age 65 or who are unable to continue working until the age of 65 and who previously would have been able to receive a disability pension, may instead choose to leave before turning 65 with an early drawing of an old-age pension. The proportion of people who are drawing a pension at the age of 61 has increased. Until 2020,

61 was the lowest age at which it was possible to draw an old-age pension from the national pension scheme. The proportion was 8.9 per cent for those born in 1958. This can be compared to the fact that this percentage was only 3.6 for those born in 1938.

A survey conducted by the Swedish Pensions Agency asked a sample of people aged between 70–75 whether they would have started drawing the pension at the same age, or chosen to draw it earlier or later if they had the option of changing their minds. The survey is based on responses from 1,514. Of those who responded, 65 per cent stated that they would have drawn the pension at the same age, 4 per cent at a younger age and 23 per cent at an older age and 9 per cent responded that they do not know.²⁰

3.4 Occupational pensions

Occupational pension schemes have also gradually become defined contribution in most occupational areas.²¹ This means that occupational pensions will become better coordinated with the national income pension system. It will also make it easier for those who change jobs that involve a change in the area of the occupational pension to receiving a pension that is income-based throughout working life from employment in different sectors. There are four major occupational pension schemes: for government employees, for employees in municipalities and county councils and employees in municipal companies, for white-collar workers in the private sector and for blue-collar workers in private sector. There are several minor occupational areas that have the same design for their pension systems as those in one of the four major systems, for example for bank employees and for employees of the Church of Sweden.

²⁰ Pensionsmyndigheten (The Swedish Pensions Agency). Blev det som du tänkt dig? En studie bland 70–75-åringar. (Did it turn out how you thought? A study of 70-75-year-olds). Reg. no. 2020-226.

²¹ Hagen J. and Elinder, M., *Den komplexa tjänstepensionen*, SNS, 2018.
ISF, Utvecklingen av kollektivavtalade ersättningar sedan 2000-talets början (The development of collectively agreed allowances since the beginning of the 2000s). ISF Report 2018:14.
Åmark K., De svenska tjänstepensionsavtalen 1947-2017. *Arkiv. Tidskrift för samhällsanalys*, 2019:11.
Hagen J., Pension principles in the Swedish pension system. *Scandinavian Economic History Review*, 2017;65(1):28–51.

The occupational pensions provide a supplement to the national pension for income under the ceiling in that pension system and a significantly higher compensation for income above the ceiling. It is important to be aware that there is also a gradual transition from defined benefit to defined contribution schemes within the occupational pensions system. One example is that employees of municipalities and county councils born in 1985 or earlier are covered by the old system and those born in 1986 or later are covered by the new system.

There are exceptions to this description of the different occupational pension schemes. Some groups have a lower age of retirement under such an agreement. Within the Swedish Armed Forces, this applies to those born in or before 1988 with the pension age being 61 years of age for professional officers, 60 years of age for air traffic controllers and 55 years of age for pilots if they have had 25 years of flight service and are working within the Swedish Armed Forces at the time of retirement. Some municipal employees also have a lower pension age. This applies to emergency service employees in which the retirement age for firefighters is 58 years. Earlier, a lower pension age than that in the national pension scheme was common for several other occupational groups.

Occupational pensions are also important in terms of options for partial retirement. Some employers' associations that are members of the Confederation of Swedish Enterprise have entered into agreements with trade unions regarding a phased pension premium for those who want a flexible pension. A flexible pension means that employees can reduce their working hours in the years before they retire completely through extra contributions to the occupational pension. Public sector employees can make use of collective agreements for defined benefit partial retirement solutions. Terms and conditions and contributions vary between different agreements.²²

The majority in the labour market in Sweden are covered by occupational pension schemes, but not everyone is covered. This applies to both some employees of smaller companies, as well as some employees of larger companies without collective agreements,

²² Pensionsmyndigheten (The Swedish Pensions Agency), Flexpension och delpension – En översikt inom de fyra stora avtalsområdena. (Flexible pensions and partial retirement - An overview of the four major occupational areas). Reg. no. 2017-247, 2017.

primarily in new and fast-growing firms. Above all many self-employed people are not covered.

We will take a closer look at the occupational pension for government employees. Gradual changes in the pattern has been taking place. Previously, the month in which someone turned 65 years of age was the most common month in which to start drawing a pension. Now, it is the month in which an employee turns 67 years of age that is the most common. See SPV (2019), SPV (2020) and SPV (2021). Table 3 shows some of the changes in the pattern with respect to the age at which pensions are starting to be drawn by employees in central government service. It is clear that the proportion of people who start drawing a pension in the month in which they turn 65 years of age decreased up to 2020. The development in 2020 may be affected by the Covid-19 pandemic.

Table 3. New old-age pensions by withdrawal age and year in central government 2013–2020 (percentage distribution)

<i>Proportion who are drawing...</i>	<i>Year</i>							
	<i>2013</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>
...after the month they turn 65	49	52	51	52	51	51	51	46
...in the month they turn 65	28	24	22	19	19	18	17	19
...before the month they turn 65	23	24	27	29	30	31	32	35

Notes: Only those with a retirement age of 65 are included.

Sources: SPV, Retirements within central government. Statistics Report 2019, SPV, Retirements within central government. Statistics Report 2020 and SPV, Statistics Report 2021.

3.5 Social insurances that can provide support in the event of early retirement

If we go a little further back in time, one social insurance from which many people are receiving an allowance and from which significantly more have received an allowance, is the disability pension (formerly known as early retirement pension – förtidspension).²³

The proportion who receive a disability pension is higher with advanced age up to the upper age limit for a disability pension which is 65 years. During the early 1970s, the rules were changed so that it became possible to receive a disability pension, initially for a combination of labour market reasons (unemployment) and illness from July 1970 and in the next step from July 1972 only for reasons associated with unemployment. In practice, this meant the right to a disability pension when the right to an unemployment benefit was exhausted for those who were older (63 years of age and over during the first years after the rules were changed and from the age of 60 from July 1974). This type of disability pension was referred to as “58 comma 3 pensions” because at this time the unemployment benefit could be paid for a maximum of one year and nine months. This means that those who started receiving unemployment benefits from the age of 58 years and three months could do so until they turned 60 years of age and would then receive a disability pension until they turned 65 years of age. The option of taking labour market reasons into consideration when granting a disability pension was removed in two stages in the 1990s. Later, further tightening of the rules have been undertaken making it more difficult to get a disability pension. The number of people receiving disability pensions has therefore decreased markedly. A disability pension is now a pathway to early retirement from working life for significantly fewer people than what it has been.

The decreasing number of people who are receiving an allowance in the form of a disability pension can be illustrated in different ways.²⁴

²³ Hagen, J., A History of the Swedish Pension System. Uppsala Center for Fiscal Studies, Working Paper 2013:7.

²⁴ Försäkringskassan (The Swedish Social Insurance Agency), Socialförsäringen i siffror 2019. (*Social insurances in numbers* 2019).
Försäkringskassan (The Swedish Social Insurance Agency), Förlängt arbetsliv – förutsättningar, utmaningar och konsekvenser (*Extended working life - prerequisites, challenges and consequences*). Social insurance report 2020:5.

One way is to look at the number of disability pensions that are newly granted. There were slightly more than 40,000 granted to women and just under 30,000 granted to men in 2004. In 2020, the combined total for both men and women was only 5,700 (men and women had about the same number) disability pensions granted. Of those in the 60–64 years age group, 15.9 per cent of women and 10.1 per cent of men received a disability pension in 2019, while 11.0 per cent of women and 6.8 per cent of men in the 55–59 years age group received a disability pension in 2020.²⁵ Many receive a part-time allowance. In an earlier report, ISF related the decrease in the number of disability pensions to that many took an old age pension at an age lower than 65.²⁶

Few people receive an allowance from the occupational injury insurance following occupational accidents or occupational illnesses. Most allowance periods are for the short-term and are covered by the health insurance. Occupational injury insurance is a secondary insurance that is included in the support when the health insurance does not provide full compensation.

Finally, there is an allowance through maintenance support from the municipality, which is a possibility of receiving financial support during the years leading up to retirement. Maintenance support is an income-tested allowance.

Overall, the options for receiving a satisfactory allowance from other social insurances in the event of an early exit from the labour market are currently considerably less than they have been in previous years.

3.6 Measures to increase employment among older adults

Several of the changes implemented for the purpose of increasing employment among older adults concern the old-age pension system. A study based on data from 15 OECD countries indicates that these changes have had the desired effect. They are contributing to people leaving the labour force at an older age and to more people being

²⁵ Försäkringskassan, Social insurances in numbers 2021.

²⁶ ISF, Striktare sjukförsäkring och tidig ålderspensionering (Stricter health insurance and early retirement). Report 2014:7.

employed in the 55–64 years age group.²⁷ These changes consist of not one but several different measures. A first measure is the changing of the old-age pension system from a defined benefit system to a defined contribution system. The change in Sweden was from the ATP system to the income pension. The purpose of such a change is firstly to manage pension financing and secondly, to provide stronger incentives for later retirement and later exit from working life. In the event of later retirement, the monthly pension that an individual will receive after having started drawing their pension increases. The second change is increasing the age at which the employee has the right to continued employment, an increase in the employment protection age (mandatory retirement age). This increase in retirement age has been gradual in Sweden, from 65 years of age to 67 years of age in 2003 and to 68 years of age in 2020. In accordance with the plans, this will be raised again to 69 years of age in 2023 and according to the plans, it will be raised even further in the future.²⁸ The third change is raising the minimum age for drawing a pension from the public pension system. This age has also been raised gradually and from 2020 is set at 62 years of age from having previously been raised from 60 to 61. In accordance with the plans, this age will be raised to 63 in 2023.

It is important here to also pay attention to the design of the occupational pension schemes and how they are regulated. They have developed in the same direction as the public pension system and are now defined contribution schemes, although the change of system is taking place gradually for some of the occupational pensions in which older birth cohorts are covered by earlier defined benefit schemes.

Other measures have also been implemented in the social insurance systems for the purpose of promoting later retirement or to counteract early exit. This includes reduced options for receiving early retirement pension/disability pension and also shortening the period for which older adults can receive an allowance from the unemployment insurance in the event of unemployment. An additional measure is that the minimum age for occupational pensions

²⁷ Kuitto K. and Helmdag J., Extending working lives: How policies shape retirement and labour market participation of older workers. *Social Policy Administration*, 2021;55-3.

²⁸ Socialdepartementet (Ministry of Health and Social Affairs), Pensionsgruppens överenskommelse om långsiktigt höjda och trygga pensioner (The Pensionsgruppen agreement on long-term increased and secured pensions). 2017.

is set at 55 years. Private pensions have also become significantly less advantageous from a taxation perspective.

There are also significant differences in employer contributions depending on the year of birth, i.e. the age of the employee. In 2020, the employer contribution for those born in 1937 or earlier was 0 per cent and 10.21 per cent for those born in 1938–1954 (it was the same for young people born in 2002–2004). The employer contribution for others was 31.42 per cent. Even for the self-employed, there are differences in national insurance contributions between different age groups, which to a large extent but not entirely are equivalent to the differences in employer contributions for those who are employees. Furthermore, there are differences in the fees that further reinforce the differences between what employers must pay in addition to the salary for employees in different age groups. These differences in contributions by age could mean that employers are more inclined to employ older adults than they otherwise would have been, and to some extent can be seen as a policy for increasing the proportion of older adults who are employed.

Changes of the pension system in the direction of an older age at retirement may be perceived as something positive by many - something that provides higher pensions and increased options for the continuation of a meaningful working life, but it may mean a clearly worse situation for others. They are not able to continue working to an older age now than they would have done under the previous rules and they may often have a period of low and uncertain income until they can start receiving an old-age pension. When they are not able to receive other allowances such as disability pensions, they may feel compelled to take an old-age pension at the lower age limit. We pay special attention to this group in this report - those who have difficulty continuing to work until an older age and measures that are intended to help this group in different ways.

A related issue is the effect that a change in the retirement age and age for leaving gainful employment has on both health and mortality. A Norwegian study using a natural experiment in which the retirement age was changed for some but not for others did not demonstrate any such effect.²⁹

²⁹ Hernaes E., et al., Does retirement age impact mortality? *Journal of Health Economics*. 2013;32(3):586-598.

Quite a few of those who have not yet reached the minimum age to be able to start drawing an old-age pension need to leave the labour force early and therefore also need an allowance that renders this possible.³⁰ But there are some forms of policy that can be effective - namely measures that facilitate for people to remain in working life. It might be measures for improving the work environment in the occupations and industries in which many people are leaving the labour force early. It can also be measures that facilitate a change of occupation or work tasks at an age that reduces the need for an early exit from working life. Measures from both employers and different joint-interest institutions for unions and employer associations are important. The active policies pertaining to the labour market can also play a very important role.³¹ This group of measures also includes different types of measure that mean that those who have reached a certain age can receive a partial pension, without the old-age pension being fully reduced upon full retirement. We will return to this issue in later chapters.

3.7 Measures that make it possible to leave the labour force before normal pension age

Even with a good design behind such measures as those described in the section above there will be people who are unable to work up to the age that is the minimum pension age under the national systems, in neither Sweden nor in other countries. Consequently, it is important to find solutions for those included in this group. It is also important for Sweden to learn both from its own experiences and also from the experiences of other countries. This is the primary purpose of this report.

There are many measures such as those described above and it is possible to divide them into two main groups. The first is more general measures, which means that everyone who meets certain requirements is entitled to them and the second is individual

³⁰ Albin M., et al. *Äldre i arbetslivet – en omvärldsanalys* (Older adults in working life - an analysis of surroundings). Swedish ESF Council, Report 2017/00501-1.

³¹ Olofsson J. and Wadensjö, E., *Vuxenutbildning för arbetsmarknaden* (Adult education for the labour market), Background report for SOU (Swedish Government Official Reports) 2020:30, *En moderniserad arbetsrätt* (A modernised labour law). 2020.

measures, which are those available to individual on a tested case-by-case basis.

3.8 Some groups are facing special challenges

For many people the pension received after they have left working life at an older age and in good health is sufficient. Nevertheless, in some groups there are many who face significant difficulties in receiving satisfactory support. Here we address the issue of pensions for some groups that may face special challenges in the area of pensions: the self-employed, migrants and women.

Those who work as self-employed have occupational pensions to a significantly lesser extent than what other employees have. Some compensate for this through other solutions such as private pension schemes and savings. Many also continue to work as self-employed until old age. Of all gainfully employed people aged 15–74 years in 2020, 10 per cent were self-employed (or assisting household members), while the corresponding proportion for those aged 65–74 years was 39 per cent according to the Labour Force Surveys.³² Some of those who are elderly and self-employed have previously been employees and have started to be self-employed after they have retired and left being an employee. Not all self-employed people continue to work and there are some who do so who have low incomes during their older years. There is reason to pay attention to the conditions of those who are self-employed when they get older.

Another group is migrants. This especially applies to those who move to Sweden as an adult and have relatively few years of income earned that forms the basis for their pension in Sweden. This may apply to many of those who came to Sweden as refugees but also to others. It may also apply to some people born in Sweden who have worked for a number of years in another country and then moved back to Sweden. In such cases, they may have fewer years with pensionable incomes in Sweden than what others have. For some migrants, a

³² Statistics Sweden, Statistikdatabasen: Arbetskraftsundersökningarna 2021 (Statistics Database: The Labour Force Surveys 2021).

pension from a country other than Sweden can compensate for the fact that they receive a lower pension from Sweden.

A third group is women. It is more common among women than among men to have worked part-time for a number of years and consequently have received low income during these years and with the pension lower than they would have received if they had worked full-time.³³ Under the previous ATP system, the amount of the pension was determined by the 15 years with the highest income, while under the new income pension system, the amount is determined by income for all years.

³³ Werner E., *Trygg, sviken eller osäker – Tankar och förberedelser inför pensioneringen* (Safe, disappointed or uncertain - Thoughts and preparations for retirement). Lund Dissertations in Social Work, 2012;44.

4 Pension system development and employment among older adults in industrialised countries

In many industrialised countries the development of the economy and pension systems is reminiscent of that in Sweden. The oil crisis in the early 1970s put an end to a period of continuous growth and put pressure on the labour market.³⁴ At the same time, globalisation required changes in the labour market to address a variety of challenges.³⁵ This led to early retirement becoming commonplace in an attempt to reduce unemployment. Employers could then get rid of the most expensive employees and it became possible for employees to stop work with a high level of financial security. Early retirement became an attractive solution in economic crises. The financial crisis of the 1990s was also characterised by a trend of early retirement.

4.1 A wave of pension reforms

After the crisis, there was a clear break in the trend away from early retirement to an extended working life. Research showed that early retirement of older adults did not make it easier for young people to get work. Another reason was that the ageing population put pressure on the financial sustainability of the pension systems. In turn this led to a wave of pension system reforms in many countries. Such reforms include a change from a defined benefit system to a defined contribution system in some countries (which were first undertaken in Sweden and Italy). Other reforms included raising the minimum age

³⁴ Kohli M, Rein, M. and Guillemand, A. M. (Eds.), *Time for retirement: Comparative studies on early exit from the labor force*. Cambridge University Press. 1991.

³⁵ Blossfeld H. P., Buchholz, S. and Hofäcker, D., *Globalization, uncertainty and late careers in society*. Routledge. 2006.

for both the public pension and the age at which it became possible to receive basic protection, as well as increasing the number of years that were counted as pensionable years. Several countries introduced flexible pensions or partial retirement. Some countries introduced or reinforced the financial incentives for a longer working life or made early retirement a less favourable option. Some countries modified the calculation of pension benefits in a way that meant lower pension at given retirement age. Many countries also introduced stricter rules or increased requirements for early exit from working life through other parts of the social insurance system. All of these reforms were implemented in order to improve the pension system sustainability and provide incentives for extending working life. Even if we see a general trend from early retirement to an extended working life, it is still possible to see that some countries oscillated between different reforms during different periods or introduced counter-reforms.³⁶ There was often a strong public opposition against raising the pension age and against changes that resulted in lower pensions.

It is possible to follow the development of pension systems using publications and reports from different international organisations. Every two months, the FIAP (International Federation of Pension Funds Administrators) publishes overviews of the changes that have been made to the pension systems in different countries. FIAP also publishes a variety of overviews, such as one on parametric changes in the defined benefit pensions in different countries (public *pay-as-you-go* pension programmes) during the period from 1995–2021 and a comparison from March 2021 between the countries that have the same type of pension system as Sweden (notional defined contribution system).³⁷ Italy, Latvia, Poland, Sweden and Brazil are the countries that have this type of pension system.

The FIAP review of the *pay-as-you-go* system shows that in 63 countries the normal pension age was raised between 1995 and June 2021, contributions were raised in 79 countries and the method of calculation was changed so that the pension became lower in 62

³⁶ Börsch-Supan A. H. and Courney, C., Social security programs and retirement around the world: reforms and retirement incentives - introduction and summary. *NBER working papers* No. 25280. 2018.

³⁷ FIAP Newsletter March 2021, No 122, The Notional Defined Contribution System: Analysis and International Experience.

countries. Looking only at the period between 2009 and June 2021, the corresponding number of countries is 45, 22 and 34.³⁸

Other organisations also publish regular reports on the pension systems. For example, OECD is reporting on the development in its member countries through its *Pension at a glance* and the European Commission is reporting on the development in its member states through its *Ageing Working Group*, among others. It is therefore easy to follow what is happening with the pension systems in different countries.

4.2 Development of the labour force participation in different countries

A review of 19 scientific studies concludes that the increase in labour force participation is associated with different reforms.³⁹ There are also other explanations for increased labour force participation among older adults, such as increased levels of education and increased labour force participation among women.

How has the employment among older people developed? Table 4 shows the increase in employment in the 60–64 years age group in a number of countries in recent decades. This age group is the most relevant when investigating the age of retirement because the age of retirement has usually been within that age range. The pattern is often the same in different countries. In the 1990s there was a slight decline and after that a sharp and continuous increase. We see the same pattern for the majority of EU countries and also for other OECD countries.

³⁸ FIAP, Parametric Reforms in the Public PAYGO Pension Programs 1995 - June 2021.

³⁹ Boissoneault M et al., A systematic review of causes of recent increases in ages of labor market exit in OECD countries. *PLOS ONE* 2019; 15 (4).

Table 4. Per cent employed in some countries of those aged 60–64 years

	1989	1999	2009	2019
Belgium	11.8	12.9	18.8	32.8
Denmark	35.4	34.0	33.1	59.7
Finland	25.4	21.6	39.4	54.2
France	16.4	11.2	17.1	32.7
Greece	33.5	30.4	31.1	32.9
Iceland	..	82.2	72.3	78.0
Italy	21.4	18.3	20.2	41.7
Norway	53.3	54.6	59.1	65.0
Portugal	38.0	42.8	39.8	48.0
Sweden	54.9	46.7	60.6	70.2
Austria	..	11.2	19.8	30.9

Source: OECD.Stat, LFS by sex and age – indicators 2021.

Despite the trend towards an extended working life being seen in many countries, there are still some differences. An earlier study grouped 13 countries into three categories: countries with continuously high labour force participation among older adults (USA, Japan, UK, Switzerland, Denmark and Sweden), countries with continuously low labour force participation among older adults (Austria, Italy, Spain, Estonia and the Czech Republic) and countries with a marked break in the trend from early exit to late exit (the Netherlands and Germany).⁴⁰ The study relates these conclusions to a variety of factors at the individual level, organisational level and institutional level.⁴¹

⁴⁰ Hess M., König, S. and Hofäcker, D., Retirement Transitions Under Changing Institutional Conditions: Towards Increasing Inequalities? Comparing Evidence from 13 Countries, in Hofäcker D., Hess M. and König, S. (Eds.), *Delaying Retirement. Progress and Challenges of Active Ageing in Europe, the United States and Japan*. Palgrave Macmillan 2016.

⁴¹ König S., Hess, M and Hofäcker, D. Trends and Determinants of Retirement Transition, in Europe, the USA and Japan: A Comparative Overview, in Hofäcker D., Hess M. and König, S. (Eds.), *Delaying Retirement. Progress and Challenges of Active Ageing in Europe, the United States and Japan*. Macmillan 2016.

4.3 Which factors can contribute to explain the development?

Research presents a theoretical framework that captures these changes from early retirement to an extended working life. Previous research described the decision to retire with so-called *push and pull* factors. *Push* factors are those that mean people do not have the option of continuing to work such as poor health, age discrimination or unemployment. *Pull* factors are most often described as a financial offer to retire. Both types of factor influence the decision to retire early.

Recent research includes two additional factors, the so-called *need and maintain* factors, which describe the decisions to continue working. *Need* factors are those that describe the financial necessity to continue working. It could be that the pension system penalises early retirement through provision of a low pension. There may also be less options for an allowance from other security systems in the event of leaving the labour market early. *Maintain* factors include training or other support - usually from employers - to be able to carry out a job.⁴²

Research indicates that the new trend towards an extended working life may lead to increased variation in the age of retirement. Certain groups will have less choice once they come to retire - either because they have to retire early due to *push* factors or because they have to continue working due to *need* factors. Other groups will have better options to decide when they retire. Their decisions are made possible due to *pull* or *maintain* factors.⁴³ One study points out that in Sweden *need* factors may occur, especially for those with a low level of education because the rules for disability pensions have become stricter. These factors may also occur for women following the reforms to the pension system that mean the pension is now based on the entire working life. In other countries with less generous pension

⁴² Hofäcker D. and Radl J., Retirement Transitions in Times of Institutional Change: Theoretical Concept, in Hofäcker D., Hess M. and König, S. (Eds.), *Delaying Retirement. Progress and Challenges of Active Ageing in Europe, the United States and Japan*. Palgrave Macmillan 2016.

⁴³ Hofäcker D. and Radl J., Retirement Transitions in Times of Institutional Change: Theoretical Concept., in Hofäcker D., Hess M. and König, S. (Eds.), *Delaying Retirement. Progress and Challenges of Active Ageing in Europe, the United States and Japan*. Palgrave Macmillan 2016.

systems, there may be less social inequality than in Sweden, but *need* factors exist in those countries for a significantly larger group.⁴⁴ It is therefore important to illustrate when groups are in a situation in which their pension decisions are determined either by *need* or *push* factors and the options available to a group for receiving a reasonable pension or social insurance support until retirement.

Institutional factors can impact groups in different ways. A study of 14 European countries investigating differences in levels of education found that a high proportion unemployed and a high level of employment protection legislation are associated with early retirement among men with lower levels of education but not among men with higher levels of education. The same applies to a factor that reflects an implicit tax on continued work. One such implicit tax is a covariant of early retirement for men with lower levels of education. The study finds no direct association between early retirement and the statutory retirement age, nor with expenditure on active labour market policy.⁴⁵

4.4 It is important to know about the pension systems in other countries

When we compare the development of employment among older adults in different countries, it is important to know how their pension systems are structured and not least, to understand the interaction between different measures and the impact of the pension systems on the incentives for continued work. For example, one measure for early retirement may be attractive if the public pension system is defined benefit but not if the pension system is defined contribution. Consequently, it is not possible to borrow a reform from another country and introduce it in Sweden, without considering the consequences it will have for our system and what additional financing may be needed. When addressing different forms of policy for early retirement in other countries in the coming chapters, we

⁴⁴ Hess M., König, S. and Hofäcker, D., Retirement Transitions Under Changing Institutional Conditions: Towards Increasing Inequalities? Comparing Evidence from 13 Countries, in Hofäcker D., Hess M. and König, S. (Eds.), *Delaying Retirement. Progress and Challenges of Active Ageing in Europe, the United States and Japan*. Editor: Palgrave Macmillan 2016.

⁴⁵ De Breij S , Huisman, M. and Dees, D., Macro-level determinants of post-retirement health and health inequalities: A multilevel analysis of 18 European countries, *Social Science & Medicine*, 2020;245.

consider how their pension systems are constructed and indirectly to how the different forms of policy must be adapted if they are to be introduced in Sweden. Therefore, it is very important to know about the pensions systems of other countries when seeking to learn from the experiences with the policies for early exit from working life that have been implemented in these countries.

5 Measures for early retirement in different countries

There are usually several exceptions to the trend towards an extended working life. In most countries, there are options available for leaving working life before the pension age. These may involve regulations that were in effect earlier when it was more common to retire early and pensions were more generous. It may also involve new options for certain groups that balance the general trend towards an extended working life.

In many countries there are possibilities that enables early retirement. Sometimes it applies only to certain groups, such as a lower statutory retirement age for women or an option for people with high pension capital. An early retirement is quite often associated with a lower pension, so in practice the option of early retirement is primarily for those with higher incomes.

There are also several targeted measures that make early retirement or early exit possible for certain groups. These options sometimes mean that early retirement does not affect the pension in an equally negative way and sometimes that these groups have the option of leaving working life earlier and receive some form of allowance.

In this chapter, we report on these targeted measures. We present five types of solution that were revealed in our review of a large number of countries:

1. The option of an early retirement for people with a working history of many years or those who started working life early (hereinafter referred to as: “long working life”)

2. The option of early retirement for individuals in certain occupations or with certain work tasks (hereinafter referred to as: “specific occupations and work tasks”)
3. The option of early retirement or downsizing through part-time solutions and partial retirement solutions for older adults (hereinafter referred to as: “partial retirement solutions for older adults”)
4. The special option of early retirement for older adults with reduced work ability through medical insurance or early retirement (hereinafter referred to as: “reduced work ability”)
5. The option of early retirement for older adults unemployed or extended unemployment benefits for older adults (hereinafter referred to as: “unemployed elderly”)

Measures differ from country to country and measures are sometimes combinations of different measures.

5.1 Long working life

In several countries, there is an option for people to retire earlier if they meet certain requirements for a long working life or more specifically for people who started working early. These options mean not only a right to early retirement but also early retirement without a reduction in the pension. It can be important for people with low pension capital to be able to retire early without the pension becoming lower.

These options are sometimes for people with many years of work under defined benefit pension schemes exception from the rule that those who retire early receive a percentage reduction for each month or year that they take pension before the retirement age. The exception makes it possible for people with many years of work to retire earlier without a lowering of the pension.

There is no such option available in Sweden and other countries with defined contribution pension schemes. Under the Swedish pension system, the pension gets higher the more years a person had worked. The Swedish Pensions Agency estimates the effect to be 6–8 per cent

for each year that a person postpones drawing a pension.⁴⁶ Anyone who starts drawing a pension before the age of 65 thus receives a lower pension. See table 5.

Table 5. Estimated percentage change of the pension at retirement compared to retirement at age 65

Monthly salary	62	63	64	65	67	68	69
< SEK 40 250	-18 %	-12 %	-5 %	ref	+6 %	+14 %	+23 %

Source: Pensionsmyndigheten (The Swedish Pensions Agency), *Rules of thumb for pensions*. Reg. no. 2019-288, 2019.

In Sweden, the Government has proposed that those with many years of work should be able to receive a guarantee pension at a lower age than others. The Government proposal regarding increased age limits in the pension system contains an exception provision for people with a long working life. According to the proposal, people with 44 years of work with a pensionable income of at least two income base amounts should still be able to receive a guarantee pension at the age of 65. For people with a shorter time in the labour market, the pension age for the guarantee pension increases in line with the full pension age, called *riktålder*.⁴⁷ The *riktålder* is a new concept that describes an automatic adjustment of the retirement age with increase in longevity. The proposal for the exception provision has been subject to a lot of criticism. The response of the Swedish Pensions Agency to the consultation states that such an exception would only affect around one thousand people each year.⁴⁸

What is counted as a year of work differs between countries. For example, it may be the number of years for which an individual is insured by the retirement annuity, the number of years of pensionable income or the number of years with payments into different schemes.

⁴⁶ Pensionsmyndigheten (The Swedish Pensions Agency) website: www.pensionsmyndigheten.se, retrieved 11 June 2021.

⁴⁷ Ds 2019:2, *Höjda åldersgränser i pensionssystemet och i andra trygghetssystem* (Raised age limits in the pension system and in other social security systems).

⁴⁸ Pensionsmyndigheten (The Swedish Pensions Agency), *Höjda åldersgränser i pensionssystemet och i andra trygghetssystem* (Raised age limits in the pension system and in other social security systems). Reg. no. 2019-64, 2019.

There is sometimes a minimum for how low the pensionable income can be in order to be counted.

5.2 Specific occupations and work tasks

Many European countries have lower ages of retirement for employees in certain occupations. People who have so-called arduous duties, also often referred to as a “hazardous job” are not assumed to be able or capable of working for as many years as others. There is essentially three ways of addressing the issue in European countries.

- Arduous occupations are recognised by general statutory rules that cover a large number of occupations.
- Arduous occupations are recognised by specific statutory rules that cover one or a few occupations.
- Arduous occupations are not recognised by legislation, but there are rules for special occupations through occupational pensions or equivalent.⁴⁹

The countries we have studied are using three different ways in which to work out what is to be considered as an arduous occupation. A first principle is that the occupation is itself tiring, which has an impact on the ability of the employee to carry out the occupation at an older age. An example of such an occupation is miners.

A second principle concerns occupations that place special demands on cognitive abilities and in which these abilities are assumed to decrease with increasing age. An example of such an occupation is air traffic control.

A third principle concerns occupations in which older practitioners can be assumed to pose a danger to others due to the special requirements of the occupation. Examples of such occupations are pilot or tram driver. See further information in our country examples in the coming chapters.

Based on the different ways of deciding what should be counted as an arduous occupation, countries also have different ways of pointing

⁴⁹ ESPN, *Retirement regimes for workers in arduous or hazardous jobs in Europe - a study of national policies*. 2016. p.11.

out these occupations. The occupations can be identified either by using lists of specific occupations or occupational groups, lists of workplace health and safety factors or through a combination of these. The lists of workplace health and safety factors can include physical, physically-oriented and psychosocial factors.⁵⁰

The previously determined early retirement in arduous occupations is funded in different ways. It might be that the employer pays higher contributions, that the individual working in the arduous occupation pays a higher contribution themselves, as well as combinations of these. In some countries, the Government covers all or part of the cost.⁵¹

Countries that recognise arduous occupations have different rules for the pension age and for the amount of the pension. In most countries, both the pension age and the amount of the pension are dependent upon the annuity period - the time for which the person has worked in an arduous occupation - the arduous occupation in which the individual has worked, as well as gender.⁵² The rules are too specific and there is too much variation for us to be able to describe them in detail, but we report some examples in Chapter 6 in which we present this solution as it is implemented in different countries.

In most countries, only a minority of the labour force is covered by the rules although the number of occupations or workplace health and safety factors pointed out as arduous are relatively many. An estimate from 2016 shows that the group employed in an arduous occupation represents 1–4 per cent of the labour force and 5–8 per cent of all retirees. The proportion of the entire labour force that is employed in arduous occupations has decreased during the 2000s. This is due to the fact that the labour market sectors in which the occupations are situated have shrunk and the rules have been tightened.⁵³

A lower pension age is not the only solution or the only measure targeted at individuals employed in arduous occupations. For

⁵⁰ ESPN, *Retirement regimes for workers in arduous or hazardous jobs in Europe - a study of national policies*. 2016. pp. 11–12.

⁵¹ ESPN, *Retirement regimes for workers in arduous or hazardous jobs in Europe - a study of national policies*. 2016. pp. 23–24.

⁵² ESPN, *Retirement regimes for workers in arduous or hazardous jobs in Europe - a study of national policies*. 2016. pp. 21–23.

⁵³ ESPN, *Retirement regimes for workers in arduous or hazardous jobs in Europe - a study of national policies*. 2016. pp. 12–14

example, other measures include labour market measures, i.e. measures intended to extend a healthy working life or measures that enable workers in arduous occupations to stop working, for example with the support of unemployment benefits or disability pensions.⁵⁴

Throughout the 2000s, the majority of the European countries that recognise arduous occupations have made it more difficult to take early retirement on this basis. For example, the countries have repealed rules or tightened them. Further to this, for certain occupations general rules have also been replaced by specific rules that apply to the testing of individual cases.⁵⁵ There are still examples found in which there is a debate around the expansion of the occupational groups that can retire early.⁵⁶

Sweden does not have any statutory rules for arduous occupations but special solutions exist in the occupational pensions for employees in certain occupations. An earlier report by ISF shows that occupational groups that do not have requirements on level of education have a higher probability of people taking retirement before the age of 65 and a lower probability of people continuing to work after the age of 65. For example, this applies to restaurant staff but also those employed in metalworking industries and reparation work. The report shows that physically arduous and monotonous work is associated with early retirement.⁵⁷

5.3 Part-time solutions for older adults

Partial retirement solutions may also represent an option for those who cannot manage full-time work until retirement. There are also part-time solutions available that make it possible to stop working full-time several years before reaching the pension age through the provision of a phased salary.

The part-time solutions take several forms. Partial retirement is available in some countries, which means that the individual can draw a portion of the pension as a form of allowance for the reduction in

⁵⁴ ESPN, *Retirement regimes for workers in arduous or hazardous jobs in Europe - a study of national policies*. 2016. pp. 13–15.

⁵⁵ ESPN, *Retirement regimes for workers in arduous or hazardous jobs in Europe - a study of national policies*. 2016. pp. 16–18.

⁵⁶ Denik website: www.denik.cz, retrieved 14 August 2021.

⁵⁷ ISF, Tidig och sen pensionering (Early and late retirement). Report 2020:7.

working hours. There are several countries in which it is possible to draw a pension and continue to participate in the labour market. For individuals who are approaching the pension age, there is also an option available of working part-time so that they do not need to retire early. Such solutions have been partially subsidised by both the Government and the employer, but such subsidised solutions have been abolished in many countries in recent times.

There is a lot of variation between the countries with regard to the age at which an individual is able to partially retire or undertake phased retirement. Phased retirement means that individuals have the option of working on a part-time basis once they reach a certain age, which is usually an age close to the pension age. In some countries, this is possible several years before reaching the pension age, in other countries it becomes possible at the same time as the earliest possibility at which an old-age pension can be drawn, and in some countries, it only becomes possible once an individual reaches the statutory pension age.

There are already options available in Sweden that enable an individual to reduce their working hours and draw a portion of the pension as compensation. This can be done through an occupational pension or through the public pension. In Sweden, government employees born before 1988 are covered by a partial retirement agreement. The partial pension is not a basis for the calculation of the old-age pension and can therefore have a negative impact on that pension.⁵⁸ There are also flexible and phased pension agreements in other collective agreements.⁵⁹

There were other solutions available in Sweden in earlier times. There was a subsidised option available for part-time work that was very popular between 1976 and 2001 but it was subject to criticism as it was considered too expensive. By 1994 the programme had already become less generous and was phased out entirely by 2001. When the programme started it was possible to reduce working hours by at least five hours for those who had reached 60 years of age. The allowance

⁵⁸ Pensionsmyndigheten (The Swedish Pensions Agency), *Förmånsbestämda tjänstepensioner – Hur påverkas tjänstepensionen av att sluta eller gå ned i arbetstid innan 65 års ålder?* (Defined benefit occupational pensions - How is the occupational pension affected by stopping work or reducing working hours before the age of 65?) Reg. no. 2019-434, 2020.

⁵⁹ Pensionsmyndigheten (The Swedish Pensions Agency), *Flexpension och delpension – En översikt inom de fyra stora avtalsområdena* (Flexible pensions and partial retirement - An overview of the four major occupational areas). Reg. no. 2017-247, 2017.

for lost income was paid at 65 per cent via a payroll tax. Over the time the programme was available, the level of allowance decreased while the earliest age at which an employee could take advantage of the part-time option increased. The programme was often supplemented with a part-time pension from the occupational pension. Occupational pension solutions were not available for employees in the private sector.⁶⁰

5.4 Reduced work ability

In all countries that we have studied, there are social insurance benefits that in many respects can work as a form of early retirement. Some countries have some form of benefit that is similar to the Swedish disability pension, which is targeted at a larger portion of the population. Others have some form of benefit that is targeted more specifically at those who are close to the regular pension age. These more specific benefits are reminiscent of the Swedish disability pension. In this section, we address the benefits that resemble the Swedish disability pension, irrespective of whether they are targeted at a broader group or not. It is difficult to describe the rules of the different countries that apply to benefits of this kind, as there are big differences in both what benefits are available, as well as big differences in the conditions that apply regarding eligibility for these benefits.

A condition common to all countries studied is that access to a disability pension is only granted following individual testing. There is an important difference that exists between disability pensions and early retirement that is based on professional affiliation, in which everyone who has worked in a certain profession may retire early and without individual testing of the ability to carry out work.

There are both differences and similarities demonstrated with regard to what is tested, i.e. the conditions that are required to be met in order to be eligible to receive a disability pension. We have not found any exception to the rule that to be eligible to receive a disability pension there must be a reduced work ability. The inability to work may be due to illness, injury or disability. Nevertheless, there are

⁶⁰ Wadensjö E., *Part-Time Pensions and Part-Time Work in Sweden, IZA Discussion Paper No. 2273*, 2006.

additional conditions imposed and these differ by country. It is not possible to take all conditions in all countries into account. Some examples are conditions of the following kind:

- Conditions relating to lost income: A condition may be that the future loss of income must be a certain amount for example, a disability pension will not be granted if the individual is not assessed as losing a certain percentage of future income due to inability to work.⁶¹
- Conditions relating to the pension age: A condition might be that the number of years remaining until the regular pension age must not exceed a certain number for example, a disability pension can be granted no earlier than five years before the regular pension age.⁶²
- Conditions relating to rehabilitation: A condition might be that all rehabilitation options must be exhausted or that the individual must actively participate in rehabilitation measures.⁶³

There are also differences in requirements between the countries with regard to the length of time that the reduced work ability must be in order to give the entitlement to a disability pension. There may also be differing requirements relating to duration within a single country, as some countries have different options for early retirement depending on whether the reduction in the ability to work is temporary or permanent. In many countries the right to an allowance is retested in the benefits when the reduction is not permanent while it is not necessarily retested in the benefits in which the reduction is assessed as permanent.

There may be variation in the level of the allowance. An allowance can initially be paid in full or in part, depending on the extent of the reduction in work ability. Given a certain level of reduction, it will be that a disability pension is paid at a standard amount, that the pension will vary with the amount of previous income or that it will vary with the reduction in the ability to carry out a job that generates an income.

⁶¹ issa website: www.issa.int, retrieved 15 June 2021.

issa website: www.issa.int, retrieved 15 June 2021.

⁶² issa website: www.issa.int, retrieved 15 June 2021.

⁶³ [Arbets och välfärdförvaltningen] New Work and Welfare Administration website: <https://www.nav.no/no/person/pensjon/uforetrygd>, retrieved 15 June 2021.

In cases in which disability pensions vary on the basis of previous income, there are countries that count a limited number of years of previous income while other countries count income for a whole life.

One final question is against which jobs or occupations the ability to work is assessed. In some countries the ability to work is assessed against the ability to carry out a job at all, in other countries it is evaluated against the ability to carry out a particular job, for example the work carried out by the individual before the reduction in the ability to work. There may even be differences within a country with regard to how this assessment is done, for example depending on the age of the individual or the sector.

5.5 Unemployed older adults

Connection to the labour market is important for older adults. There are often fewer elderly people who are unemployed than in other age groups,⁶⁴ but there are greater consequences of unemployment for older adults than there are for younger people. Periods of unemployment are often long and the number of older unemployed people leaving the labour market is higher than that for younger unemployed people. The design of the unemployment insurance and its association with retirement and age is therefore of particular importance.

There are principally two types of unemployment solutions that are included in our investigation: Longer or reinforced unemployment support for older adults and early retirement in the event of unemployment. With regard to early retirement in the event of unemployment, this may be a form of transitional pension or early old-age pension.

There are solutions for elderly unemployed in many countries but those options have become increasingly limited during recent years. In many cases, the options for early retirement or transitional pensions are limited to certain groups of unemployed older adults. For example, there is usually an age requirement, i.e. a minimum age at which you become eligible for early retirement. The majority of

⁶⁴ Statistics Sweden, *Befolkningen 15-74 år (AKU)*, andel i procent efter år, kön, ålder och arbetskraftstillhörighet. (Population 15-74 years (Labour Force Surveys), proportion as a percentage by year, gender, age and workforce affiliation). 2020.

countries also have requirements for the number of years of pension, social insurance or unemployment insurance. Furthermore, in some countries only certain types of unemployment are valid, for example that the unemployment must be the result of bankruptcy or that differences exist between voluntary and involuntary unemployment. An early retirement or transitional pension often mean reductions in the pension, at least for the period before the ordinary pension age.

Financing takes place primarily through the pension system, unemployment insurance or other public solutions. But there are several other solutions, for example that the employer pays the allowance or that the individual pays into an insurance that can be used for early retirement in the event of unemployment.

With regard to extended or reinforced unemployment support for older adults, the length of support differs between countries.

6 Options for early retirement in different countries

In this chapter, we report the most relevant examples from our review of European countries. We report the different types of solution for early retirement that were summarised in Chapter 5. The majority of the countries reported below offer several options for early retirement and sometimes these targeted measures are a combination of different types of measure. In such cases, we describe combination solutions under one of the types that constitute the measure.

We provide a brief review of the pension system in the different countries in order to facilitate an understanding of the institutional conditions for retirement. We then review the different types of solution for early retirement and refer to evaluations if they exist. In some cases, we report available statistics relating to the measures so as to give an idea of how many people are leaving the labour market with a certain measure and the amount of the pensions these groups receive. The countries we report on in the chapter are as follows:

- Belgium (Section 6.1)
- Denmark (Section 6.2)
- Finland (Section 6.3)
- France (Section 6.4)
- Greece (Section 6.5)
- Iceland (Section 6.6)
- Italy (Section 6.7)
- Norway (Section 6.8)
- Portugal (Section 6.9)

- Austria (Section 6.10).

6.1 Belgium

Belgium is a relevant example to highlight as it is a country that uses a system that allows individuals with long working lives to retire early. In this section, we build on information from professor Yves Stevens, University of Leuven,⁶⁵

6.1.1 The pension system

In Belgium the pension age is 65. According to a decision rendered in 2015, it will be raised to 66 years in 2025 and to 67 years in 2030. It is possible to draw a lower pension before turning 65 years of age provided certain conditions are met. Belgium has gradually raised the minimum age at which it is possible to draw an old-age pension from 60 in 2012 to 63 in 2019 (for an age of retirement lower than the national age of retirement there is a prerequisite of a certain number of working years). The Belgian pension system is a defined benefit system.

There is a lower age of retirement only for a few occupations than there is for those employed in other occupations. This applies to some white-collar workers employed by public organisations; primarily police and military.

Belgium does not have a special partial retirement system that makes it possible to leave gainful employment gradually without the pension decreasing upon full retirement.

6.1.2 Long working life

Belgium has a special pension system that allows some to retire at an earlier age than the age at which others can retire. Those who have worked for many years have the option of a lower retirement age (60 or 61 years) than the retirement age applicable to others. Refer to the

⁶⁵ Put, J. et al. (Ed), *Praktijkboek Sociale Zekerheid 2021. Voor de Ondernemingen de Sociale Adviseur*, Wolter Kluwer, 2021.

table below for information regarding the terms and conditions of this system.

Table 6. Retirement age and requirement on number of years of work in Belgium

<i>Year</i>	<i>Minimum age for retirement</i>	<i>Number of years of gainful employment required for early retirement</i>	<i>Exceptions for those with many years of gainful employment</i>
2012	60 years	35 years	-----
2013	60.5 years	38 years	60 years if 40 years of work
2014	61 years	39 years	60 years if 40 years of work
2015	61.5 years	40 years	60 years if 41 years of work
2016	62 years	40 years	60 years if 42 years of work 61 years if 41 years of work
2017	62.5 years	41 years	60 years if 43 years of work 61 years if 42 years of work
2018	63 years	41 years	60 years if 43 years of work 61 years if 42 years of work
2019	63 years	42 years	60 years if 44 years of work 61 years if 43 years of work

Source: Information from Yves Stevens.

6.2 Denmark

Using different criteria, Mercer conducts regular evaluations of the pensions systems in different countries. They also rate the standard

gained by the pensions systems of different countries in accordance with a rating scale of A, B, C, and D, where A represents the highest quality. According to the Mercer evaluation in 2020, the only two systems to have achieved a rating of A are Denmark and The Netherlands. Finland, Norway and Sweden all have a rating of B.⁶⁶ Consequently, this makes Denmark an interesting country to investigate in more detail.

A comparison of the three Scandinavian countries, Denmark, Norway and Sweden indicates approximately the same development trends in the proportion of people employed aged between 15–64 years across the three countries between 1960 and 2018.⁶⁷ A sharp equalisation has occurred between men and women in the proportion of people employed, although men are still gainfully employed more often than women. There is a somewhat larger difference remaining in Denmark in this respect than in Norway and Sweden. From a comparison of the three countries, it emerges that the average annual working time is lower in Denmark than in Norway and particular lower than in Sweden. A comparison of labour force participation and employment among those aged from 65–69 years of age in Denmark, Sweden and Germany during the period from 2000–2014 indicates that it is higher in Denmark than in Germany but significantly lower than in Sweden. It has increased over time in all three countries.⁶⁸

6.2.1 The pension system

The pension system in Denmark consists of a basic pension, an income-tested complementary pension and a supplementary pension (ATP). It is a defined contribution pension system. There are also labour market pensions that are funded by contributions made by both the employee and the employer.⁶⁹

⁶⁶ Mercer, *Mercer CFA Institute global pension index 2020*, Monash University. 2020.

⁶⁷ Brochmann G., et al., *Velfærdsstat og befolkning i Skandinavien*. Gyldendal and Rockwool Foundation, 2020.

⁶⁸ Larsen M. and Pedersen J. P., Labour force activity after 65: what explain recent trends in Denmark, Germany and Sweden? *Journal of Labour Market Research*. 2017; 50: 15–27.

⁶⁹ Larsen M., *Retaining older workers in the Danish labour market*, PhD thesis in economics, Department of economics, Aarhus School of Business. 2004.

Larsen M., Bjerregaard Bach and Ellebeak, L. S., 55–70 –åriges forbliven på arbejdsmarkedet. Adfærd, forventninger og kendskab til regler, (55–70-year-olds remaining in the labour market. Behaviour, expectations and knowledge of rules), SFI 11:13. 2011.

Changes in recent years include the 2016 implementation of an increase in the age of retirement from 67 years to 68 years. Another change to eligibility for a full pension was implemented in July 2018 and sets requirement for 90 per cent of working life to have been in Denmark. In practice this means a lower pension than previously for many workers born in another country.

The age of retirement is now 67 years for those born between 1955–1962, 68 years for those born between 1963–1966 and 69 years for those born between 1967–1970. The age of retirement age for those born after 1970 will be determined later and will be dependent upon life expectancy.

6.2.2 Reduced work ability

Denmark has an early retirement pension (disability pensions). The right to early retirement for those who have not spent their entire adult life in Denmark is subject to restrictions. There is a special senior early retirement pension for those with work-related reasons (high physical demands at work or work-related health problems) and have a maximum of five years before reaching the age for the normal old-age pension. The senior early retirement pension system in Denmark can consequently be regarded as a combination solution for people with reduced work ability and the group that has arduous work tasks. This pension is income-tested and indexed to the wage development.

The number of people granted an early retirement pension decreased until 2014 but has since then increased every year. The most rapid increase has been in the 60–64 years of age group. In recent years, people aged between 65–69 years of age have also been granted early retirement pensions. The increase in the influx of new early retirement pensions has led to an increase in the total number of people receiving such pensions. Part of the explanation for the increase in the number of people in early retirement could be that it has become more difficult to get a retirement transition benefit (see below).

6.2.3 Retirement transition benefit

Denmark has a system for early retirement called a retirement transition benefit that was introduced in 1979. It meant that anyone who had turned 60 years of age could retire early if they met certain conditions (had worked for at least 30 years from the age of 30, were working at the time they retired and were a member of the unemployment fund). Its purpose was to make it easier for young people to get a job, but the reform did not have the desired effect as young people were not getting employed to a greater extent. Many people took out the retirement transition benefit. For the development up to and including 2004 and a thorough review of the composition of those who are granted a retirement transition benefit, see Nielsen (2005).⁷⁰

The options for getting a retirement transition benefit have been gradually restricted. The age at which it is possible to start receiving a retirement transition benefit has been gradually increased and the number of years that make it possible to receive a retirement transition benefit has been lowered (the later the year of birth, the lesser the number of years with a retirement transition benefit). For those born 1 January 1963 or later, a retirement transition benefit can only be granted at the age of 65 and the number of years for which it can be received is a maximum of three years until the national pension age, which is 68 for this group.

6.2.4 Long working life – the Arne pension

Denmark is introducing a new system for early retirement for those who have worked for many years, in practice for those who started working as adolescents. Applications opened on 1 August 2021 and will be granted from 1 January 2022. The new pension is called the “Arne pension” after Arne Juhl, a brewery worker who developed bad knees as a result of his work. He had been gainfully employed since the age of 16.⁷¹ Some of the features of the new pension are discussed below.

⁷⁰ Nielsen T.M., *Overgang till efterløn (Transition to retirement transition benefit)*, Statistics Denmark. 2005.

⁷¹ Ministry of Finance of Denmark. *Aftale om ret til tidlig pension (Agreement on the right to early retirement)*. 2020.

For those born from 1965–1968 the requirements to be granted an Arne pension are 43 years of gainful employment for retirement one year before the normal pension age, 44 years of gainful employment for retirement two years before the normal pension age and 45 years of gainful employment for retirement three years before the normal pension age.⁷²

For those born from 1969–1970, the requirements are 44 years of gainful employment for retirement one year before the normal pension age, 45 years of gainful employment for retirement two years before the normal pension age and 46 years of gainful employment for retirement three years before the normal pension age.

There is an age range within which years of gainful employment qualify for the calculation of the number of years of gainful employment.

One working year is counted as full-time if the work time during the working week was 30 hours or more. Longer part-time work may also be counted as a full working year if the working week time totals a minimum number of hours, even if it is less than 30. There are differences here in how the calculation is done between different cohorts. For shorter working hours, part of the year may be included in the calculation of the number of working years an employee has had. The rules here also differ somewhat between different age cohorts.

It is estimated that 41,000 people will be entitled to early retirement in 2022. Most will have had blue-collar occupations. It is estimated that eight out of ten people will have had such occupations. A comparison across industries indicates that the largest proportion of those who can receive such a pension are expected to come from working in the food industry, followed closely by metalworkers. The number of full-time employees who are receiving an Arne pensions is estimated to increase to 56,000 by 2025. It is estimated that more men than women will be entitled to receive an Arne pension as more men had started to work as teenagers. Furthermore, it is also estimated that

Ministry of Finance of Denmark. Ny ret til tidlig pension – Hvem får retten? (New right to early retirement - Who has the right?) 2020.

⁷² Danish Government. Ny ret til tidlig pension – værdig tilbagetrækning for alle (New right to early retirement - dignified retirement for all). 2020.

there will be less people eligible for this pension who live in larger cities than those living in other areas.

Denmark does not have any special rules regarding early retirement for those who work in certain occupations but to some extent, those who have had arduous working conditions such as heavy physical work will be eligible for senior early retirement pensions.

6.3 Finland

Like Norway and Denmark, Finland has both low income inequality and low relative poverty among older adults.⁷³ By comparison, Sweden has a medium level of poverty and medium level of inequality.⁷⁴ Not least for these reasons, Finland may also be of interest for further investigation. Furthermore, like Sweden, Finland has introduced a link between the retirement age and longevity.

6.3.1 The pension system

Finland has a defined benefit pension system consisting of different parts. These parts are an income-based work pension (*arbetspension*) and a national pension that is funded by state funds. The national pension system covers the basic protection with the national pension and guaranteed pension. Both benefits are residence based.

In 2017 Finland undertook a major reform of the pension system in order to achieve the goal of previous reforms on an extended working life. At that time, a link was also introduced between the minimum pension age and trends in life expectancy.⁷⁵ Individuals born before 1955 can draw income-based pension benefits (*arbetspension*) at 63 years of age. Since the reform in 2017, the age has been gradually raised to 65 years. For people born after 1965, the minimum age is linked to an increase in life expectancy.

Those who draw a pension before the minimum pension age for their cohort receive a so-called early reduction of the pension.

⁷³ OECD, *Pensions at a Glance, How does Finland compare?* 2019.

⁷⁴ Ebbinghaus B., Inequalities and poverty risks in old age across Europe: The double-edged income effect of pension systems, *Social Policy & Administration*. 2021;55(3).440-445.

⁷⁵ The Pension Protection Centre website: www.etk.fi, retrieved 10 May 2021.

This means that an individual can draw either 25 per cent or 50 per cent of the income-based pension from the age of 61, but this comes with a lifelong 0.4 per cent reduction in that part of the pension that is drawn, for each month that the pension has previously been drawn by the individual (equivalent to 4.8 per cent per year). There is no option for early full-time retirement with the income-related part.

Cohorts born before 1958 can draw the national pension from the age of 63 and birth cohorts between 1958 to 1961 can draw the national pension from the age of 64. The pension is then reduced permanently with an early withdrawal. Younger cohorts no longer have the option of early retirement and the pension age within the national pension is 65 years. For those born in 1965 or later, the minimum age for the national pension will follow the minimum age in the income-based pension system.⁷⁶

6.3.2 Long working life

In 2017, Finland introduced a new benefit called the years-of-service pension. Individuals born in 1955 and onwards can retire with this pension at the age of 63. This age is associated with life expectancy for later cohorts.

The requirement for receiving the pension is that the individual has worked

- for 38 years, of which a maximum of 3 years is with for example, parental leave
- in mentally or physically strenuous work
- with reduced work ability.⁷⁷

The basis for the assessment of whether the requirements for the number of years are met consists of the income-based pension register and reliable information from the pension applicant.⁷⁸

The option is available for individuals who do not meet the requirements for a full disability pension but who still have a reduced

⁷⁶ Occupational pension website: www.tyoelake.fi, retrieved 14 June 2021.

⁷⁷ The Pension Protection Centre website: www.etk.fi, retrieved 26 February 2021.

⁷⁸ The Pension Protection Centre website: www.etk.fi, retrieved 26 February 2021.

work ability, but the amount is lower than that for the disability pension.

The new benefit thus constitutes a combination solution for people with many working years, reduced work ability and arduous working conditions. A total of 73 new applications for working life pensions were granted during 2020.

6.3.3 Reduced work ability

If an individual has had a reduced work ability for a minimum of one year, there is rehabilitation support or a disability pension available (or sickness pension within the national pension system). Individuals with short-term reduced work ability get rehabilitation support. This applies to those who are expected to be able to recover from injury or illness through rehabilitation. An individual gets a disability pension until further notice when there is a permanent reduction in the work ability. A disability pension is paid if work ability is reduced by a minimum of three-fifths and a partial disability pension is paid if work ability is reduced by a minimum of two-fifths. In 2018, 17 per cent of all disability pensioners received the partial disability pension. The number of people with partial disability pensions has increased over time.⁷⁹

The work ability is assessed in relation to the options for gainful employment that the individual can manage. The assessment considers education, previous activities and place of residence. There is an occupational definition of work ability with regard to age. At the age of 60, the work ability is assessed on the basis of tasks within the occupation for individuals in the private sector. The same occupational definition applies to all those insured in the public sector where there is no specific age limit.

6.3.4 Unemployed older adults

Allowance from the unemployment insurance is paid for 500 days. If an individual turns 61 years of age and was born in 1957–1960 or turns 62 years of age and was born in 1961 or later, the individual can receive so-called additional days that are paid up to the age of 65 or

⁷⁹ The Pension Protection Centre website: www.etk.fi, retrieved 26 February 2021.

when the person receives a pension. These days apply to the income-based part of the unemployment benefit. There has been discussion around gradually abolishing the additional days from 2023 onwards.⁸⁰

It used to be possible to receive an unemployment pension and then draw a pension at an earlier age without reduction. This option has been gradually phased out since 2005.⁸¹ The minimum age was raised by two years in 1997 - the same year in which an evaluation of the unemployment pension reform was conducted, showing that this reduced unemployment in the group that no longer met the minimum age requirement. There was also an increased probability of that group returning to work.⁸² This means that the minimum age plays an important role in the design of any such solution. A follow-up of the reform in 2005 covering another two years found similar results. Employment increased by seven months while the study found no connection between mortality and that people received allowances from disability pensions or sickness benefits, which can be considered a measure of health.⁸³

6.3.5 Part-time solutions for older adults

In 2017, Finland abolished the option of receiving a part-time pension. There was a requirement of five years' work within the last 15 years for a part-time pension. With the part-time pension, the recipient received 50 per cent of the difference between the full-time income and the part-time income (loss of income). It was possible to reduce working hours by 35–70 per cent of the full-time level. The time at which the individual was able to start the partial old-age pension was dependent on birth cohort. For those born in 1952 or earlier it was possible to start at the age of 58, for those born in 1953 at 60 years of age and for those born in 1954 and later at 61 years of age.⁸⁴

⁸⁰ Occupational pension website: www.tyoelake.fi/, retrieved 14 June 2021.

⁸¹ The Pension Protection Centre website: www.etk.fi, retrieved 10 May 2021.

⁸² Kyrrä T. and Wilke R.A., Reduction in the Long-Term Unemployment of the Elderly: A Success Story from Finland, *Journal of the European Economic Association*, 2007;5(1):154–182.

⁸³ Kyrrä T. and Pesola, H., Long-term effects of extended unemployment benefits for older workers, *Labour Economics*, 2020; 62.

⁸⁴ Raipas K. and Sankala, M., *Effects of the 2017 earnings-related pension reform - Projections based on the government bill*, Finnish Centre for Pensions Reports, 08/2015.

A so-called partial old-age pension was introduced instead of a part-time pension. In contrast to the part-time pension, the partial old-age pension is recalculated using the life expectancy coefficient. It also results in a permanent reduction of the pension by 0.4 per cent for each month that the recipient draws the pension earlier. An individual can draw the partial old-age pension at 61 years of age. It is possible to draw either 25 or 50 per cent of the old-age pension without a reduction in working hours.⁸⁵ The majority draw 50 per cent. In 2018, 90 per cent drew 50 per cent of their old-age pension. The majority draw the partial old-age pension early, around two years earlier the normal pension age.⁸⁶ The partial old-age pension was drawn by 70 per cent at the age of 61.⁸⁷ Approximately 8 per cent of those who meet the requirements for a partial old-age pension are using it. This proportion is a little higher among men. Individuals in the private sector and those who are self-employed use this option more often and it is used less often by highly educated people and those in the public sector. There is also an association with the number of years in the labour market. On average, those who drew the partial old-age pension early had a longer working life.⁸⁸

The advantage of the partial old-age pension compared to the earlier part-time pension is that it offers more flexibility for a wider group. The part-time pension solution was mostly for full-time employees, usually those with higher incomes. The partial old-age pension can also be drawn by the unemployed and the differences between different socio-economic groups in terms of withdrawals are low.⁸⁹

⁸⁵ Raipas K. and Sankala M., Effects of the 2017 earnings-related pension reform - Projections based on the government bill, Finnish Centre for pensions reports, 08/2015.

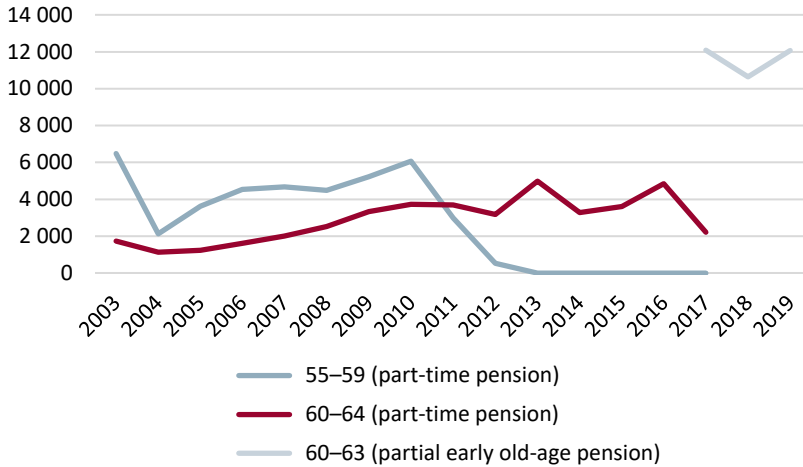
⁸⁶ Tenhunen S., et al., Who opts for a partial old-age pension? A study on the factors behind the choice to take early payment of a partial old-age pension, Finnish Centre for pensions studies, summary, 06/2018.

⁸⁷ The Pension Protection Centre website: www.etk.fi, retrieved 26 February 2021.

⁸⁸ Tenhunen S., et al., Who opts for a partial old-age pension? A study on the factors behind the choice to take early payment of a partial old-age pension, Finnish Centre for pensions studies, summary, 06/2018.

⁸⁹ Tenhunen S., et al., Who opts for a partial old-age pension? A study on the factors behind the choice to take early payment of a partial old-age pension, Finnish Centre for pensions studies, summary, 06/2018.

Figure 1. Part-time pension 2003–2017 and partial early old-age pension 2017–2019



The figure shows the trend in the number of people who take up a part-time pension.⁹⁰ There are many more who use the new partial old-age pension than the previous part-time pension.

6.3.6 Pensions in figures

Table 7 shows the number of newly retired people in 2020 by type of pension (within the occupational pension system) and the average amount per month.⁹¹

⁹⁰ The Pension Protection Centre website: www.etk.fi, retrieved 26 February 2021.

⁹¹ The Pension Protection Centre website: www.etk.fi, retrieved 25 May 2021.

Table 7. Number of new retirees in Finland 2020 and amount

	<i>Number</i>	<i>Average occupational pension, EURO/month</i>
Old-age pension	42,073	1,874
Disability pension at full amount	13,543	1,181
Partial disability pension	5,458	879
Working life pension	73	-
Special agricultural pension	194	1,120
Partial early old-age pension 25%	2,345	423
Partial early old-age pension 50%	10,823	827

Source: The Pension Protection Centre website: www.etk.fi, retrieved on 26 February 2021.

6.4 France

The age of retirement in France is very low in comparison to that of other European countries. There is an ongoing debate regarding raising the pension age that is encountering resistance from different groups of employees. One reason for this is probably that pension system in France consists of many different programmes that hit different groups in different ways.

6.4.1 The pension system

The pension system in France includes a public pension, several different occupational pension systems depending on sector and profession, as well as private pension solutions.⁹² The public pension is a defined benefit system. The pension system includes a total of 42 different pension programmes (régimes) with different rules and within which the pension is partially calculated in different ways.⁹³

⁹² issa website: www.issa.int, retrieved 26 February 2021.

⁹³ Government website: www.gouvernement.fr, retrieved 26 February 2021.

We do not report all details of the pension system as it is very fragmented.⁹⁴

The majority of pension schemes in France are defined-benefit, making it possible for many groups covered by exceptions to retire early with a full basic pension. The French pension system has several options for exiting the labour market early ahead of the statutory pension age.

6.4.2 Long working life

There are options available for individuals in France with a long working life. Individuals in this category may have a pension age that is different than the statutory pension age. Under certain conditions, they may receive a full pension through an exception to the main rule regarding when a full pension can be paid.

In order to understand these two possibilities, we provide an account of the French system for measuring the length of working life (or calculating insurance time). The length of working life is measured in what are referred to as “validated quarters”. In order to validate a quarter and get the right to a pension for this requires an individual to work 150 hours at a minimum wage.⁹⁵

Those with a long working life may have a pension age that is different

Under certain conditions, those who have had a long working life (*carrière longue*) can retire early. Under the main rule, a pension cannot be paid before the age of 62, but under certain conditions those who have had a long working life can draw a general pension from the age of 58 or 60. It is a requirement that the following three condition are met:

- Start working before 20 years of age
- Validate a minimum number of quarters (167–180 depending on year of birth and intended age of retirement)

⁹⁴ Boulhol H., Objectives and challenges in the implementation of a universal pension system in France, *OECD Economics department working papers* No. 1553. 2019.

⁹⁵ Government website: www.gouvernement.fr, retrieved 26 February 2021.

- Validate a certain number of quarters before the age of 16 or 20 (depending on the intended age of retirement).⁹⁶

Those with a long working life can get a full general pension even if they do not meet the requirements under the main rule

Under certain conditions, those with a long working life can get a full public pension even if they retire early, as there are exceptions to the main rule regarding when a full pension can be paid. In France, the pension is paid at a predetermined amount. The system is a defined benefit system but there is also an association between the length of working life and the amount of the pension.

Under the main rule, a full public pension is paid only at the statutory pension age, which is 65–67 years depending on the year of birth. People who retire when they reach the statutory pension age can credit themselves with the maximum number of quarters, irrespective of how many quarters they have validated. A deduction is made if an individual retires before the statutory pension age. The size of the deduction depends on how many quarters the person has validated with a certain income. The lesser the number of quarters, the lower the basic pension.⁹⁷

A full public pension can be paid at an age lower than the statutory pension age if the prospective retiree has validated a number of quarters that is equivalent to a minimum of just over 41 years.⁹⁸ As an example, public employees with a special status in certain occupations may have a different pension age and receive a full basic pension from the age of 55, irrespective of whether their working life totals 41 years or not.⁹⁹

6.4.3 Specific occupations and work tasks

Under the main rule, the public pension can only be paid from the age of 62. There are exceptions to this rule which means that people in certain occupations or with certain duties can draw their pension earlier.

⁹⁶ Service Public website: www.service-public.fr, retrieved 26 February 2021.

⁹⁷ Service Public website: www.service-public.fr, retrieved 26 February 2021.

⁹⁸ Service Public website: www.service-public.fr, retrieved 26 February 2021.

⁹⁹ Service Public website: www.service-public.fr, retrieved 26 February 2021.

The first exception is that there are several specifically highlighted occupations in which workers have a lower statutory pension age. In particular, this applies within the public sector and to employees with special status in arduous occupations. For example, many individuals in the healthcare system can start drawing a pension at 60 years of age, while police officers and some others can already draw a pension from the age of 52.¹⁰⁰

A second exception concerns those in the private sector who have had arduous occupations. These individuals can be credited for up to eight quarters through a special points system based on risk factors in working life and can draw a general pension two years earlier than permitted under the main rule. The system recognises and allocates points based on the following risk factors:

- overpressure
- extreme temperatures
- noise
- night work
- rotating shift work
- repetitive work.¹⁰¹

The points system applies primarily to private sector employees but has also been recognised and used in certain pension systems for public employees.¹⁰² As the system was only introduced in 2014, it has not been possible for the effects to be fully evaluated yet. Nor have we been able to find any evaluation.

In addition, there is a special exemption and a third option for early withdrawal of a general pension for those who have been exposed to asbestos in working life.¹⁰³

An additional complicating factor is that there are almost 30 so-called “special schemes” (régimes spéciaux) in certain occupations or sectors. These special schemes have their own rules covering everything from insurance time, allowance levels and the pension

¹⁰⁰ Service Public website: www.service-public.fr, retrieved 26 February 2021.

¹⁰¹ Service Public website: www.service-public.fr, retrieved 26 February 2021.

¹⁰² Service Public website: www.service-public.fr, retrieved 26 February 2021.

¹⁰³ Service Public website: www.service-public.fr, retrieved 26 February 2021.

age. Many of these have a long history and were both debated and subject to reforms or attempts to reform during the 2000s.¹⁰⁴

6.4.4 Reduced work ability

In France, there are options for early retirement in the event of reduced work ability (early retirement pension) that is not due to an occupational injury and a benefit similar to the Swedish disability pension that can be paid as a complement if the early retirement pension is small. The allowances can be paid up to the age of 62. After that, the individual can request a public pension instead.

As stated, a public pension can only be paid at the age of 62 but people with disabilities and reduced work ability can draw such a pension earlier. The minimum age at which such individuals can draw a general pension is 55 years but the minimum age depends on both for how many quarters the individual has been insured and the number of validated quarters the individual has. There is a difference between the number of quarters that apply to the public and private sectors. The reduction of the work ability must be permanent and amount to a minimum of 50 per cent, irrespective of sector.¹⁰⁵

There is also a social security benefit in France that resembles the Swedish disability pension and which under certain conditions, can be paid in combination with the early retirement pension. Disability pensions can be paid to people who have a reduced work ability due to injury or illness, irrespective of age.¹⁰⁶

Furthermore, under certain conditions individuals with a reduced work ability due to illness or injury sustained in working life can also draw an early general pension. The individual work ability must be permanently impaired as a result of an illness or injury in the workplace. Given this and through the fulfilment of several other conditions, the individual can receive a full general pension even if

¹⁰⁴ [Social insurance pension] Social security l'assurance retraite website: www.lassuranceretraite.fr/, retrieved 8 April 2021.
Wikipedia website: fr.wikipedia.org, retrieved 8 April 2021.

¹⁰⁵ [French State Administration] Service Public website: www.service-public.fr, retrieved 26 February 2021. www.service-public.fr, retrieved 26 February 2021.

¹⁰⁶ Service Public website: www.service-public.fr, retrieved 26 February 2021.

the insurance period is shorter than the actual number of quarters required for full level.¹⁰⁷

6.4.5 Part-time solutions for older adults

There are two solutions for private sector employees that combine income from work with a pension. We refer to these as downsizing and part-time pensions.

With downsizing, an employee can receive parts of the public pension and the pension from certain occupational pension agreements while simultaneously continuing to work as an employee. The individual must be at least 60 years of age and work 40 to 80 per cent of full-time. The individual must also have validated at least 150 quarters for a full pension. If the individual has fewer quarters than what is required for a full general pension, the pension is paid at a lower level.¹⁰⁸

The part-time pension solution means it is possible to combine certain types of work with a pension. The types of work that may be carried out are relatively limited and the individual must have validated the maximum number of quarters for a public pension and occupational pension in order to be able to use this solution.¹⁰⁹

6.5 Greece

The pension system in Greece is an interesting case as it has a comprehensive early pension solution for certain occupations and industries. Further to this, we have not found any significant solutions for early retirement.

6.5.1 The pension system

There are three primary parts that make up the Greek pension system: old-age pension, income pension and social pension¹¹⁰.

¹⁰⁷ Service Public website: www.service-public.fr, retrieved 26 February 2021.

¹⁰⁸ Service Public website: www.service-public.fr, retrieved 26 February 2021.

¹⁰⁹ Service Public website: www.service-public.fr, retrieved 26 February 2021.

¹¹⁰ The European Commission uses another definition of the pension system. We have chosen to change them for clarity. The three parts respectively: Main pension provision, Auxiliary pension provision and Means-tested benefits.

The ordinary pension age is 67 years, but it is possible to retire early from the age of 62 with a reduced pension. Individuals with 40 pensionable years can retire from 62 years of age without a reduced pension.¹¹¹

In Greece, the old-age pension is a defined benefit pay-as-you-go system paid directly from the state budget.¹¹² The pension consists of a fixed amount, but this amount can be reduced if the individual has less than 20 pensionable years or less than 40 years of residence (12,000 days) in the country. The income pension is a defined benefit system that is dependent upon both the life income of the pensioner and the length of working life.¹¹³ The amount of the pension is calculated as a proportion of the average income. The proportion depends on how many pensionable years the individual has worked. The first 15 years provide 0.77 per cent and the proportion then gradually increases to 2 per cent after 39 years. Each pensionable year is calculated with its own proportion.¹¹⁴ An individual with 17 pensionable years therefore has a 0.77 per cent proportion in the first 15 years and 0.84 per cent for the next two years.

Both the old-age pension and the income pension are indexed in accordance with GDP growth and the consumer price index. There is no minimum or maximum pension. Both pensions can be drawn in advance from the age of 62. This involves a 0.5 per cent reduction per month in the old-age pension that the individual draws an early pension. In the event of an early withdrawal, the income pension will be lower as it is based on life income.¹¹⁵

The social pension is a means-tested pension for supporting those who have no other pension. It consists of a fixed contribution.¹¹⁶ The social pension has a lower age requirement at 65 years and can be paid even earlier to individuals with a disability of at least 80 per cent. The applicant must not have a gross income exceeding EUR

¹¹¹ European Commission - Economic Policy Committee - Ageing Working Group. *Ageing Projections Exercise 2018: Greek Pension System Fiche* 2018.

¹¹² European Commission - Economic Policy Committee - Ageing Working Group. *Ageing Projections Exercise 2018: Greek Pension System Fiche* 2018.

¹¹³ [Agency for Employment and Social Security] Υπουργείο Εργασίας και Κοινωνικών Υποθέσεων ypergasias.gov.gr, retrieved 21 May 2021.

¹¹⁴ European Commission - Economic Policy Committee - Ageing Working Group. *Ageing Projections Exercise 2018: Greek Pension System Fiche* 2018.

¹¹⁵ Social Security Administration. *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Greece.

¹¹⁶ [Agency for Employment and Social Security] Υπουργείο Εργασίας και Κοινωνικών Υποθέσεων ypergasias.gov.gr, retrieved 21 May 2021.

8,884 per year and the household income must not exceed EUR 11,000 per year and the other pension income must not exceed EUR 643 (2018).¹¹⁷

There are a few other pension systems that are at the stage of being phased out. There are also occupational pensions and private pensions, but they are uncommon.¹¹⁸

6.5.2 Long working life

Under the ordinary pension system, there is a lower age limit for those who have many pensionable years. It is possible for those who have 40 pensionable years to draw a pension from the age of 62 instead of the usual age of 67.¹¹⁹ Pensionable years are primarily based on years of work, but social care for disabled children or other relatives may also qualify. Previously (2018), the qualifying requirements for women were lower at 10,000 pensionable days or approximately 33.3 pensionable years.¹²⁰

6.5.3 Specific occupations and work tasks

The pension scheme in Greece for individuals with arduous jobs is among the most comprehensive in Europe.¹²¹ A special pension for those with arduous jobs is paid to 13 per cent of all old-age pensioners and disability pensioners. The proportion has fallen sharply during the period 2009–2014. Of those employed in the private sector in 2009, 41 per cent of all individuals insured under the social insurance organisation for the private sector (IKA) were insured as employees in arduous jobs. The proportion was only 30 per cent in 2014. The most important explanation for the decreasing

¹¹⁷ Social Security Administration. *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Greece.

¹¹⁸ European Commission - Economic Policy Committee - Ageing Working Group. *Ageing Projections Exercise 2018: Greek Pension System Fiche* 2018.

¹¹⁹ [Agency for Employment and Social Security] Υπουργείο Εργασίας και Κοινωνικών Υποθέσεων ypergasias.gov.gr, retrieved 21 May 2021.

¹²⁰ Social Security Administration. *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Greece.

¹²¹ ESPN. *Retirement regimes for workers in arduous or hazardous jobs in Europe*. 2016, pp. 28–30.

proportion is restrictions on which occupations, workplaces and work activities are considered arduous.¹²²

Pensioners who have worked in arduous jobs have a lower ordinary pension age at 62 years. There are also other options for those in the group to draw an even earlier, reduced pension from the age of 60, as well as certain specific groups of pensioners with arduous jobs who can retire at the age of 57. The pension rules for arduous work are part of the ordinary pension system. The requirements for qualifying for an old-age pension are lower for those employed in arduous jobs. They only need to work for 10,500 days, of which a minimum of 7,500 are in arduous jobs, compared to 12,000 for others.¹²³

Table 8. Age of retirement and the option of early retirement

	<i>Employees in laborious and hazardous jobs</i>		<i>Other employees</i>	
	Age of retirement	Minimum pensionable period	Age of retirement	Minimum pensionable period
Full pension	62	35 pensionable years, of which a minimum of 25 years is in arduous work	62 67	40 pensionable years 15 pensionable years
Reduced pension	62	15 pensionable years, of which a minimum of 12 years is in arduous work	67	15 pensionable years
Early reduced full pension	60	35 pensionable years, of which a minimum of 25 years is in arduous work	-	
Early reduced pension	60 (or 57 for special groups MFA)	15 pensionable years, of which a minimum of 12 years is in arduous work	62	15 pensionable years

Source: ESPN. Thematic Report on retirement regimes for workers in arduous or hazardous jobs – Greece. 2016. Own translation

¹²² ESPN. *Retirement regimes for workers in arduous or hazardous jobs in Europe*. 2016. p. 5.

¹²³ ESPN. *Retirement regimes for workers in arduous or hazardous jobs in Europe*. 2016. pp. 7–9.

The targeted measures are funded with a higher employer contribution for employees and employers

Financing can affect the perception of legitimacy of the measure but can also create incentives. In Greece, both the employee and the employer pay higher contributions for employees in arduous work at 45.66 per cent of the gross salary, compared to others who pay 40.06 of the gross salary. In general, this means that pensioners from the group receive a higher pension than other pensioners. The employee and the employer pay similar proportions of the higher contribution. For certain groups of employees in arduous work, certain miners, air workers and underwater workers there are additional contributions for which the employer pay two-thirds of the contribution.¹²⁴

Arduous work is defined through a list of occupations and workplaces

Arduous work is defined through 38 occupations and works tasks, as well as 61 workplace types. All are in the private sector. The original legislation on pensions from employees in arduous work had no definition of which employees would be covered. Subsequently, specific occupations, workplaces and work activities were given statutory definitions. The legislation has been supplemented by ministerial decisions over the years that have added new groups. In 2011, a reform of the list was conducted, which is the list in current use. Before the reform, the listed included around 580 categories and subcategories.¹²⁵ There are currently two groups, workplaces and occupations/work tasks. Workplaces are often an industry, such as the textile industry, but only some of the employees in the industry are included.¹²⁶

The following lists are not exhaustive. They have been translated from Greek and do not have the context provided by the original source and therefore, should be read with caution. Using examples of workplaces, we attempt to provide a true picture and primarily

¹²⁴ ESPN. *Thematic Report on retirement regimes for workers in arduous or hazardous jobs – Greece*. 2016. p. 8.

¹²⁵ ESPN. *Thematic Report on retirement regimes for workers in arduous or hazardous jobs – Greece*. 2016. p. 6.

¹²⁶ [Institute of Labour of the General Confederation of Greek Workers] Δίκτυο Υπηρεσιών Πληροφορησης & Συμβουλευτικής εργαζομενων, *Ασφαλιστικά Θεμάτα - Η ασφάλιση στα βαρεα και ανθυγιεινα επαγγέλματα*. 2014.

highlight examples not requiring clarification of which work tasks are referred to within the workplaces.

Workplaces: Mining and quarrying, limestone processing, construction, cement industry, marble carving, ceramics, staff loading and unloading transport vehicles without mechanical equipment, tanners, butchers, iron industry, textile industry, laundry, dairy, and heavy vehicle drivers. A total of 61 workplaces have been defined as arduous.¹²⁷

Occupations/work tasks: Deep Sea fishermen, cold room workers (less than 4 degrees Celsius), stonemasons, sea sponge divers, shoemakers, night workers, full-time cleaners in large parts of the private sector. A total of 38 types of work tasks have been defined as arduous.¹²⁸

More often it is women who have a reduced pension

Women tend to have shorter working lives, retire earlier and consequently have lower pensions. Men work more often until the pension age and therefore receive a full pension more often with a higher pension income than women. Approximately 27 per cent of all new retirees from arduous work in 2014 were women. Of these, 98 per cent had a reduced pension because it had been drawn early. The corresponding proportion for men was only 6 per cent. There is a clear gender difference in pension income. On average, in 2014 the pension for those newly retired from arduous work was EUR 1,247 for men and EUR 609 for women.¹²⁹

The targeted measures are not integrated with a broader policy solution

The targeted measures for workers in arduous work are not part of a broader policy initiative. There are no measures supporting older

¹²⁷ [Institute of Labour of the General Confederation of Greek Workers] Δικτυο Υπηρεσιων Πληροφορησης & Συμβουλευτικης εργαζομενων, *Ασφαλιστικα Θεματα - Η ασφάλιση στα βαρεα και ανθυγιεινα επαγγέλματα*. 2014.

¹²⁸ [Institute of Labour of the General Confederation of Greek Workers] Δικτυο Υπηρεσιων Πληροφορησης & Συμβουλευτικης εργαζομενων, *Ασφαλιστικα Θεματα - Η ασφάλιση στα βαρεα και ανθυγιεινα επαγγέλματα*. 2014.

¹²⁹ ESPN. *Thematic Report on retirement regimes for workers in arduous or hazardous jobs – Greece*. 2016. pp. 11–12.

adults in seeking work, partial retirement, reduced working hours for older adults or similar. The pension rules for the group are not integrated with any other measures.¹³⁰

Early retirement appears to be a substitute for disability pensions

Many who work in laborious and hazardous jobs choose to continue working until the regular pension age. They do so despite both the fact that they can retire early and the increase in the ordinary pension age. The main reason is thought to be the difference between expected salary and pension.¹³¹

Only 0.2 per cent of these retirees receive a disability pension, compared to approximately 18 per cent of other retirees. This indicates that the disability pension is being used as an alternative path to early retirement.¹³² Alternatively, it may be dependent upon the special options that come with the pension from arduous work reducing the need for a disability pension.

6.6 Iceland

The islandic pension system is not of direct relevance for us to examine in this context, as there are few early retirement solutions. Rather it is interesting to study to understand how Iceland has managed to achieve one of the highest ages of retirement without comprehensive early retirement solutions.

6.6.1 The pension system

There are three parts of the pension system in Iceland - social insurance (public pension), mandatory pension funds and supplementary pension savings. The supplementary pension savings represent a form of voluntary private pension savings.¹³³

¹³⁰ ESPN. *Thematic Report on retirement regimes for workers in arduous or hazardous jobs – Greece*. 2016. pp. 6–7.

¹³¹ ESPN. *Thematic Report on retirement regimes for workers in arduous or hazardous jobs – Greece*. 2016. p. 10.

¹³² ESPN. *Thematic Report on retirement regimes for workers in arduous or hazardous jobs – Greece*. 2016. pp. 10–11.

¹³³ Nordic co-operation website: www.norden.org, retrieved 11 June 2021.

The public pension is income-, residence- and age-tested. Receiving a full national pension requires 40 years of residence in the country and for the person to be 67 years of age. The public pension consists of a fixed amount. Individuals with 3–40 years of residence receive a partial pension that is proportional to the number of years the individual has lived in Iceland. The public pension is reduced by 45 per cent for income over ISK 100,000 from gainful employment and ISK 25,000 from other pension and capital income. Since 2017, disability pensioners have followed a slightly different system for contributions and income assessment.¹³⁴

The mandatory pension fund savings are tested in the same way as the public pension. For private sector employees to receive a full pension requires an age of 67 and 40 years of contributions. For public sector employees, the requirement is an age of 65 and 32 years of contributions. For those in the private sector, there is an option for early retirement but the pension will be lower. The mandatory pension funds provide 1.4 per cent of the average life income per year of contributions. Those who have lived in Iceland for 40 years will receive at least 56 per cent of their average life income.¹³⁵

Iceland has one of the highest effective retirement ages among the OECD countries at 69.5 years for men and 68 years for women. At the same time, the rate of employment among people between the ages of 55 and 69 is one of the highest among comparable countries. Some reasons for this are that there are no special options for early retirement, that the country has long-term access to jobs for older adults, positive norms around work and the fact that many are dissatisfied with how much they will receive from the pension.¹³⁶

For a high pension from the pension funds, it is possible to retire early with a public pension

It is possible to retire early from the age of 65 with a public pension. This requires that the individual has a total pension income per month of a minimum of ISK 239,484 (2018), primarily from the public pension and the mandatory pension funds. The early retirement

¹³⁴ Email dated 10 June 2021 from Professor Stefan Olafsson, University of Iceland.

¹³⁵ Social Security Administration. *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Iceland.

¹³⁶ ESPN. *Retirement regimes for workers in arduous or hazardous jobs in Europe – Iceland*, 2016. s. 5.

involves a 0.5 per cent per month reduction in the pension that the individual draws as an early pension.¹³⁷

The option of early retirement with a lower pension through the pension funds

It is possible to retire earlier than what is allowed under the public pension through the pension funds. The earlier pension is funded through a lower pension. The earliest it is possible to start the pension is from the age of 60. The amount by which the pension is reduced depends on whether the individual is a public or private sector employee. For those employed in the public sector, the pension is reduced by 0.5 per cent per month as the individual draws an early pension. For those employed in the private sector, the reduction differs depending on age and occupation.¹³⁸

Table 9. Reduction of income for manual (private) and public employees for the years in which the pension is drawn early. The reduction measured as a percentage of the average pension.

Age	Manual workers	Public employees
66	8.64	6
65	16.32	12
64	23.16	18
63	29.40	24
62	35.04	30
61	40.08	36
60	44.64	42

Source: ESPN (2016) Retirement regimes for workers in arduous or hazardous jobs in Europe – Iceland. 2016.

¹³⁷ Social Security Administration. *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Iceland.

¹³⁸ ESPN. *Retirement regimes for workers in arduous or hazardous jobs in Europe – Iceland*, 2016.

6.6.2 Specific occupations and work tasks

Iceland offers few measures that enable people in arduous occupations or industries to exit the labour market early. Only seamen have the option of an earlier pension without reductions through the public pension. In order to qualify, the average requirement is 25 years of full-time work as a seamen with at least 180 registered days at sea per year. Seamen who qualify have the option of starting their pension from the age of 60 years. Relatively few seamen exercise the special right to early retirement. Early retirement lowers income sharply, which means that it is more common to change occupation at an older age than to draw a pension.¹³⁹

6.6.3 Reduced work ability

Iceland has a disability pension option. There are no special rules for working in arduous jobs or similar. An assessment of the work ability is required for a disability pension. Early disability pension results in a sharp reduction in pension income. At most, the general disability pension is about 60 per cent of the median salary for a full-time employee. The disability pension is then supplemented with an early pension from the mandatory fund savings.¹⁴⁰

6.6.4 Part-time solutions for older adults

It is possible to draw half the public pension if an individual gets as high an income from the pension fund savings so that together it is the equivalent of a full public pension. The half public pension has a higher ceiling for earned income, ISK 325,000 per month, compared to ISK 100,000 for a full-time pension.¹⁴¹ An amount of ISK 325,000 per month is equivalent to approximately 45 per cent of the average salary and half the median salary.¹⁴² Of all people aged between

¹³⁹ ESPN. *Retirement regimes for workers in arduous or hazardous jobs in Europe – Iceland*, 2016. pp. 8–9.

¹⁴⁰ ESPN. *Retirement regimes for workers in arduous or hazardous jobs in Europe – Iceland*, 2016.

¹⁴¹ [Icelandic Pensions Agency] Tryggingasofnun website: www.tr.is, retrieved 13 April 2021.

¹⁴² Statistics Iceland. *Distribution of earnings for full-time employees by sector, occupational group and sex 2014-2019*. 2021

55–74 years, 57.5 per cent work either full-time or part-time. Of those, 75 per cent work full time.¹⁴³

Iceland is differentiated by the great labour market mobility of older adults. Older people to a large extent both change jobs and go from full-time to part-time.¹⁴⁴ The high mobility is one of the reasons for the high effective age of retirement in the country.

6.7 Italy

Italy is another country that is of interest to investigate in more detail. There is high life expectancy and the population is ageing rapidly. Italy has a lower rate of labour force participation among older people than the Nordic countries and the actual age of retirement is lower. At the same time, pensions in Italy are comparatively high. People over the age of 65 have an income that is as high as the rest of the population.¹⁴⁵ This results in a pension system that is quite expensive and represents 16.2 per cent of GDP.¹⁴⁶ This can be compared to 7.2 per cent in Sweden.¹⁴⁷

6.7.1 The pension system

Italy has the same system as Sweden, i.e. a notional defined contribution (NDC) system. In contrast to Sweden, the state pension constitutes the full pension income. There is a voluntary private occupational pension system, but few participate in that system.¹⁴⁸

Italy has undergone several reforms since 1992, the so-called “Amato Reform” in 1992, the “Dini Reform” in 1995 and the “Monti-Fornero Reform” in 2011. All reforms were intended to prolong working life in the population. Among other things, the entire pension system was

¹⁴³ Statistics Iceland. *Labour market by sex, age, region and education 1991–2020*. 2021.

¹⁴⁴ ESPN. *Retirement regimes for workers in arduous or hazardous jobs in Europe – Iceland*, 2016.

¹⁴⁵ OECD, *Pensions at a Glance 2019, How does Italy compare?* 2019.

¹⁴⁶ OECD, *Pensions at a Glance, country profiles – Italy*. 2019.

¹⁴⁷ OECD, *Pensions at a Glance, country profiles – Sweden*, 2019.

¹⁴⁸ OECD, *Pensions at a Glance 2019, How does Italy compare?* 2019

restructured, the pension age was raised and the number of pensionable years was increased.¹⁴⁹

Thus, the system is now contribution-based (NDC). The earlier system was a defined benefit system and was closed for new retirees in 1996. The earlier system calculated the pension on the last five years.¹⁵⁰ There are several transitional regulations in place and only those who started working in 1996 or later, receive their full pension from the NDC system.

Like Sweden, Italy has linked the pension age to life expectancy and in the future, the pension age will gradually increase from the current 67 years. At this age, an individual can also receive a minimum pension of approximately EUR 6,000 per year (assegno sociale). The majority exit working life much earlier than that. In 2017, the average age of newly retired pensioners was 63.4 years and 54.9 for those who received a disability pension.¹⁵¹ During 2011, a flexible window was introduced for retirement between the ages of 62 and 70 and this window is intended to widen with life expectancy. A minimum of 20 pensionable years is required to draw an old-age pension but only if the amount of the pension is not less than 1.5 times the age-related social allowance (assegno sociale).¹⁵² The window is only applicable to those who started working after 1996, i.e. after the Dini reform and who will therefore receive their full pension from the NDC system.

6.7.2 Long working life

There is an option for early retirement for those who meet a requirement for the number of pensionable years that is 42 years and 10 months for men and 41 years and 10 months for women.¹⁵³

Another option is available for younger cohorts, i.e. those who started working after the 1996 Dini reform. It is possible for these people to

¹⁴⁹ Bertolini S., et al., Retirement in a context of strong institutional uncertainty and territorial diversities: The case of Italy, in Hofäcker D., Hess M. and König, S. (Eds.), *Delaying Retirement. Progress and Challenges of Active Ageing in Europe, the United States and Japan*. Macmillan 2016.

¹⁵⁰ Social Security Administration. *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Italy.

¹⁵¹ [National Agency for Statistics] Istituto Nazionale di Statistica. Pensioners' living conditions, years 2016-2017. 2019.

¹⁵² OECD, *Pensions at a Glance, country profiles – Italy*. 2019.

¹⁵³ European Commission website: ec.europa.eu, retrieved 13 April 2021.

retire at the age of 64 after 20 pensionable years if the pension amount is greater than 2.8 times the age-related social allowance.¹⁵⁴ Therefore, this option is not available for low-income earners. For the same cohorts, there is also a bonus for individuals who have started working early. Pension contributions paid before the age of 18 are multiplied by 1.5 (1.7 under Act 335/1995). The pension is calculated using a so-called transformation coefficient that is roughly equivalent to the annuity divisor in Sweden for a person who has not reached 57 years as the person has already turned 57. The pension can then be paid out on the basis of 40 pensionable years.

A temporary regulation was introduced in 2019 that enables a person to retire at 62 years of age if the person has a minimum of 38 pensionable years. It is therefore known as the “quota 100” according to the sum of these two numbers (Act No. 4/2019). The option is open between 2019 and 2021. Although temporary, it is estimated that it will be very expensive. There are also many people who can take advantage of the options during the three-year period. It is estimated to be at its most expensive in 2021, as the total cost of regulation reaches EUR 9 billion for the whole year.

The pension paid under the quota 100 is slightly higher than the average. This means that it is primarily those who already have good pension conditions who will benefit from this regulation. A large proportion of the pension received by this group is from the earlier defined benefit system, which was more generous than the new defined contribution system. Furthermore, the pension under the quota 100 is not adjusted by the transformation coefficient, which takes the life expectancy into account.¹⁵⁵

6.7.3 Specific occupations and work tasks

There are special rules for certain groups that either increase their pension or allow an earlier exit from the labour market.

An individual who started working before 19 years of age (*Lavoratori precoci*) can receive a financial allowance if they have worked for at least 12 months before turning 19 and either

¹⁵⁴ European Commission website: ec.europa.eu, retrieved 13 April 2021.

¹⁵⁵ Casale D., Early retirement in the Italian social security system: some critical insights, *Italian Labour Law e-Journal*, 2020;13(1):103–124.

- has been unemployed
- has a minimum reduced work ability of 74 per cent
- is caring for a close relative
- has carried out particularly arduous and heavy work (Legislative Decree 21 April 2011, n.67)
- has carried out heavy work for a minimum of seven years in the last ten years or for a minimum of six years in the last seven years (including miners, crane operators, train drivers, truck drivers, shift workers in healthcare occupations, preschool teachers, agricultural workers, seafarers, unskilled work such as cleaning services).

Those who meet any of the requirements can retire after 41 pensionable years and the pension is calculated using the transformation coefficient (*coefficiente di trasformazione*) as if the individual had reached the age of 57, even if the person has not yet turned 57 years of age.

6.7.4 Reduced work ability

There is an option for early retirement based on reduced work ability (*pensione di inabilità*). In such cases, there is a requirement for five pensionable years, of which three years are within the last five years. The person also needs to stop working completely.¹⁵⁶

There is also a temporary allowance available for up to three years (*assegno ordinario di invalidità*) for which the individual is required to have a minimum reduced work ability of two-thirds. Then there is a requirement for the individual to have five pensionable years, of which three years are within the last five years. The person does then not have to stop working.¹⁵⁷

For those with 100 per cent reduced work ability and who need permanent help from an assistant in order to work, there is an additional benefit available (*pensione di invalidità civile*). It is paid

¹⁵⁶ [Italian National Agency for Social Insurance] Istituto nazionale della previdenza sociale. *Rente wegen Erwerbsunfähigkeit*. 2021.

¹⁵⁷ [Italian National Agency for Social Insurance] Istituto nazionale della previdenza sociale. *Rente wegen Erwerbsunfähigkeit "Pensione di inabilità" für Öffentlich Bedienstete*. 2021.

from the age of 18 until the age of retirement and the individual does not have to stop working.

6.7.5 Unemployed older adults

In certain cases, those who have been laid off can receive an allowance until they are entitled to receive the old-age pension. This can take place a maximum of seven years before the individual is entitled to receive an old-age pension. The employer pays the allowance, which is at the same level as the old-age pension at the time of the unemployment.¹⁵⁸ The employer also takes over the pension payments during the period.

6.7.6 Part-time solutions for older adults

Italy has made several attempts at introducing part-time solutions for older adults without any great success. The most recent attempt was undertaken 2016 (Act 208/2015) and was a temporary option for part-time. The programme was open until December 2018, but few employees chose to take advantage of it. The programme was designed so that few workers in permanent jobs in the private sector could reduce their working hours by 40 to 60 per cent, a maximum of three years before the pension age. Getting a new employment contract was required. The employer paid the payroll tax for the time that the individual no longer worked in the form of a higher salary to the employee (23.8 per cent). This means that it was quite expensive for employers but beneficial for the employee. The state paid pension contributions as if the employee had continued with full-time work. Consequently, the pension would not be negatively affected by part-time work.¹⁵⁹

There could be several reasons as to why few people chose to take up this option. One reason could be the requirement for a new employment contract. The costs of change of a contract in Italy are high and there is a high degree of bureaucracy involved. Another reason may be that it was not easy to understand the program. Many

¹⁵⁸ [Italian National Agency for Social Insurance] Istituto nazionale della previdenza sociale. *Zur Rente hinführende Leistungen*. 2021.

¹⁵⁹ Belloni M., Partial retirement in Italy, in J. Mészáros (Ed.), *Work and Pension - Phased and Partial Retirement* Hungarian State Treasury, 2019.

people have low financial knowledge and the programme has a complex design. Better knowledge and information could have addressed this. A final reason could be that it was financially disadvantageous for the employer and therefore they preferred to have full-time employees.¹⁶⁰

6.7.7 Pensions in figures

Statistics for different types of pension show that in 2017, the average age for old-age pension is 63.4 years among new retirees. On average, those who were granted a disability pension are much younger: 54.9 years. Around 361,000 people received an old-age pension and 61,000 people were paid a disability pension.¹⁶¹

Table 10. New retirees in Italy (2017), type of pension

	<i>number</i>	<i>EUR</i>	<i>average age</i>
Old-age pension	361,399	24,474	63.4
Pension for reduced work ability	60,609	13,552	54.9
Survivors' pension	251,630	18,329	70.2
Pension for accident	13,838	13,188	56.1

Source: [Italian National Agency for Statistics] Istituto Nazionale di Statistica. *Pensioners' living conditions*, years 2016–2017. 2019.

6.8 Norway

The pension system in Norway is fundamentally the same as the pension system in Sweden. Many people work to a relatively old age compared to most other countries.

¹⁶⁰ Belloni M., Partial retirement in Italy, in J. Mészáros (Ed.), *Work and Pension - Phased and Partial Retirement* Hungarian State Treasury,

¹⁶¹ [Italian National Agency for Statistics] Istituto Nazionale di Statistica. *Pensioners' living conditions*, years 2016–2017. 2019.

6.8.1 The pension system

It is possible to draw either a full or partial pension from the age of 62. This will be tested with regard to the amount of the pension up to 67 years of age. Those who should receive a pension at 67 years of age that will be less than a certain amount, cannot draw a pension early. If the accrued pension right is too small to start drawing a pension at 62 years of age, as a general rule it may still be possible to start drawing a pension a few months or years later. The condition is that the pension that is subject to an actuarial reduction is not too low at the age of 67.

There are special age limits in some occupations that mean that the employees have both the right and the obligation to leave the employment before they turn 70 years of age. There is one design that means that those who leave their employment before turning 70 years of age as a result of such a rule, must not incur negative consequences with respect to the annual pension amount. The age at which such early retirement is possible differs significantly between occupations.

There are no special early retirement rules for people who have started working at a young age. The options for leaving early via allowance systems other than pensions are limited. The majority of those for whom it is possible to leave early via such systems, do so through disability allowance. The number of people who are leaving the labour market early with such allowances has seen a significant decrease in recent years.

The minimum pension age in Norway in 1997 was 62 for large groups of public and private employees via occupational pension rules but the normal pension age was and is 67. A major reform of the general pension system was implemented in Norway on 1 January 2011 following a legislative amendment decided upon in 2009. The new system meant a transition from a defined benefit system to a defined contribution system, the primary features of which correspond to the system that exists in Sweden. The new system covers all those born in 1963 and later. Those born prior to 1954 are covered by the previous system, while those born from 1954 to 1962 are covered by a combination of the two systems. From 2011, it became possible for everyone to start drawing a pension from 62 years of age up to 75 years of age (it is not possible to start drawing a pension over the age of 75). The pension is determined by the age at

which it is first drawn and that payments that have been made up to the point when it is first drawn. Consequently, an earlier withdrawal means a lower pension and having had a lower income results in a lower pension. A deferred withdrawal means a higher pension as the expected number of years receiving a pension will then be less and the payments will also have then been made for more years. It is possible to draw a pension before the age of 67, but only if it will total a certain minimum amount referred to as “minimum pension” for a long time. It has now been renamed and is referred to as a “guaranteed pension”. As a result of this rule, in 2018 only 43 per cent of women had the option of drawing their old-age pension at the age of 62 but 69 per cent of men had this option. The difference is explained by the fact that men have had higher incomes and/or have been gainfully employed for more years than women. Consequently, many women are not able to draw a pension at 62 years of age as the pension that they should then have received from 67 years of age would be less than the minimum level intended for the system to guarantee for all retirees for life (however, they can often start drawing a pension at an age between 62 and 67).

The guarantee pension now has fundamentally the same design as that of the Swedish system. It is income-tested and is paid to those who have a low earned income pension and low incomes (if people have an income above a certain level there will be no guarantee pension paid).

Partial retirement is possible from 67 years of age (on 20, 40, 50, 60 or 80 per cent of full pension). It is also possible to start drawing a partial pension from 62 years of age (at 20, 40, 50, 60 or 80 per cent of a full pension), where again, it is given that the full-time pension from the age of 67 totals a certain minimum level.

The national pension system is complemented by an occupational pension system. The occupational pension systems for the private and public sectors were reorganised in the same direction as the national pension system in 2011 and 2018, respectively. Occupational pensions are mandatory for employees and voluntary for the self-employed.

It is possible to combine receiving a pension and continuing to work. The proportion doing this has increased significantly following the pension reform. An investigation indicates that 86 per cent of those

who drew an old-age pension early (before the age of 67) continued to work.

6.8.2 Specific occupations and work tasks

Certain occupational groups are subject to special age limits for drawing a pension, where drawing a pension early does not lead to a lower pension at the normal pension age. This applies primarily to occupations in the public sector but some private sector occupations are also included. Occupations subject to such rules include police officers, military staff, healthcare staff, drivers and pilots. The occupations include approximately 10 per cent of government employees and significantly more of those who are employed by municipalities and counties (regions) but approximately only 2 per cent of private sector employees. The justification for a lower retirement age in certain occupations is either because the occupations are particularly arduous, such as for miners or that with age there is a reduced ability that can render people a danger to others at work, such as pilots.

A study of older people in working life in Norway produced some surprising results. The study is based on interviews of just over 6,000 persons. The study investigates how tiredness among those who are working varies with age with controls made for a number of other characteristics. The study found that the proportion is lower with a higher age of those who are working (a partial explanation may be selection). A follow-up with those who responded indicates that those who report tiredness are not leaving working life to a greater extent than what others do.¹⁶²

The age at which an early pension can be drawn varies between occupations. Negotiations are currently underway regarding the modifications that should be made to the new system. There are rules regarding the age from which it is possible to exit the labour force early, as well as requirements regarding length of employment in the occupation in order for an individual to be entitled to such an early pension. The lowest age for retirement is 41 for ballet dancers at the Norwegian Opera. Pilots can retire at the age of 55 years, the remainder of the flight crew and military staff can retire at 60 years of

¹⁶² Herlofson, K. and Hellevik, T., Eldre i arbeidslivet – Slitenhet og yrkesavgang. *Søkelys på arbeidslivet*. 2019;36(4)..

age and ambulance drivers, nurses and miners can retire at 65 years of age. See West Pedersen (2016) for a list of a selection of occupations with these types of rules and Midtsundstad and Nielsen (2014, pp. 108–112) for a list of the many occupations within the municipal and county municipal sector with these types of rules for early retirement. The majority of occupations in the municipal and county municipal sector that have a pension age lower than 67 years of age have a pension age of 65.

The ages specified here are obligatory for everyone employed in the occupation in the sense that people are not permitted to continue working in the occupation. Consequently, they cannot choose to retire at a later age. In April 2021, the Government presented a Bill that included a proposal for the removal of the rule that an employee must stop working at the age limit.¹⁶³ The Storting decided to approve the proposal on 7 June 2021. This means that those who are subject to such rules regarding a lower pension age now have the right to work up until the age of 70.

Mention should also be made here of two other examples of occupations that are covered by another system. There is a requirement for seafarers to have 150 months in order to be entitled to a complementary allowance in the event of early retirement and there is a requirement to have worked as a seafarer for a minimum of 30 years in order to receive full compensation in the event of early retirement. The requirement for fishermen to receive some compensation is to have worked in the occupation for a minimum of 15 years. A minimum of 30 years worked as a fisherman is the requirement for entitlement to full compensation in the event of early retirement.

6.8.3 Reduced work ability - disability benefit

Receipt of a benefit referred to as a disability benefit enables some people to leave working life early on the basis of a permanent disability. Disability benefits can be paid to people aged from 16 to 66 years who have a disability. In order to receive an allowance in the form of a disability benefit, there is a requirement that the person

¹⁶³ Prop. 138 L til Stortinget, Endringer i lov om aldersgrenser for offentlige tjenstemen m.fl. og lov om pensjonsordning for sykepleiere (fjerning av plikten til å fratre ved særaldersgrense). 2021.

has a minimum 50 per cent reduced work ability. In order to receive a full allowance in the form of a disability benefit, the requirement is that the person has reduced work ability of 100 per cent.

The proportion of those who receive disability benefits is higher with increased age. Older people who receive disability benefits must draw an old-age pension when they turn 67 years of age. Disability benefits are the most common obstacle to the option of drawing an early pension.

In recent decades, the proportion of those who receive disability benefits aged between 62 and 67 has decreased. In 2000, 40 per cent in this age group received disability benefits, compared to 29 per cent in 2018. An important part of the explanation for this change is most likely the 2011 pension reform, but it is not the only explanation as the decrease started before 2011.

Other forms of allowance and early exit from working life

In certain respects, the same rules apply as for disability benefits to those with allowances that are due to unemployment. It is not possible for them to receive such allowances after the age of 67. The same restriction does not apply to this type of allowance with regard to the accrual of rights to an old-age pension from the age of 67. The unemployment benefit is available for a period of 104 weeks and can be a path out of the labour market ahead of the normal pension age for those who have a maximum of two years to go before reaching the pension age.

In the event of illness, an allowance is paid in the form of sickness benefit. An allowance received for illness is counted as pensionable income. Having an allowance in the form of a sickness benefit for a longer period (maximum 52 weeks) is less common than leaving the labour market before the normal pension age.

6.8.4 Pensions in figures

In Norway, a relative high proportion of older adults are employed. Of the countries in Europe. It is higher in Iceland, while Sweden has a higher proportion of old-age employment than in Norway in some but not all age groups. A comparison of the share of people employed in the OECD countries aged 55–64 shows that only Iceland, New

Zealand, Sweden and Japan have a higher share than Norway.¹⁶⁴ The same study also indicates that there is a clear increase over time in the share who are employed in Norway among the age groups from 55 up to 75 years of age.

In 2019, the proportion of people employed in Norway in the 55–64 age bracket was 72.6 per cent, 28.0 per cent in the 65–69 age bracket and 7.8 per cent among those aged 70–74 years. The proportion of people employed in each age group is higher among men than among women and higher among those with higher education than those with other forms of education. The proportion of those employed who work part-time increases with increasing age.¹⁶⁵

6.9 Portugal

The Portuguese pension system is characterised by many special pension solutions. The country has many options for early retirement and many people who use them.

6.9.1 The pension system

Many systems constitute the pension system in Portugal in which the old-age pension¹⁶⁶ is the largest and most important. The pension system has two mechanisms for providing the lowest protection, the minimum pension in the old-age pension and the social pension for those who do not have a minimum pension. 38 per cent of those who receive old-age pension receive a minimum pension. Both the public and the private sector have occupational pension schemes, but they are used by few.

Ordinary pension age is linked to life expectancy. In 2021 it was 66 years and 6 months. There are several options for early retirement that are used by many – 9.7 per cent of men and 6.3 per cent of women. The proportion continues to increase despite the fact that early retirement involves one of the sharpest decreases of the old age pension of all the OECD countries.

¹⁶⁴ Osloeconomics, Aldringens betydning for helse, arbeidskapacitet og arbeidsprestasjoner.

Rapport utarbeidet på oppdrag fra Senter for seniorpolitikk. 2018.

¹⁶⁵ Hauge L., Seniorer i arbeidslivet (Seniors in working life). *Centre for Senior Policy*. 2019.

¹⁶⁶ Sometimes called "Earnings-related mandatory pensions"

The sustainability factor is used to calculate pensions under the Portuguese pension system. The sustainability factor is life expectancy in 2000 at the age of 65 divided by life expectancy at the age of 65 in the year in which the pension is requested.¹⁶⁷

The old-age pension is the core of the Portuguese pension system

The most significant part of the Portuguese pension system is the defined benefit pay-as-you-go system for old-age pension, Pensão de Velhice. In order to be eligible for an old-age pension, the person must have a minimum of 15 pensionable years.¹⁶⁸ This minimum requirement decreases to ten years if the years were before 1994.¹⁶⁹

The amount of the old-age pension is linked to working life income and pensionable years. For less than 21 pensionable years, 2 per cent of the reference income for each pensionable year is paid as a pension. For a minimum of 21 pensionable years up to 40 years, the proportion of the reference income varies between 2.0 and 2.3 per cent depending on the amount of the reference income. The reference income is the average monthly income for each pensionable year.¹⁷⁰ In the event of more than 40 pensionable years, the 40 best years are used.¹⁷¹

The minimum pension for an old-age pension varies depending on how many pensionable years the individual has and in principle follows an index, "Índice dos Apoios Sociais" or IAS. Minimum pension can be given at three levels, 66 per cent of IAS (15 to 20 pensionable years), 72 per cent of IAS (21 to 30 pensionable years) and 90 per cent of IAS (at least 31 pensionable years).¹⁷² In 2020, the IAS was established at EUR 438.81.¹⁷³ Approximately 38 per cent of all pensioners receive a minimum pension (2016).¹⁷⁴

¹⁶⁷ OECD, *OECD Reviews of Pension Systems - Portugal*, 2019, pp. 80–81.

¹⁶⁸ OECD, *OECD Reviews of Pension Systems - Portugal*, 2019, p. 30.

¹⁶⁹ OECD, *Pensions at a glance 2019: Country Profiles – Portugal*, 2019

¹⁷⁰ Social Security Administration, *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Portugal.

¹⁷¹ OECD, *OECD Reviews of Pension Systems - Portugal*, 2019, p. 70.

¹⁷² OECD, *OECD Reviews of Pension Systems - Portugal*, 2019, p. 41.

¹⁷³ [Portuguese Agency for Labour, Solidarity and Social Insurance], *Finanças e trabalho, solidariedade e segurança social (2020) Regulation 27/2020*, Diário da República no. 22/2020, Series I of 2020-01-31.

¹⁷⁴ OECD, *OECD Reviews of Pension Systems - Portugal*, 2019, p. 47.

The pension amount is corrected on an annual basis through the recalculation of previously earned income at 75 per cent based on consumer price index (excluding housing) and at 25 per cent based on income growth in society. The recalculation of previously earned income cannot increase the income by more than inflation plus half a per cent.¹⁷⁵

The social pension operates as a minimum protection

The social pension is for those who do not qualify for the income-based old-age pension. The social pension is means-tested and paid to those who do not receive an old-age pension. In order to qualify, single people must have a monthly income of less than 40 per cent of IAS and couples must have an income of less than 60 per cent of IAS.¹⁷⁶

The many paths to early retirement in Portugal

Portugal has several paths that make it possible retire early. It is possible for individuals to make their own decision to retire, but the options for early retirement have been limited. The age for early retirement was raised from 54 to 55 years in 2007. The option of early retirement was paused in 2012 and returned in 2015 with the pension age raised to 60 years.¹⁷⁷

¹⁷⁵ Social Security Administration, *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Portugal.

¹⁷⁶ OECD, *OECD Reviews of Pension Systems – Portugal*, 2019, p. 45.

¹⁷⁷ OECD, *OECD Reviews of Pension Systems – Portugal*, 2019, p. 59.

Table 11. Historical development of the pension system in Portugal

<i>Retirement age</i>	<i>Convergence between women and men at 65 (1999)</i>	<i>Retirement age raised to 66 and linked to life expectancy (2014)</i>	
Accrual period	Minimum years of contributions for a pension raised from 10 to 15 years (1993)	Number of years after which accrual stops increased from 37 to 40 years (1999)	Bonus of 10% per year of late retirement for those with more than 40 years of contributions (1999)
Benefit formula	Reference wage: best 10 out of last 15 years (1993)	Accrual rate set at 2.0% (previously 2.2%) (1999)	
Sustainability factor	Introduction (2007)	Abolishment for retirement from normal retirement age (2014)	
Early retirement	Access to the long-term unemployed from age 55 with 20 years of contributions (1999)	Raised from age 54 to 55 (2007)	Early retirement suspended (2012) re-enacted in 2015 but at age 60
Penalty	4.5% per year of anticipation (1999)	6% per year of anticipation (2007)	
Civil servant	Start convergence of rules with general regime (1999)	Closed for new entrants (2006)	

Notes: Table retrieved from OECD (2019), OECD Reviews of Pension Systems Portugal, p. 59.

6.9.2 Long working life

There is a special option for early retirement for people who have very long careers and for those who started working at a young age. The benefit was extended in 2018. Individuals who are at least 60 years old and have more than 48 pensionable years and those who have 46 pensionable years or more and started working at the age of

14 or earlier are entitled to early retirement without a reduction of their pension.¹⁷⁸

The extension of the option for early retirement for those with many years of gainful employment has increased the inequality in the Portuguese pension system. Primarily it is men who have long working lives and subsequent access to this option.¹⁷⁹ Women use other options for early retirement that lead to reductions to a greater extent, see also section 6.9.4.

It is also possible to choose to draw the old-age pension early. This can be done from 60 years of age if the person has a minimum of 40 pensionable years. Drawing the pension early involves reductions of the pension. Initially the pension is multiplied by the sustainability factor. For each calendar month, the pension before the normal pension age is then reduced by 0.5 per cent. For each pensionable year over and above the first 40, four months are removed from the reduction. Approximately 2.2 per cent of women and 3.9 per cent of men aged 55–69 take early retirement.¹⁸⁰

6.9.3 Specific occupations and work tasks

Some occupational groups with laborious work tasks have special options for early retirement. These groups are primarily mining and quarrying workers, seafarers, deep sea fishermen, firefighters, ballet dancers and embroiderers in Madeira. There is a significant difference in how early retirement can be started from 50 years and one month for miners to 65 years for pilots.¹⁸¹ The number of workers in those occupations is small.¹⁸²

In general, this form of early retirement is excluded from being multiplied by the stability factor. This is different to other forms of early retirement and makes this pension higher than for other forms of

¹⁷⁸ Social Security Administration, *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Portugal.

¹⁷⁹ Manuela A., Retirement Pension Reforms in Six European Social Insurance Schemes between 2000 and 2017: More Financial Sustainability and More Gender Inequality? *Social Policy and Society* 2019;18(4):501–515.

¹⁸⁰ Social Security Administration, *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Portugal.

¹⁸¹ [Portuguese Social Insurance Agency] Segurança Social website: www.seg-social.pt. retrieved 23 March 2021.

¹⁸² OECD, *OECD Reviews of Pension Systems - Portugal*, 2019. p. 145.

early retirement. The requirement is that the individual has worked in the occupation 15–30 years. There are no requirements for these working years to be close to time of retirement or at the end of working life.¹⁸³

The pension for early retirement for miners is slightly different from the others. Instead of qualifying after a number of years in the occupation, every two years in the occupation provides one year of earlier pension, the earliest being at 50 years and one month. In addition, there are exceptional circumstances under which it is also possible to receive the pension five years earlier. Nor does the early retirement require that the person must have worked directly in mining as associated tasks are also counted, such as the processing and enrichment of the ore. For those who have primarily been employed in mining work and a maximum of 20 per cent in associated tasks, the pension is increased by 2.2 per cent.¹⁸⁴

Four of five who belong to these special occupational groups are men. They tend to retire earlier than other groups by way of the special options. They also tend to have a higher pension income than other pensioners.¹⁸⁵

6.9.4 Unemployed older adults

There are options for early retirement for those who have exhausted the right to unemployment benefits. There is a certain age requirement for these options, as well as for the individual to have a certain number of pensionable years. This pension is reduced by the sustainability factor in similar manner to the ordinary early pension. The amount of the pension then differs depending on age and duration of unemployment. Approximately 4.1 per cent of women and 5.6 per cent of men in the 55–69 age bracket receive a pension through the unemployment system.¹⁸⁶

¹⁸³ [Portuguese Social Insurance Agency] Segurança Social website: www.seg-social.pt, retrieved 23 March 2021.

¹⁸⁴ [Portuguese Social Insurance Agency] Segurança Social website: www.seg-social.pt, retrieved 23 March 2021.

¹⁸⁵ ESPN. *Thematic Report on Retirement regimes for workers in arduous or hazardous jobs – Portugal*. 2016. p. 4.

¹⁸⁶ OECD, *OECD Reviews of Pension Systems - Portugal*, 2019. pp. 79–81.

Retirement at the age of 57 years is possible for those who are unemployed at the age of 52 or later and have contributed to the pension system for a minimum of 22 years. The person must then have exhausted the right to unemployment benefits and the unemployment must be involuntary. The pension is reduced by 0.5 per cent for each month in which the pension is taken out before the age of 62.¹⁸⁷

For those who are unemployed at the age of 57 or later, it is possible to retire at 62 years of age without reducing the pension if the person is entitled to an old-age pension, the right to unemployment benefits has been exhausted and the unemployment is still involuntary.¹⁸⁸

The right to unemployment benefits is dependent on age and months with registered income since the last period of unemployment. See table 12.¹⁸⁹

Table 12. The right to unemployment benefits in Portugal

Age	Ordinary period	Extra period per five years in work since unemployment	Max period
<29	150 days	30 days extra	330 days
30–39	180 days	30 days extra	420 days
40–49	210 days	45 days extra	540 days
>50	270	60 days extra	540 days

Source: Social Security Administration, *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Portugal.

The relatively generous options for early retirement when the right to the unemployment benefit has been exhausted may lead to negative incentives. There is the possibility of helping older adults who have had problems with unemployment but also a risk of reducing job search among older adults and employers may be less likely to retain older employees making it more accepted to not retain older employees.¹⁹⁰

¹⁸⁷ OECD, *OECD Reviews of Pension Systems - Portugal*, 2019. pp. 79–81.

¹⁸⁸ OECD, *OECD Reviews of Pension Systems - Portugal*, 2019. pp. 79–81.

¹⁸⁹ Social Security Administration, *Social Security Programs Throughout the World: Europe*. SSA Publication No. 13-11801. 2018. Chapter on Portugal.

¹⁹⁰ OECD, *OECD Reviews of Pension Systems Portugal*, 2019. p. 145.

6.9.5 Pensions in figures

Since 2006, the proportion of people taking early retirement has increased, especially among women. The term early retirement refers only to early retirement through ordinary early retirement, the unemployment system and through having had a long working life. It does not include sickness benefits. In 2006, 9.4 per cent of men and 4.0 per cent of women took early retirement. Ten years later 9.7 per cent of men and 6.3 per cent of women took early retirement. This does not include those who retire through special options for certain occupational groups. The use of early retirement linked to unemployment insurance has decreased among men, but the other types of early retirement have increased among both men and women.¹⁹¹

In 2016, 30,000 people retired early of which half of them did so through the unemployment insurance system. This represents approximately 45 per cent of all new retirees in the general pension system. Portugal has one of the largest transitions from unemployment to retirement in the EU.¹⁹²

Compared to other countries, the pension is more impacted by early retirement in Portugal. One year of early retirement decreases the pension by 36.2 per cent. The reduction is primarily due to the sustainability factor. A comparison with OECD countries shows that the country that lowers pensions the second most is Germany with 12.8 per cent for one year. As it is primarily the sustainability factor that affects the amount of the pension, it is mostly the first year in which the pension decreases. Each additional year in which the pension is started early does not have as much of an effect. For example, the pension is only reduced by 14.8 per cent for each year of early retirement if the person starts drawing the pension three years in advance.¹⁹³

This combined with the low age of 60 years for when the pension can be started, creates incentives to start the old age pension early. Despite the fact that the size of the pension was sharply reduced for early retirement, the proportion who drew the pension early has been increasing since 2006.

¹⁹¹ OECD, *OECD Reviews of Pension Systems Portugal*, 2019. pp. 79–82.

¹⁹² OECD, *OECD Reviews of Pension Systems Portugal*, 2019. pp. 145–147.

¹⁹³ OECD, *OECD Reviews of Pension Systems Portugal*, 2019. pp. 80–81.

6.10 Austria

Austria has a long history of early exit from the labour force and several options for early retirement.

6.10.1 The pension system

In Austria the pension age is different for men and women. Women can retire at age 60, men at age 65. This difference will be adjusted in the future.

The pension is defined benefit and can be drawn at the age of 62 (so-called “corridor pension”), with a deduction of 5.1 per cent for each year in which an individual draws the pension before the age of 65 and the pension income is increased by 4.2 per cent for each year the pension is drawn after the age of 65. In 2003, the proportion deducted from the pension was increased from the previous 3 per cent. This partially explains the decreasing proportion of people retiring early under that regulation. Between 2000 and 2012, the number decreased from 132,000 to 11,000.¹⁹⁴

The state pension is the largest part of the pension. There are occupational pensions but they cover only a very small part of the population.¹⁹⁵

Several reforms have been undertaken since 2000 with the intention of increasing labour force participation among older adults in Austria. The pension age has been raised and the pension calculation period has been extended. Before 2004 the pension was calculated on the best 15 years. The period will be gradually extended up to 40 by 2027.¹⁹⁶ About the same time (in 2005) the so-called corridor pension was introduced making early retirement possible. Furthermore, a regulation was introduced in 2000 for part-time work for older adults who had an option that allowed early retirement (Block model). The idea was that more people could work for longer, but in practice the

¹⁹⁴ [Association of Austrian Social Insurance Organisations] Hauptverband der österreichischen Sozialversicherungsträger. *Handbuch der Österreichischen Sozialversicherung*, 2013.

¹⁹⁵ Schmidhuber L., et al., Retirement determinants in Austria: An ageing society but a hesitant policymaker, in Hofäcker D., Hess M. and König, S. (Eds.), *Delaying retirement - Progress and challenges of active ageing in Europe, the United States and Japan*. Palgrave Macmillan 2016.

¹⁹⁶ [Austrian Federal Chamber of Economy] Wirtschaftskammer Österreich website: www.wko.at, retrieved 26 February 2021.

majority of full-time workers who used this solution went to part-time work and the supply of labour decreased.¹⁹⁷

6.10.2 Long working life

There are special rules for people who have many pensionable years, i.e. for those who have paid contributions to the insurance for many years (Langzeitversichertenrente). There are options for these people to retire early either through the so-called Hackler regulation (Hacklerregelung) or the “corridor pension”. The Hackler regulation and corridor pensions are the most common options for early retirement.¹⁹⁸

The Hackler regulation makes it possible to retire at the age of 63 without the pension being reduced, but there is a requirement for many pensionable years in order to be able to take advantage of this option. Men born in 1954 or later can retire at the age of 63 after 540 pensionable months (45 years). This means that the retiree must have been insured for the full period since the age of 18. Women born in 1959 can retire at the age of 58 after 504 pensionable months (42 years). Both age and insurance months increase gradually for later birth cohorts.

The requirement for the corridor pension is 480 pensionable months (40 years) for retirement after 62 years of age. In contrast to the Hackler regulation, the pension is reduced permanently for each year in which the individual draws a pension before the age of 65 and increases every year until the age of 68. The corridor pension will be relevant for women no earlier than 2028. Until then, normal pension age for women is lower than 62.

Almost everyone is included in the insurance, including those who are self-employed, but there is a lower limit for what is counted as gainful employment (Geringfügigbeschäftigte: for example, less than EUR 461/month in 2020). Those who fall below the limit still have the option of taking a voluntary insurance. In addition, parental

¹⁹⁷ Graf N., Hofer, H. and Winter-Ebner, R. Labour supply effects of a subsidised old-age part-time scheme in Austria. *IZA discussion paper* No.:4239. 2009

¹⁹⁸ [Austrian Federal Ministry of Labour, Social Affairs, Health and Consumer Protection] Bundesministerium für Soziales, Gesundheit, Pflege und Konsumentenschutz website: www.sozialministerium.at, retrieved 26 February 2021.

leave up to 48 months for each child is counted, as well as brief periods of sickness benefit, civil service or unemployment.¹⁹⁹

6.10.3 Specific occupations and work tasks

In Austria, there is an option for retirement at the age of 60 after 540 months of insurance for those in mentally or physically heavy work. This is referred to as "Schwerarbeiterpension", which means a pension for heavy work. These work requirements must be fulfilled for at least 120 months of the last 240 months. There are two criteria for work to be considered heavy work. One relates to the use of energy for the performance of work tasks. There is a long list of occupations that defines what is included as work tasks that require high energy (a minimum of 8,374 kilojoules per day for men and 5,862 kilojoules for women). The list is based on an occupational medicine database of 170 international studies on work energy.²⁰⁰ Another criterion relates to the burden on the cardiovascular system or on muscles and bones.²⁰¹

There is also a special rule for the combination of heavy work and the Hackler regulation. In practice, it is only used by women as the same requirements as for *Schwerarbeiterpension* apply to men. For women, the special rule requires 480 pensionable months and the same number of months of heavy work as what is required for *Schwerarbeiterpension*. The difference is that women can take advantage of it at the age of 55.²⁰²

The employer must report if employees carry out heavy work that meets the criteria for "Schwerarbeit".

Ever since this pension was introduced it has been subject to criticism. The criticism is that such a system is impossible to fund, impossible to understand and that it is not constitutional.²⁰³

¹⁹⁹ [Austrian Federal Ministry of Digitization] Bundesministerium für Digitization und Wirtschaftsstandort website: www.oesterreich.gv.at, retrieved 26 February 2021.

²⁰⁰ Spitzer S., Hettinger, T. and Kaminsky, G., *Tafeln für den Energieumsatz bei körperlicher Arbeit*. Beuth Verlag, 1982.

²⁰¹ Panhölzl W., *Vollziehungsprobleme bei der Schwerarbeit*. DRdA 2/2009. 2009.

²⁰² [Austrian Federal Ministry of Labour, Social Affairs, Health and Consumer Protection] Bundesministerium für Soziales, Gesundheit, Pflege und Konsumentenschutz website: www.sozialministerium.at, retrieved 26 February 2021.

²⁰³ Panhölzl W., *Vollziehungsprobleme bei der Schwerarbeit*. DRdA 2/2009. 2009.

6.10.4 Reduced work ability

Austria has a pension for those who are sick with reduced work ability (Disability annuity). Although it is already available earlier in life, there are special rules for people over the age of 50 and people over the age of 60. In general, the pension is available when the ability to work is reduced to less than half of the work ability of a healthy person with similar education, knowledge and skills. Other options for vocational rehabilitation must be exhausted first.

People over the age of 50 (Härtefallregelung) may be included under a special regulation. If an individual is (a) at least 50 years of age; and (b) has been unemployed for 12 months; and (c) can only do the work at the lowest requirements (Geringstes Anforderungsprofil) and it is not possible to obtain such work within one year with regard to state of health and distance from home. The individual is also required to have (d) 360 insurance months with a minimum of 240 earning months.

Those over the age of 60 may be included in another special regulation if they are unable to carry out the work they had for 120 months within the last 180 months due to their state of health. Reasonable adjustments to the work must be considered.²⁰⁴

The pension amount for the disability pension is calculated in the same way as for the option of early retirement. Every month for which the disability pension is drawn before the state pension age, will reduce the amount by 0.35 per cent up to a ceiling of 13.8 per cent. If an individual has 540 pensionable months (45 years), the full pension is paid without reduction, irrespective of age.²⁰⁵

6.10.5 Unemployed older adults

The period with an allowance from the unemployment insurance is extended when an individual is older than 40 years of age (from 20 weeks to 39 weeks) and even more when an individual is 50 years of age and older (52 weeks).

²⁰⁴ [Austrian Federal Ministry of Digitization] Bundesministerium für Digitization und Wirtschaftsstandort website: www.oesterreich.gv.at, retrieved 26 February 2021.

²⁰⁵ [Austrian Pensions Agency] Pensionsversicherungsanstalt website: www.pv.at, retrieved 10 June 2021.

It is therefore possible to stop working one year and one month before an individual draws a pension in the event of unemployment.

6.10.6 Part-time solutions for older adults

There are several options for reducing working hours ahead of retirement. In order to be eligible to take advantage of a part-time option, an individual is required to have been insured in Austria for 15 of the last 25 years.

In Austria it is possible to reduce working hours after a certain age without having to draw a pension and without losing much from a financial perspective. Five years before the pension age (i.e. at the age of 60 for men) it is possible to downsize with 40 to 60 per cent. Half of the salary the retiree will lose due to this is reimbursed by the employer and it does not affect the employer contribution to the social insurance that is paid the same as before the reduction. Consequently, this model does not affect the pension in negative way. The pension is calculated on income before the downsizing.²⁰⁶

Furthermore, in Austria (and Germany) early retirement is also possible with the so-called block model, which is a variant of part-time work on the basis of age. Under that model, an individual works half the equivalent of a full-time job – one half of the period working full-time and the other half not working at all. In the first half, the individual also needs to take all holiday time from all years. In Austria, the leisure portion can be a maximum of 2.5 years. The block model means that an individual can stop work earlier without drawing a pension.

The majority of those in Austria took advantage of the option to reduce working hours. An evaluation concludes that phased retirement for older adults contributes to a reduction in the supply of labour.²⁰⁷ There is a trend towards fewer people taking advantage of the option for phased retirement after the eligibility requirements were changed.²⁰⁸

²⁰⁶ [Arbeitskammern] Kammer für Arbeiter und Angestellte website: www.arbeiterkammer.at, retrieved 21 May 2021.

²⁰⁷ Graf N., Hofer, H. and Winter-Ebner, R., Labour supply effects of a subsidised old-age part-time scheme in Austria. *IZA discussion paper* No.:4239. 2009.

²⁰⁸ Buchebner-Ferstl S., et al., *Teilzeit. Eine Studie zu betrieblichen Effekten von Teilzeitbeschäftigung*. Research report Austrian Institute of family studies, 2011;6.

In 2019, there were 44,115 people in phased retirement of which 12,037 were using the block model.²⁰⁹ That is a significant proportion of the labour force, even though the number of people using the block model to take an earlier retirement is less than the number using the corridor pension or the Hackler regulation. There were 837 people who took a special form of pension known as a partial retirement (*Teilpension*), which goes to those who meet the requirements for the corridor pension, i.e. they have had a minimum of 40 pensionable years. In this special cases, the employers receive 100 per cent of the additional costs for the wage and salary compensation and for contributions to the social insurance from the public employment service. *Teilpension* is therefore a cheaper option for employers than the other part-time models. Under the block model, employers only get 50 per cent of the additional costs reimbursed from the public employment service. For the continuous phased retirement model, employers get 90 per cent back.²¹⁰ The purpose of *Teilpension* is to increase the actual age of retirement.²¹¹ People who instead choose to retire through the corridor pension have long-term reductions in the pension. As a result, it is better from a financial perspective for an individual to take advantage of *Teilpension*. *Teilpension* requires an agreement between employer and employee.

6.10.7 Ongoing debate

The pension system in Austria has been subject to criticism for not being financially sustainable in the long-term.²¹²

The Hackler regulation will be replaced with the so-called “Frühstarter bonus”, which is a bonus for those who started working at a young age. An argument for replacing an option for early retirement without a lower pension is that it will promote better

²⁰⁹ [Austrian Federal Ministry of Labour, Social Affairs, Health and Consumer Protection] Bundesministeriums für Arbeit, Soziales, Gesundheit und Konsumentenschutz website: arbeitsmarktdatenbank.at, retrieved 26 February 2021.

²¹⁰ [Austrian Public Employment Service] Arbeitsmarktservice, website: www.ams.at, retrieved 26 February 2021.

²¹¹ [Austrian Chamber of Labour] Kammer für Arbeiter und Angestellte website: www.arbeiterkammer.at, retrieved 21 May 2021.

²¹² Hülsewig A. and Hülsewig O., *Das österreichische Rentensystem im Blickpunkt: Rentenparadies oder eine Belastung für zukünftige Generationen?* ifo Schnelldienst 2017;70/07:31-39.

equality between men and women.²¹³ The debate is characterised by the voices of both criticism and support.

Frühstarterbonus is to be available to everyone who has started working before 20 years of age. Each month in which an individual has worked before turning 20 years of age gives an increase in the pension of one euro up to a maximum of EUR 60 per month. This can be up to EUR 840 a year (with the inclusion of the thirteenth and fourteenth monthly salaries which exist in Austria). The requirement for an individual is to have a minimum of 25 pensionable years before retirement and a minimum of 12 months before turning 20.

6.10.8 Pensions in figures

Statistics from 2019 on newly granted pensions indicate among other things, that there is a clear gender difference in pension income for all types of pension. On average women receive lower pensions.

The figures also indicate that people with a disability pension receive much lower amounts than old-age pensioners. The difference is around EUR 350 per month. Men receive the highest pensions, either through a Hackler pension or a *Schwerarbeiterpension*. It is interesting to see that the average old-age pension is just as high for men with a corridor pension. The corridor pension is going to remain in the future and appears to be an option to retire early without the pension becoming too low.

²¹³ [Parliament of the Republic of Austria] Republik Österreich Parlamentsdirektion website: www.parlament.gv.at, retrieved 26 February 2021.

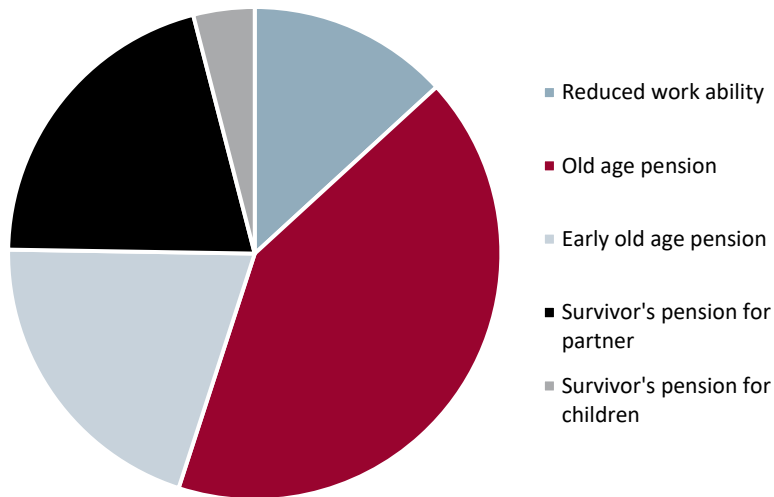
Table 13. Number of people with different types of pension and average amounts, Austria

	<i>number</i>	<i>EURO/month</i>
Disability pension		
All	17,248	1,162
Men	10,842	1,289
Women	6,406	947
Old-age pension		
All	83,760	1,514
Men	35,469	1,928
Women	48,291	1,259
Hackler regulation (especially for men)	495	2,432
Hackler regulation		
All	9,263	2,300
Men	7,278	2,428
Women	1,985	1,837
Schwerarbeiterpension		
All	3,317	1,668
Men	708	2,426
Women	2,609	1,462
Schwerarbeiterpension (especially for men)	5,683	2,181
Corridor pension (especially for men)	9,140	1,919

Source: [Austrian Social Insurance] Österreichische Sozialversicherung website: <https://www.sozialversicherung.at>, retrieved 26 February 2021.

According to statistics from 2019, old-age pensions represent 42 per cent of all newly granted pensions. Early retirement pension represents 20 per cent, 13 per cent of pensions are due to reduced work ability while 25 per cent are survivors' pensions.

Figure 2. Newly granted pensions in Austria (2019)



Source: [Austrian Social Insurance] Österreichische Sozialversicherung website: <https://www.sozialversicherung.at>, retrieved 26 February 2021.

7 What can we learn from the early retirement policies in different countries?

In this chapter, we analyse five options for early retirement that are available in other countries. We discuss the advantages and disadvantages of the different options and analyse them in relation to the Swedish system. We also discuss the driving forces to which different options for early retirement may give rise, as well as the accuracy of each option.

The report is based on the following five options for early retirement that were reported in Chapters 5 and 6:

- Early retirement options for people with many years of work or who started working life early
- The option of early retirement for individuals in certain occupations or with certain work tasks
- The option of early retirement or downsizing through part-time solutions and partial retirement solutions for older adults
- The option of early retirement for older adults with reduced work ability through health insurance or early retirement
- The option of early retirement for older unemployed adults or extended unemployment benefits for older adults.

It may also be possible to leave working life early with some sort of benefit if a combination of requirements is fulfilled. A detailed review of policies in these areas is available in Chapters 5 and 6.

One conclusion that we draw is that there is no policy that makes early retirement possible that doesn't come with its own problems. The different options all have both advantages and disadvantages. The options are either a more or less suitable fit for the Swedish

pension system and are more or less inclusive in terms of the group highlighted by the Government in the commission to ISF, i.e. those with many years of working life and groups with arduous work and lower income. As a result, none of the measures for early retirement that we describe in the report can be copied into the Swedish pension system without problems. If any of the measures or benefits were to be introduced into the Swedish pension system, a combination of the measures that we have identified may potentially reduce the disadvantages. The benefit design itself is then important for ensuring that the right group of people is included and for reducing negative driving forces in order to achieve the goal of an extended working life.

It also seems to be the case that different options for early retirement can serve as substitutes for each other. In countries that have several measures or benefits for early retirement, the use of one benefit usually decreases with an increase in the use of another benefit. Therefore, the introduction of a solution for early retirement to Sweden can have effects on the use of other social insurance benefits. We have not been able to investigate this issue in this report but previous research indicates that such a substitution mechanism exists.²¹⁴

7.1 The option of early retirement for people with a working history of many years or those who started working life early

In some countries, it is possible for those who have worked for many years to receive an early pension – usually for those who have worked from adolescence (16–19 years) until they retire. Even if they were to retire at a younger age than others, they may have worked as many years as those who have retired at an older age but who started working at a later age after a longer education. The arguments around

²¹⁴ Riekhoff A.-J., Kuitto, K. and Palomäki, K., Substitution and spill-overs between early exit pathways in times of extending working lives in Europe. *International Social Security Review* 2020;73:27–50.
ISF, Striktare sjukförsäkring och tidig ålderspensionering (Stricter health insurance and early retirement.) Report 2014:7.

this form of early retirement are based on the notion that the pension system should treat fairly those who start working early.

There are different solutions for making early retirement possible for those with a working history of many years. Sometimes it involves only the option to retire early, other times it concerns being able to retire early without the pension decreasing (for example, Spain and France). There are also special solutions available in which each working year above a certain number reduces the reduction to the pension in the event of early retirement (for example in Portugal). The design is different from country to country. Some countries include the full working life (for example, Denmark and Belgium) while other countries apply special rules for those who started working during adolescence, irrespective of how many years they have worked in total (for example, Italy and Austria).

7.1.1 Driving forces, inclusiveness and challenges

Special regulations for those who started working early would not lead to the majority of the population being able to retire earlier and would not hinder the goal of an extended working life. The main problem is probably that only a few people would be covered by such a regulation and the extra benefits are not high enough for them to be able to retire earlier with a reasonable pension. One problem encountered when a country is to introduce a lower retirement age for those who have already started working as adolescents is that few currently start working full-time and full year so early. Those who have worked during summer holidays while at secondary school may not be covered by such a pension system. Summer jobs are quite common in Sweden, which in some cases are pensionable. Anyone who earns more than 42.3 per cent of the current price base amount then pays contributions into the general pension.²¹⁵ It is an open question whether income from summer jobs should be included in determining a long working life and subsequently what weight it should then have. If the goal is to concentrate support on those who start already gainful employment as their primary activity during adolescence, there needs to be a requirement for income for a number of months during the year and to a certain extent per month. The

²¹⁵ Pensionsmyndigheten (The Swedish Pensions Agency), *Sommarjobbare och pension (Summer workers and pensions)*. 2020.

trend towards more and more young people studying at upper secondary school level instead of working means that gradually there will be fewer people who will be entitled to an early pension of the type we are describing here. The number of people gainfully employed in Sweden between the ages of 16 and 19 years, who worked more than 20 hours per week was halved between 1976 and 2004.²¹⁶

One complication is that at the upper secondary school level there are certain types of education that provide income during the education period – apprenticeships. Other vocational education at the same level includes internships, but does not provide any earned income. This can be perceived as unfair by those who have these other forms of vocational education.

Another complication is that many of those who live in Sweden have come to the country as adults. This raises the question as to whether they should be covered by such a reform and whether years of work during adolescence in the country from which they came should be included. In this case, how should information on that be collected and verified? Those who come as unaccompanied children during adolescence often need to attend school for more years because they also need to learn Swedish (language introduction in secondary school and SFI, Swedish for Immigrants Programme, for adults). They often have no earned income during adolescence. Other international migration can also be problematic when calculating the full working life. For example, it will be more difficult to calculate the number of working years for those who work outside Sweden for a few years.

7.1.2 The definition of what is to be counted as a working year

It is also difficult to define what is to be counted as a working year. Currently, people born in Sweden who started drawing an income pension with an average of 42.1 years with an income-based

²¹⁶ Statistics Sweden, I arbete (AKU), 100-tal efter kön, ålder, veckoarbetstid och månad 2021 (At work (Labour Force Surveys), 100s by gender, age, weekly working hours (actual) and month. 2021).

pension.²¹⁷ This then also includes years with pensionable amounts for example, for child rearing years and studies. However, it may be the case that a person met the requirements for an income-based pension for only one month and it is unclear for how many years the person then had a 12-month income-based pension. The average age for entry into the labour force is 22.6 years, while the age of entry to paid work is 26.4 years. Paid work in this case is defined as income from gainful employment of at least two income base amounts (SEK 133,600 in 2020). The average is therefore only 38.6 years of paid work up to the age of 65.

The Swedish Pensions Agency has reported different measures for the number of years with regard to gender differences. The “pension-qualifying year” is the measure with the least gender-based differences. The report shows that although women have fewer qualifying years than men, the difference has decreased sharply over time and is currently 1.5 years.²¹⁸ Therefore, the most equitable approach would be to use the number of qualifying years as a measure for the number of years of work.

7.1.3 Many years lead to higher pensions

In some countries, the right to early retirement that is linked to a certain number of years provides a pension level that is not negatively affected by the person taking an earlier retirement. This option is available mostly in countries that have a defined benefit system and use a formula that involves percentage reductions in the pension income. There is one such example in Germany, where people with 45 pensionable years can retire at the age of 63 without being subject to the usual pension reductions. One study shows that this option makes it possible for a person to retire 5.4 months earlier than a person who does not meet the requirement for 45 pensionable years and who receives a reduced pension in the event of early retirement.²¹⁹

²¹⁷ Pensionsmyndigheten (The Swedish Pensions Agency) *Pensionsåldrar och arbetslivets längd (Retirement ages and length of working life)*, 2021.

²¹⁸ Pensionsmyndigheten (The Swedish Pensions Agency), *Pensionsåldrar och arbetslivets längd (Retirement ages and length of working life)*, 2021.

²¹⁹ Dolls M. and Krolage, C., *The Effects of Early Retirement Incentives on Retirement Decisions*. ifo Working Paper 2019; 291: 01-31.

Some occupational pension agreements in Sweden are defined benefit and use the same principle. Under these agreements, there may be rules that mean that individuals with many years of work would be less affected by the reductions in the defined benefit occupational pension. Depending on the agreement, the reduction varies between 0.3 and 0.68 per cent for each month in which the person draws the pension earlier.²²⁰

Different countries have different options for increasing pensions to make it possible for some people with a long working life to retire early without too much of a reduction in the pension. For example, in Austria there is a proposal for a bonus for those who worked as adolescents. But according to the Social Insurance Committee in Sweden, there should be a permanent solution in Sweden that follows both the principle of a contribution funded system and the life income principle.²²¹

Instead of a fixed supplement, it is also possible to multiply pension contributions made before the age of 20 by a specific number. Under the Italian model, contributions made before the age of 18 are multiplied by 1.5 for cohorts that receive their entire pension from the defined contribution scheme. The advantage with this would be that it is not just a matter of new supplementary layer in the pension system but rather that the pension system itself contains this redistribution element.

In Sweden, the amount that a person receives in retirement is related to the age of retirement and the annuity divisor used to estimate life expectancy (*delningstal*). Therefore, it has no direct connection to the number of years in work. In a motion presented to Parliament, Vänsterpartiet proposes to revise this annuity divisor.²²² There is a special regulation in Italy under which those who meet certain requirements (including that they worked during adolescence) and who exit the labour market before the age of 57 will have the pension calculated using the annuity divisor for 57-year-olds. Portugal also has a solution in which a similar type of annuity divisor is used for

²²⁰ Pensionsmyndigheten (The Swedish Pensions Agency), Förmånsbestämda tjänstepensioner – Hur påverkas tjänstepensionen av att sluta arbeta eller gå ned i arbetstid innan 65 år ålder? (Defined benefit occupational pensions - How is the occupational pension affected by stopping work or reducing working hours before the age of 65?) Reg. no. 2019-434, 2020.

²²¹ Bet. 2020/21: Sfu16, Socialförsäkringsutskottets betänkande, Pensioner. (Pensions).

²²² Swedish Parliament website: data.riksdagen.se, retrieved 11 June 2021.

certain types of early retirement. For example, it is used for self-selected early retirement but not for a long working life or early retirement in the event of involuntary unemployment. Deviating from the age-specific annuity divisor can lead to risks for the financing of the pension system. The deviation depends on how many would be covered by a potential special regulation and its requirements.

7.1.4 A comparison of focusing on the period of adolescence with focusing on the entire working life

It may be beneficial from a gender perspective to use a bonus for work during adolescence (or more generally for people who started working early) rather than a bonus for a reference period that covers the entire working life.

Women usually have a lower attachment to the labour market for a few years and lower incomes due to part-time work as a result of having taken a greater responsibility for childcare. Therefore, the risk is higher that women will not meet the requirements for a certain number of years above a specific income limit. We can therefore state that different measures of the requirement for a long working life can result in differences in outcomes for men and women. There are also more girls than boys who go on to upper secondary education. A benefit that only considers work in adolescence can therefore also disadvantage women.

A bonus for people who started working early can be beneficial in terms of administration of the system. This is because work in other countries for a period later in life does not need to be recalculated. Such a bonus would give people with a long working life with low incomes, a slightly higher pension and therefore better financial options for early retirement. Another advantage is related to that people who started working early do not have any qualifying years in the occupational pension under certain occupational pension agreements. They are therefore disadvantaged in the current system. If this is not changed in the future, a bonus may be of particular importance to those who started working early and who otherwise would not be able to afford to retire early.

7.2 The option of early retirement for individuals in certain occupations or with certain work tasks

A solution with lower pension ages for those who work in some occupations means that those who have worked for a certain minimum number of years in the occupation, receive a pension at an earlier age than what applies to others.

It is common for legislation or agreements to give those who work in certain professions a lower pension age than others. There may be several reasons for this:

- that these are particularly strenuous occupations
- that older adults cannot perform at the top level of the occupation
- that having older adults working in the occupation may involve risks to others.

The lower pension age can vary between occupations. Those employed in these occupations must have worked in the occupation for a certain period of time in order to receive a pension when they stop working at an age that is lower than the normal pension age.

The most common justification for this solution is that it concerns particularly strenuous occupation. But there are other justifications as that older adults cannot perform at the top level of the occupation. For example, in Norway the groups for which performance deteriorates with age includes those who are ballet dancers and those who are opera singers. This can also apply to those employed in the military. When Sweden introduced the first occupational pensions as early as the 18th century, it was precisely for officers based on the justification that it was difficult for older adults to perform at a high level in the army. In terms of risks for others, reference can be made to pilots, as well as train or tram drivers in some countries.

The occupations that are considered to be particularly strenuous differ significantly between countries. An occupation that has a low pension age in one country may not necessarily have it in another country. There are also large differences in how many occupations are covered. Such rules currently only exist for a few occupations in

Sweden. By contrast, in Austria, France and Norway large numbers of occupations are covered by this type of rule for a lower pension age.

In Finland and Austria, there are several other requirements than strenuous work that must be met in order to be granted an earlier retirement. The Austrian model requires a certain number of pensionable years and there is a list of occupational categories that meet the requirements to be considered as “heavy work” (Schwerarbeit). In Finland each case is assessed on an individual basis whether a year is counted as a year with heavy work. The solution in Finland with an individual assessment can be expected to require a lot of administrative work. Under the Austrian model, the system is structured so that the employer has a duty to notify “Schwerarbeit” during the employment period. Consequently, that model can be assumed to require less work at the time of the pension decision. At the same time, a complete system is required for ongoing assessment of the work, a system that is similar to that of France.

In both Austria and Finland, the benefit is intended to enable people in certain occupations to retire earlier (at 63 in Finland and at 60 in Austria) under a defined benefit scheme. In Sweden, the option to retire at the age of 62 is available to everyone, but the pension will then be low. The solutions available in Austria and Finland therefore do not offer a solution that can be used for these groups in Sweden. One possible solution might be for those who meet the requirements for many years of heavy work – in whatever way it is defined and tested – to receive a supplement that increases their pensions. Alternatively, there may be collective agreement solutions that provide higher provisions for pensions for certain occupational groups.

Countries like Greece have a higher employer contribution and a higher pension contribution (tax) for certain occupations in order to fund a higher level of pension and earlier retirement. It would be possible to create similar solutions in Sweden under which certain occupations have to pay a higher pension contribution in order to receive a higher pension. Such a solution could serve as compensation for a shorter working life and an earlier retirement.

Another option could be that those who meet the requirements for a long working life in heavy work and who will receive a guaranteed

pension, have the option of drawing the guarantee pension earlier than what others can do. The current proposal for an exception for increased age limits in the pension system, suggests that only those with a very long working life (i.e. 44 years with a minimum two income base amounts) will have the option of drawing a guarantee pension (garantipension) at the age of 65. This exception could be extended to those in strenuous work who have had heavy jobs for a longer period, such as in the model in Austria and Finland (in Austria 10 years in the last 20 years and with 45 years of insurance; in Finland 38 years). This option would then only exist for those employed in strenuous work who end up at the level of a guarantee pension.

The problems with the assessment and documentation of heavy work remain. The Finnish years-of-service pension model still covers very few people, which may indicate that the benefit imposes requirements that are too high. On the other hand, the Austrian model has been subject to criticism for being both expensive and unpredictable.

7.2.1 Disadvantages and negative driving forces with a special regulation for certain occupations

There are both advantages and disadvantages to the special regulation systems for certain occupations that we present here. The primary advantage is that it can be made easier for those who are exhausted to exit the labour market earlier and to enable early exit for preventive purposes for different occupational groups before they become exhausted and potentially entitled to disability pensions.

There are also disadvantages that mean that in several countries there is a tendency to move away from this type of special regulation for different occupations. We review and discuss some of these disadvantages.

First of all, such a special rule can mean that there is not as much pressure on employers to improve the working environment in the occupation as there otherwise would have been.

Secondly, it could mean that people choose to stay in the occupation even if they could go into another occupation, if they know that they could receive an early pension within a few years that they could not

get if they left the occupation. It can reduce mobility in the labour market.

Thirdly, it can be difficult to change rules in the direction of a higher pension age for an occupation, even if the occupation could have changed its character in order to become less strenuous. In such a case, those employed in the occupation would lose a right that may have been a contributing factor to their choice to work and continuing to work in the occupation.

Fourthly, it is more difficult to determine whether it is arduous work in the psychosocial work environment than is in the physical work environment.

Fifthly, different people can experience one and the same occupation as arduous in different ways. This may mean that some people do not have the option of early retirement when they need it and others may have it even if they do not need it, depending on how the occupations are classified.

7.2.2 Advantages with a special regulation for certain occupations

The option of facilitating early retirement for people with many years of heavy work would reach a limited group. This option would therefore not lead to the majority being given the option for early retirement. A design such as that of Austria and Finland requires many years of work in order for this option to not counteract the goal of a long working life.

Stopping work earlier can be positive for the health of those employed in strenuous work. Previous research indicates that there is a link between late retirement and poorer health for those who are low-skilled with lower levels of education.²²³ Another study indicates a link between low-skilled, heavy work and a lower life expectancy.²²⁴ Certain occupational groups have a lower life

²²³ König S., Lindwall, M. and Johansson, B., Involuntary and Delayed Retirement as a Possible Health Risk for Lower Educated Retirees. *Journal of Population Ageing*, 2019;12:475–489.

²²⁴ Böheim R., *Einfluss von Erwerbslaufbahn und Nachtschwerarbeit auf die Lebenserwartung. Sterberisiko der Männer der Kohorten 1924 bis 1949 in Österreich*. WIFO report, 2008 and Grossman, V., Schünemann, J. and Strulik, H., Fair Pension Policies with Occupation-Specific Aging, CESifo Working Papers 9180, July 2021.

expectancy of up to 3.5 years. Some can be related to poorer health among these groups, but there is still a difference when they are compared to others who had equally good health during working life.²²⁵ One way in which to address this could be to also offer occupation-specific special regulations in addition to some form of disability pension. A framework that makes it easier for certain occupational groups to retire early would contribute to equalise the time in retirement for these groups and the rest of the population.

7.3 The option of part-time retirement solutions for older adults

Another solution is partial retirement. There are problems present with this type of solution. A lot of research indicates that part-time work for older adults does not increase the total supply of labour. Although it may lead to people to continue to work, the reduced working hours counteract the total supply.²²⁶ Subsidised part-time solutions have often been subject to criticism for being too expensive, while non-subsidised solutions are often financially unattractive to the employer or the employee.

It is our opinion that it is nevertheless worth considering part-time solutions. For example, there is research that suggests that part-time solutions can prolong working life for people with poor health.²²⁷ There is also research indicating that part-time solutions can reduce the differences in pension income.²²⁸ Furthermore, there is research

²²⁵ Deeg D., De Tavernier, W. and de Breij, S., Occupation-Based Life Expectancy: Actuarial Fairness in Determining Statutory Retirement Age, *Frontiers of Sociology*, 2021;6:161.

²²⁶ Pensionsmyndigheten (The Swedish Pensions Agency), *Flexible pension and partial retirement*, 2017.
Börsch-Supan A et al., Dangerous flexibility - retirement reforms reconsidered, *Economic Policy*, 2018;33 (94):315–355.

Wanger S., Altersteilzeit: Beliebt, aber nicht zukunftsgerecht. *IAB Kurzbericht* 2009;9.
Berg P et al., Can Policy Facilitate Partial Retirement? Evidence from Germany, *NBER working paper series*, No. 21478. 2015.

²²⁷ Elsayed A. et al..., Gradual retirement, financial incentives, and labour supply of older workers: Evidence from a stated preference analysis, *Journal of Economic Behavior & Organization*, 2018; 150: 277–294.

²²⁸ Tolan S., The Effect of Partial Retirement on Labor Supply, Public Balances and the Income Distribution, *DIW discussion paper* No. 1676. 2017

that indicates that the particular design of the option for part-time can impact which effect it has on the supply of labour.²²⁹

7.3.1 The impact on the supply of labour

Setting the age at which a person can go down to part-time as the same as for the age for early old age pension, can have a positive impact on the total supply of labour.²³⁰ In Sweden, this would mean that an individual could go down to part-time from the age of 62 or the earliest age at which it is possible to draw an old-age pension in the future. The minimum age for the public pension increases with the so called "riktålder" and is to be three years before this age. This means that the option of part-time work could be given three years before the "riktålder", which is equivalent to the temporary Italian model.

Developments in Sweden indicate that the level of compensation can have an impact on how many people will take advantage of a part-time programme. When the level of compensation on the loss of income was reduced from 65 per cent to 50 per cent, the number of people who took advantage of the option reduced drastically. At 65 per cent, there were approximately twice as many who took advantage of the part-time programme than those who did at 50 per cent. When the level of the compensation later increased, participation also increased almost as much again.²³¹ This indicates that it is possible to influence the number of people who take advantage of the programme by changing the level of compensation. It can also mean that part-time becomes less attractive to those with low incomes who need a high compensation. A higher degree of compensation may therefore be necessary to enable part-time work for these groups. A higher level of compensation also comes with higher costs. It is our opinion that it may therefore be important to consider to link the possibility of subsidised part-time work to certain requirements that must be met, such as many years in working life or several years in strenuous occupations.

²²⁹ Haan P. and Tolan S., Labor supply and fiscal effects of partial retirement - The role of entry age and the timing of pension benefits, *The Journal of the Economics of Ageing*, 2019;14.

²³⁰ Haan P. and Tolan S., Labor supply and fiscal effects of partial retirement - The role of entry age and the timing of pension benefits, *The Journal of the Economics of Ageing*, 2019;14.

²³¹ Wadensjö E., Part-Time Pensions and Part-Time Work in Sweden, *IZA Discussion Paper* No. 2273, 2006.

The particular design can influence labour force participation in different ways. Two studies have evaluated the so-called block model that exists in Germany and Austria.²³² Both studies criticise the block model for not contributing to more people working. One study of the German model indicates that the block model reduces the time spent working for women and reduces the positive impact of phased retirement on time spent working for men.²³³ This means that a design such as that of the block model has a negative impact on the total supply of labour. It is also important to consider the fact that part-time solutions in Austria and in particular in Germany, already enable early retirement and part-time work a few years before the pension age. It can therefore also be so that the low age limit of the block model has a negative impact. The design can also affect whether or not part-time solutions are financially attractive to the employer and the employee.

7.3.2 Part-time solutions from the perspective of employees

Those who want to stop working at the age of 62 but who cannot afford to do so, could have the option of going down to part-time work and get half (or a certain proportion) of the reduced working hours reimbursed. This means those on low incomes then need to draw part of the pension to compensate for the reduced salary for part-time work. This also leads to lower pensions in the future.

A model similar to the Austrian Teilpension could counteract the negative impact on the pension. It could also be beneficial for the employee as the tax on pensions before the age of 65 is higher than on earned income.²³⁴ There is only small differences, but they may still be important for low-income earners.

The Austrian Teilpension model links the option of part-time work to a certain number of working years, which would also be possible to

²³² Wanger S., Altersteilzeit: Beliebt, aber nicht zukunftsgerecht. *IAB Kurzbericht* 2009;9. Berg P., et al., Can Policy Facilitate Partial Retirement? Evidence from Germany, *NBER working paper series*, No. ;21478. 2015

²³³ Berg P., et al., Can Policy Facilitate Partial Retirement? Evidence from Germany, *NBER working paper series*, No. 21478. 2015.

²³⁴ Pensionsmyndigheten (The Swedish Pensions Agency), Pension och skatt 2021. Skatteavdrag för pension och lön vid olika åldrar (*Pensions and tax 2021. Tax deductions for pension and salary at different ages*). 2021.

do in Sweden. It would reduce the number of people who can take advantage of the option and simultaneously, not prevent a long working life for people with weak attachment to the labour market and reducing their labour force participation even more through the option of part-time work. The temporary Italian model reduced the costs due to part-time work, as the pension provisions are paid by the state as for a full-time job. Only few people in Italy took advantage of this option.

7.3.3 Part-time solutions from the perspective of employers

It is our opinion that there is a risk that part-time solutions will be underused or that few would take advantage of them. Both the Austrian Teilpension and the temporary Italian model have very low participation rates. There may be several reasons for this. Part-time solutions place requirements on employers to make flexible part-time work possible, which may be considered as unfavourable by the employers.²³⁵ Therefore, a design such as the Austrian Teilpension can compensate employers for the increased costs and make it more attractive for them to offer part-time options. There are several options for part-time work for older adults in Austria. This may be the reason why the proportion is very small that use Teilpension instead of other part-time options that do not require as many years in the labour market.

It is our opinion that it may still be possible to introduce a part-time solution in Sweden that does not have a particularly negative impact on pensions, even if it does not reach many people. In order to reach more people than Teilpension in Austria, it is possible to reduce the requirements in terms of the number of years in the labour market by a few years or to also allow people with a certain number of years in strenuous occupations to take advantage of the programme without having to have worked as many years. The temporary Italian model indicates that if the employer opposes it, there may be few people who would take advantage of the option because it then becomes financially disadvantageous for them. Therefore, a design similar to

²³⁵ Belloni M., Partial retirement in Italy. Work and Pension, in J. Mészáros (Ed.), *Phased and Partial Retirement* Hungarian State Treasury, 2019.

the Austrian Teilpension may be better for employers while simultaneously making it easier for people to participate.

It was possible for employers in Germany to receive compensation for the additional costs of phased retirement (geförderte Altersteilzeitarbeit) from the federal employment agency until 2010. One prerequisite was that employers must employ a person who was either unemployed or a fully trained apprentice instead of the person who reduced their working hours.²³⁶ Such a design may present an opportunity to make phased retirement a more attractive option for employers and less costly for society or the employment agencies.

Subsidised part-time work has been abolished in several countries. Consequences of subsidised part-time work for employees are usually positive, as their future pension is not impacted in a particularly negative way. The subsidised part-time solution that existed in Sweden until 2001 did not have a negative impact on the defined benefit pension.²³⁷ But given the defined contribution pension system that is currently in place, such a solution is not as beneficial for the individual. Subsidised part-time work is also more advantageous for employers, which may lead to employers being more inclined to grant part-time work for older employees within such a system. Nevertheless, subsidised part-time work has been subject to criticism for being too expensive. Here too, the design can therefore be important, for example by specifying a high minimum age for part-time work and strict rules regarding who is to be covered by the option.

7.3.4 Structure with a focus on accuracy

In several countries, options for part-time work are regulated through collective agreements and older adults have seldom the right to part-time work. This can be problematic from the perspective of equality. For example, one study from Germany shows that people with physically strenuous occupations are underrepresented in phased retirement and that this may be related to the fact that there are no collective agreements that allow for part-time work. The study also

²³⁶ [German Federal Labour Office] Bundesagentur für Arbeit website: www.arbeitsagentur.de, retrieved 11 June 2021.

²³⁷ Wadensjö E., Part-Time Pensions and Part-Time Work in Sweden, *IZA Discussion Paper* No. 2273, 2006.

highlights the connection between the subsidy from the federal employment agency and regulated option for part-time work through collective agreements. One conclusion is that it is uncertain whether the collective agreements will enable part-time work without subsidies.²³⁸

If part-time solutions for older adults in Sweden are to be regulated by collective agreements, it is important that people employed in hard work are covered by the agreements. France is of interest in the discussion around some form of working time account that is targeted specifically at people employed in strenuous work. Here, it is possible to collect points in stressful occupations, which can be used later for early retirement or to downsize the working hours.

In a report the Swedish Pensions Agency also states that the defined contribution flexpensions will only become more important for part-time work after 20–30 years. These flexpensions are included in the agreements for those who are privately employed.²³⁹ It can take a long time before people benefit from such a system.

There may be other disadvantages to regulating part-time solutions through collective agreements. According to a report from the Swedish Pensions Agency, people who are covered by a defined benefit occupational pension should be careful with part-time work before the age of 65. Part-time work can have a negative impact on the pension, especially for people with high incomes.²⁴⁰

One international study has investigated the options for phased retirement. The results indicate that such options primarily exist in certain industries such as healthcare and education. More than 50 per cent of employees have been offered such an option in these industries. On the contrary, it was very unusual in the construction, mining and manufacturing industries. According to the study, part-time solutions run the risk of excluding some industries. The study also found an association between the size of the organisation and the

²³⁸ Brussig M., Knuth, M. and Wojtkowski, S., *Altrsteilzeit: Zunehmend Beschäftigungsbrücke zum späteren Renteneintritt, Altersübergangs-Report 009-02.*

²³⁹ Pensionsmyndigheten (The Swedish Pensions Agency), *Flexpension och delpension – En översikt inom de fyra stora avtalsområdena (Flexible pensions and partial retirement - An overview of the four major occupational areas.)* Reg. no. 2017-247, 2017.

²⁴⁰ Pensionsmyndigheten (The Swedish Pensions Agency), *Förmånsbestämda tjänstepensioner – Hur påverkas tjänstepensionen av att sluta arbeta eller gå ned i arbetstid innan 65 års ålder? (Defined benefit occupational pensions - How is the occupational pension affected by stopping work or reducing working hours before the age of 65?)* 2020.

probability of offering part-time solutions. Phased retirement was offered more often by larger organisations. The study also shows that the attitudes of management can be important as to whether employees take advantage of the part-time solution they are offered.²⁴¹

7.4 The option of early retirement for older adults with reduced work ability through health insurance

Disability pensions that make it possible for certain groups to retire early are common in several countries. There are some similarities between this solution and the solution granting early retirement in certain occupations. However, there is a definitive difference, which is about the work ability. With regard to early retirement in certain occupations, it is assumed that those who have worked in the occupation will not be able to work to an older age. There is no test of the work ability in the individual case. The opposite is applicable to disability pensions. There is no assumption made here that the work ability decreases over time but the work ability is tested in the individual case. There are advantages and disadvantages to both solutions. Early retirement based on occupational affiliation was discussed earlier. Here, we continue the discussion around disability pensions.

The discussion is relatively brief due to the recent presentation of a report following a government enquiry into disability pensions (*sjuk- och aktivitetsersättning*).²⁴² The enquiry was commissioned to investigate the requirements for granting disability pensions to older people. The enquiry was also tasked with analysing how the disability pension regulations influence the incentives to exit working life via disability pensions instead of old-age pensions. Consequently, we have not analysed these issues in any detail.

²⁴¹ Eurofound, *Early and phased retirement in European companies*, Eurofound report, 2007.

²⁴² Swedish Government Official Reports 2021:69 *En sjukförsäkring med prevention, rehabilitering och trygghet* (A health insurance with prevention, rehabilitation and security).

7.4.1 Advantages and disadvantages of this solution

One advantage of the disability pension is that this solution is neither a new nor a foreign solution to the Swedish system, which several of the other solutions that we discuss here are. Disability pensions already exists and before being reformed, in practice the benefit acted as a form of early retirement (its name at the times was early retirement pension). If the disability pension is to be chosen as a solution, the issues concern how it should be funded, how it should be structured so as to reach the precise target group the Government wants to reach, and what the applicable future conditions will be in order to be granted a disability pension. An additional question is whether a special benefit should be introduced that is targeted only at people close to the pension age but which is otherwise reminiscent of the disability pension.

There are challenges with using the disability pension as a form of early retirement under the Swedish pension system, given the Governmental commission to ISF. Of course, one challenge is financing a changed and increased disability pension. The costs of an early retirement of this type can barely be funded within the framework of the current pension system but must be covered in another way.

Another challenge is that those in the group that is highlighted by the Government in its mandate, i.e. people with low incomes are likely to receive disability pensions at a low level unless the current system also changes in this respect. The commission to ISF by the Government also includes analysis of the options for early retirement under reasonable financial conditions. What is considered reasonable economic conditions is a matter of definition, but the amount of the disability pension depends on previous income and the group highlighted by the Government in its commission to ISF is characterised by having had low incomes.

We have seen examples from other countries in which income from disability pensions is complemented by earlier payments from occupational pensions. We have also seen that the calculation of disability pension benefits takes the number of working years into account so that it is higher for people with a long working life (for example in Austria). An increase in the level of disability pension in Sweden for those with many working years could be an option for

capturing the intended target group from the Government perspective and give them a better pension and thereby better options for early retirement.

7.4.2 Driving forces and inclusion

The disability pension will not necessarily benefit the group we are investigating. In our commission, the Government points out those with many years of working life and in particular groups that have had heavy work and low incomes. Everyone who has had a long working life in a heavy occupation will not receive a disability pension unless the design of the disability pension is changed or if it is designed in the same way that other countries have chosen to do. In order to reach the group highlighted by the Government without reservation, there can be no additional conditions added other than those that are stated in the Government commission: long working life, heavy work and low income. If there are any additional conditions added, those in the group who meet the three conditions may be excluded and the accuracy reduced. The inability to work appears to be a particularly problematic condition. As we interpret the Government commission to ISF, the intention of a new solution for early retirement is not that those who receive this benefit must have suffered illness or injury in order to retire early.

There are countries in our study in which there are less strict conditions for a disability pension or equivalent form of allowance at older ages. Such less stringent conditions can increase the accuracy. In some countries, the work ability at ages close to retirement is not tested against the entire labour market but only against the occupation of the individual employee. One proposal in this direction was recently presented in a state enquiry into disability pensions – namely that the work ability of older insured individuals should be assessed against work in occupations of which they have experience, as well as other suitable and accessible work.²⁴³ This might be a way of ensuring that a larger proportion of the intended group has access to disability pensions compared to having the same conditions for everyone. One risk may be that such a design would reach a group that is larger than the group intended by the Government in its

²⁴³ SOU 2021:69, *En sjukförsäkring med prevention, rehabilitering och trygghet* (A health insurance with prevention, rehabilitation and security) p. 486.

commission to ISF and will thereby work against the goal of an extended working life. Another disadvantage may be that once again it becomes a form of early age limit in the pension system. Making an exception for those with many working years may also be a potential solution for avoiding these risks. In such cases, those with many working years would not have to meet equally strict requirements in order to receive a disability pension.

7.5 The option of early retirement for unemployed older adults or extended unemployment benefits for older adults

In some countries, older adults are entitled to longer periods with unemployment benefit or the option of early retirement due to unemployment. The option of early retirement due to unemployment is usually conditional: it is a requirement for the unemployment to have lasted for a certain period of time, it must be involuntary, it must be due to structural change in the labour market, or similar reasons. The right to longer periods of unemployment for older adults is sometimes also combined with a higher level of benefits or lower requirements for receiving a benefit.

7.5.1 Driving forces of options for unemployed older adults

The effects of the right to longer periods of unemployment benefits for older adults have been well studied. In recent years, several countries have either abolished or introduced some form of measure. An important starting point is that older adults do not choose to leave work because there are increased or extended unemployment benefits. A German study indicates that low or no willingness to work is rarely a reason for older people exiting the labour market. Rather, they leave the labour market due to a lack of jobs, a lack of employability or skills for available jobs and inadequate support from the public employment agency.²⁴⁴

²⁴⁴ Wuebbeke C., The limitations of activation policies: unemployment at the end of working life *Ageing and Society* Vol. 31(06): 977–1002. 2011

A Finnish study indicates that older people who are entitled to longer periods of unemployment benefits exit the labour market to a greater extent than other older people. The study found that approximately half of all unemployed people with extended unemployment benefits chose to stop looking for new work.²⁴⁵

In the Netherlands, there was previously a right to unemployment benefits until retirement (65 years) for those older than 57.5 years of age, which was seen as an incentive to take early retirement through unemployment benefits. When the right was abolished in 2003, there was a decrease in the number of people who became unemployed at 57.5 years of age. This may be because it is easier to dismiss an older person who is entitled to longer periods of unemployment benefits, as there is less risk that they will oppose dismissal.²⁴⁶

Entitlement to longer periods of unemployment benefits in France also decreased in 2003. One study used the occasion as a natural experiment and came to several interesting conclusions. The study was successful in identifying that redundancies planned for different occasions are linked to different qualifying points in the French unemployment benefit system so that the person can take out unemployment benefits until the person receives a pension. Thus, terminations were done when it was favourable to the worker.²⁴⁷

The French study found that those employees who have worked for the employer for a long time at a high salary are dismissed more often around the occasions that are favourable to unemployment insurance. The study argues that it may be because it is important for the employer to maintain a good reputation among current and potential employees. Employers do not have the same consideration for those who have not worked for the employer for the same length of time and who are on a lower salary. The association therefore exists only when the employee is dismissed for personal and not financial reasons. This is explained by the fact that when the dismissal takes place for personal reasons, the employee has a greater opportunity to

²⁴⁵ Kyyrä T., and Ollikainen, V., To search or not to search? The effects of UI benefit extension for the older unemployed. *Journal of Public Economics* 92(10):2048-2070. 2008;

²⁴⁶ van Ours J. C. och Tuit, S., How changes in unemployment benefit duration affect the inflow into unemployment. *CentEr Discussion Paper, Microeconomics*;2010-07. 2010

²⁴⁷ Remillon D. and Baguelin, O., Unemployment insurance and management of the older workforce in a dual labor market: Evidence from France. *Labour Economics*.30:245-264. 2014

take legal action with regard to the dismissal in the same way as in the Dutch study described above.²⁴⁸

Employees with fixed-term employment do not follow the same pattern, although there is also an increase in the favourable occasions. The increase can be explained by the fact that they plan when they will become unemployed themselves in order to receive a favourable unemployment benefit.²⁴⁹

The French study found that high-income earners became unemployed to a greater extent at the right time and therefore took advantage of the favourable options for unemployment benefits. Older individuals who do not have the option of negotiating their retirement are impacted the most if the right to unemployment benefits is limited.²⁵⁰

There are more examples of countries that have introduced or abolished the same types of benefit and had similar effects. Some regions in Austria introduced a right for older adults to extended periods of the unemployment benefit. There, the unemployment periods for older adults became longer and the proportion who became unemployed became greater.²⁵¹ Similar results can be seen in a recent study from Finland, where the right of older adults to longer periods of unemployment benefits has been limited. The proportion who became unemployed decreased; older adults were unemployed for shorter periods and returned to work more often. Following the reform, there was no longer a significant difference between the older target groups and the younger ones that were not included in the reform.²⁵²

²⁴⁸ Remillon D. and Baguelin O., Unemployment insurance and management of the older workforce in a dual labor market: Evidence from France. *Labour Economics*. 30:245-264. 2014.

²⁴⁹ Remillon D. and Baguelin O., Unemployment insurance and management of the older workforce in a dual labor market: Evidence from France. *Labour Economics*.30:245-264. 2014.

²⁵⁰ Remillon D. and Baguelin O., Unemployment insurance and management of the older workforce in a dual labor market: Evidence from France. *Labour Economics*.30:245-264. 2014.

²⁵¹ Winter-Ebmer, R., Benefit duration and unemployment entry: A quasi-experiment in Austria *Elsevier European Economic Review*,47(2):259-273. 2003

²⁵² Kyyrä T. and Wilke RA, Reduction in the Long-Term Unemployment of the Elderly: A Success Story from Finland, *Journal of the European Economic Association*, 5(1):154-182. 2007.

What can we learn from the early retirement policies in different countries?

The studies show that the right to longer periods of the unemployment benefit among older adults leads to an increase in unemployment among this group. Older people are dismissed more often and leave the labour market earlier.

The option of an early exit from the labour market through unemployment benefits or early retirement due to unemployment has also other effects. There is a substitution effect between different options for early retirement. When there are no options for early retirement through unemployment benefits or drawing an early pension, other options for early retirement are used.

In Sweden it is possible to draw the general pension from the age of 62. As there is no right to longer periods of unemployment benefit for older adults or the possibility of early retirement through the unemployment benefits, the group has to choose to draw the general pension early if it wants or needs to exit the labour market early. Those who exit the labour market early and then draw a pension receive a significantly lower pension than others do.

An option for early exit from the labour market through the unemployment benefit would protect older adults from having to withdraw pensions early and therefore lead to a higher pension, not least if the unemployment benefit is pensionable.

7.5.2 Specific requirements to limit the number of people

In many countries, there are specific requirements that have to be met in order to receive early retirement in the event of unemployment. Setting different requirements for the option of early retirement for unemployed older adults can influence the proportion of older adults who can benefit from this option and avoid consequences that have a significantly negative impact on labour force participation by older adults.

Age requirements play an important role in the discussion around how unemployment benefits for older adults influence the total supply of labour. For example, this is shown in two evaluations of

change in the minimum age in Finland.²⁵³ The age requirements differ between countries – from the age of 57 in Luxembourg²⁵⁴ to 65 in Denmark (the requirement is currently lower in Denmark but is gradually increasing).²⁵⁵ The age requirement is usually somewhere around the age of 60. In some countries there are differing age limits for women and men – in Poland for example where it is 55 years of age for women and 60 for men.²⁵⁶ Different options for the sexes have become increasingly rare.

The majority of countries also have requirements for the number of pensionable years of pension, social insurance or unemployment insurance: 30 years in Denmark, 35 (voluntary unemployment)²⁵⁷ or 33 years (involuntary unemployment) in Spain.²⁵⁸ There may be countries that do not have requirements for pensionable years but we have not seen that in our review. Some countries have several different levels of requirements for pensionable years. For example, in Portugal, unemployment from 52 years of age, 22 pensionable years and that the person has reached the age of 57 is required or unemployed from the age of 57, 15 pensionable years and 62 years of age is required. Both alternatives require that the right to unemployment benefits has already been exhausted.²⁵⁹

Only certain types of unemployment are valid in some countries. In Luxembourg²⁶⁰ and Poland²⁶¹, unemployment must be the result of bankruptcy, restructuring or similar. Spain has different rules for voluntary and involuntary unemployment.²⁶² For involuntary unemployment and 33 pensionable years, the pension can be brought forward by four years. For voluntary unemployment and 35 pensionable years, the pension can only be brought forward by two years.

²⁵³ Kyyrä T. and Wilke, RA, Reduction in the Long-Term Unemployment of the Elderly: A Success Story from Finland, *Journal of the European Economic Association*, 5(1):154–182. 2007 and Kyyrä T. and Pesola H., Long-term effects of extended unemployment benefits for older workers, *Labour Economics*, 2020; 60

²⁵⁴ OECD, *Pensions at a glance 2019: Country Profiles – Luxembourg*, 2019.

²⁵⁵ OECD, *Pensions at a glance 2019: Country Profiles – Denmark*, 2019.

²⁵⁶ OECD, *Pensions at a glance 2019: Country Profiles – Poland*, 2019.

²⁵⁷ OECD, *Pensions at a glance 2019: Country Profiles – Denmark*, 2019.

²⁵⁸ OECD, *Pensions at a glance 2019: Country Profiles – Spain*, 2019.

²⁵⁹ OECD, *OECD Reviews of Pension Systems - Portugal*, 2019.

²⁶⁰ OECD, *Pensions at a glance 2019: Country Profiles – Luxembourg*, 2019.

²⁶¹ OECD, *Pensions at a glance 2019: Country Profiles – Poland*, 2019.

²⁶² OECD, *Pensions at a glance 2019: Country Profiles – Spain*, 2019.

There are also other requirements. In Denmark the allowance requires that people have paid a contribution for many years, which can then be used for early retirement. The person must have been a member of the unemployment fund for a minimum of 30 years and must have paid a special “early pension contribution” during these years. In addition, the person must be qualified in order to receive unemployment benefits when they transition to early retirement. The pension consists of the ordinary amount of unemployment benefit but has a lower ceiling at 91 per cent of the ordinary amount. The pension works as a transition to a regular pension and can currently be started at 62 years of age, but the age will be gradually raised to 65 years of age.²⁶³

7.5.3 Financial consequences for unemployed older adults

In the majority of cases, early retirement or transitional pension reduces the pension. An example is Luxembourg where during the first year, the payment is 85 per cent of the income (with a ceiling) for the last year in which the person worked, 80 per cent in the second year, 75 per cent in the third year.²⁶⁴ In Portugal, all early pensions are reduced by a factor based on life expectancy at the age of 65 the year before retirement, as well as by 0.5 per cent per month of early retirement if it begins before the age of 62.²⁶⁵

In Italy, the employer pays unemployment benefits in the event of redundancy and must also continue to pay the pension contribution, so that the pension of unemployed older adults is not as impacted in such a negative way. This can be a way in which to avoid consequences for the future pension that are too negative in the event of early retirement associated with unemployment.

7.6 The financing of the solutions

Irrespective of which solution that is discussed and proposed, it is important to consider the issue of financing.

²⁶³ OECD, *Pensions at a glance 2019: Country Profiles – Denmark*, 2019.

²⁶⁴ OECD, *Pensions at a glance 2019: Country Profiles – Luxembourg*, 2019.

²⁶⁵ OECD, *OECD Reviews of Pension Systems - Portugal*, 2019.

Sweden has a defined contribution pension system. If those who have already started working in adolescence are allowed to start receiving a pension at a younger age than others, it means a low pension if there is no complementary financing. Those who retire earlier will receive a lower pension than others because the contributions they have paid during adolescence are usually low as a result of low income during these years. They are also expected to receive a pension for more years than those who retire at an older age, which leads to a lower pension due to the annuity divisor. In order for them to not become retirees with low pensions compared to others who have worked for the same number of years but started at an older age, complementary financing or a deviation from the annuity divisor is needed.

For those who receive an early pension because they worked in occupations with a pension age lower than that for others, the benefit level from the general pension system will also be lower than for others. They have worked for fewer years and are expected to receive a pension for more years, both of which lead to a lower pension than for others. A supplement can be made through occupational pensions, through higher pension contributions for those working in occupations with a lower pension age, or through state contributions if the lower pension age is decided through legislation.

Additional financing may also be needed for different types of part-time solutions. Those who are partially retired receive a lower pension when they reach the full pension age than those who work full-time until the full pension age. This can be compensated through agreements such as those regarding flexpensions or through public contributions to the pension for those who reduce their working hours once they have reached a certain age.

Leaving via disability pension and unemployment insurance or similar benefit schemes also leads to a lower pension than what those who can work up to the full pension age. If it becomes easier to exit via this type of system without additional measures, it means that more people will have low pensions. Here, too, state contributions to the pension can be a solution.

7.7 Measures for making more people to be able to work longer - a concluding discussion

The purpose of our report is to investigate paths for early exit from working life in a number of other countries and discuss their relevance to Sweden. Here we will describe some measures that are intended to enable more people to work for longer.

The majority of people who exit working life early do so because they cannot continue working for health reasons. Their health has deteriorated so that they can no longer work. How the healthcare system works is therefore an important part of the policy in order to enable more people to continue to work. This may apply to everything from screening for different diseases and vaccination and treatment of those who have contracted different diseases to measures aimed at harmful effects from smoking, alcohol consumption and obesity. Studies show that the number of years of good health increases over time but also that many people still have many years of poor health.

A second important group of measures aims to improve the working environment. Many people are unable to continue working as a result of the difficulties and injuries they have sustained at work. An effective work environment initiative can contribute to enabling more employees to continue working. This can be done through information and inspections of the working environment and by making it more expensive for employers to have a poor working environment. This could be done by making the occupational injury insurance a primary insurance for which the fee differs with the occupational injuries sustained. See Sjögren Lindquist and Wadensjö (2008, 2012) for a discussion of such a solution with examples of how occupational injury insurance is organised in some other countries. It would then be different from how it is now, where the insurance is a secondary insurance that complements health insurance.

A third group of general measures is educational initiatives for adults. They may be targeted at those who have lost, or are about to lose their jobs due to structural changes. See for example Rutledge et al. (2020) for an overview of research on how technological changes can impact

older workers. They can also be targeted at those who can no longer continue to work in the occupation for other reasons. There are several such forms of education in Sweden. If the objective is for more people to be able to work longer, experience from other countries shows that reinforcing the option of further education and adult education could increase the conditions for more people to work longer. There are good opportunities to learn from examples taken from other European countries. See Olofsson and Wadensjö (2020, Chapter 3) for examples from several countries. Education can be arranged through government initiatives, through contract solutions or through a combination of the two types of policy.

A fourth group of general measures goes through the tax system, such as lower taxes or lower employer contributions for the gainfully employed older adults. The purpose of this type of measure is to increase the supply (through lower taxes) and the demand for older labour (through lower employer contributions).

A fifth group of general measures are those that are intended to reduce the presence of age discrimination. For example, for a review of different types of discrimination, see Lundahl and Wadensjö (2014). See Gonzales et al. (2021) for a comprehensive list of research on age discrimination. Older people who become unemployed often have long periods of unemployment, longer than that for the young unemployed. One explanation may be that older adults are subject to discrimination at the recruitment stage. See OECD 2020, which points out that age discrimination is a common form of labour market discrimination.

To conclude, we would like to say that investigations are required in order to find the best solution or several solutions with a design that also considers improvements in working life to reach people with many years in working life, especially those who have been employed in heavy work and lower incomes. A good start might be to conduct a mapping of the number of years in work defined in several ways for different occupational groups and qualification levels, for people on low incomes and for those with a medical history. The expected time as a pensioner can also provide additional information about the costs of early retirement and should be highlighted for these groups. The issue of financing is an important one to investigate. Depending on the solutions chosen, there may be different and complementary financing options.

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