

Statistics from  
The Finnish Centre for Pensions



## **Expected effective retirement age and exit age in the Nordic countries and Estonia**

Edited by  
Jari Kannisto  
Mika Vidlund



Statistics from the Finnish Centre for Pensions 02/2022

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## Abstract

In recent years, one main objective of the changes carried out in pension schemes has been to postpone effective retirement. The central challenge is the extent to which pension reforms will translate into a rising effective retirement age.

This report examines the effective retirement age in the Nordic countries and Estonia by using two complementary indicators: the expected effective retirement age (expectancy) and the labour market exit age (exit age). Since the exit age and the expectancy are closely related, they tell us mainly the same story. In all the countries studied, policy measures have sought to delay retirement. Indicators show that this has also happened. Although there are still some clear differences between countries within these indicators, they have narrowed during the review period.

The data for the expectancy is based on national data on retirees. The data has been harmonized to reach the comparability between the countries. The data for the exit age is based on Eurostat employment statistics (Labour Force Survey).

Calculations show that the expected effective retirement age for 30-year-olds has increased most in Finland and Denmark during the research period from around 60 to 63 years. In Norway and Iceland, on the other hand, the expectancy has declined. Sweden has maintained a high expectancy while Iceland shows a high degree of fluctuation, especially during the years following the financial crisis in 2008. In very recent years, all the countries have witnessed an upward trend. In 2020, the expectancy for 30-year-olds varies between 60 in Norway and 64 in Sweden.

Changes in the expected effective retirement age for 50-year-olds during the review period seem to be smaller than those for 30-year-olds. The level of 50-year-olds is highest in Sweden, at 65 years. Denmark has reached nearly the same level as Sweden. The expectancy in Denmark and Finland have risen at an even pace in the 2010s; in recent years, they have been at the same level as in Iceland (64). The lowest expectancy throughout the review period is found in Estonia. It is noteworthy that the expectancy has risen by nearly three years from the level before the 2010s to the current level of 63 years. In Norway, the expectancy is at the lower level than it was before the pension reform in 2011.

The exit age has risen steadily in the countries studied, except for in Iceland. Otherwise, the exit age has increased during the period under review for both men and women. In Iceland there appears to be no rise since 2010, but the exit age has been clearly higher than in other countries during the years under review. The largest increase between 2011 and 2020 has taken place in Estonia. The increase for both genders has been more than two years.

Despite an overall positive trend, the results are not that straightforward. For example, even though the 2011 reform in Norway has led many seniors to work longer, Norway has also witnessed a strong growth in the number of seniors who are receiving their

pension. After the 2011 reform, far more people, particularly men, work beside receiving a pension. This can also be seen comparing the difference between the exit age and the expected effective retirement age.

Countries can be divided into two groups when calculating the difference between exit age and expected effective retirement age for 50-year-olds. The difference between these two indicators in Iceland, Estonia and Norway is 2–3-years higher than in Denmark, Finland and Sweden. Higher exit age illustrates that continued work after retirement is more common in the former group of countries.

In this report, we have also calculated the retirement period based on life expectancy statistics published by Eurostat for both above-mentioned indicators. The average length of retirement is between 15 to 20 years if the calculation is based on the exit age, and from 18 to 21 years if the calculation is based on the expected effective retirement age. For the former, time spent in retirement is the shortest in Estonia and the longest in Finland. For the latter, the time in retirement is the longest in Norway and the shortest in Denmark.

In all countries the time spent in retirement was shorter for men than for women. In Estonia, men have the shortest time in retirement for both indicators. This also reflects the lowest life expectancy of men in Estonia. For women in all countries, time spent in retirement is shorter than the EU average, whereas Estonian and Icelandic men spend a shorter time in retirement in comparison to the EU average. Otherwise, men are at the same level as the EU average.

## Foreword

This report has been compiled in cooperation with national pension experts from Denmark, Estonia, Finland, Iceland, Norway and Sweden.

The persons responsible for the contents of the report are the following: Kristiina Selgis, Hede Sinisaar and Elo Reitalu (Ministry of Social Affairs, Estonia) Hanna Linnér (Swedish Pensions Agency, Sweden); Atle Fremming Bjørnstad and Ole Christian Lien (Norwegian Labour and Welfare Administration, Norway); Haukur Eggertsson (The Social Security Administration, Iceland); Michael Jørgensen, Jeppe Eir and Karen Skriver Løuger (ATP Group, Denmark); and Jari Kannisto and Mika Vidlund (Finnish Centre for Pensions, Finland). The report was edited at the Finnish Centre for Pensions.

In addition to the persons responsible for the contents, several persons have assisted in the preparation of the report. In addition, Lena Koski and Merja Raunis (Finnish Centre for Pensions) have also contributed to the preparation of the report.

We want to thank everyone involved for their cooperation and valuable input in preparation of this report.

Jari Kannisto and Mika Vidlund

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## 1 Introduction

Nordic countries and Estonia have carried out significant pension reforms, especially in the 2000s, to strengthen the financial sustainability of pension schemes and to secure pension adequacy in a context of increasing life expectancy. The countries have been linking benefits or retirement ages, or both, to life expectancy while restricting or closing routes to early retirement. The reforms aim to increase the effective age of retirement which, together with increased labour participation of older workers, would alleviate the burden of an ageing population. The central challenge is the extent to which pension reforms will translate into a rising effective retirement age.

This report provides cross-national comparison on the development of the effective retirement age and exit age in the Nordic countries and Estonia based on statistical analysis. Note that retirement in this report is defined as withdrawing a pension, regardless of whether the person continues to work. To measure labour market withdrawal as well, two complementary indicators – the expected effective retirement age and the exit age – are used in the survey. These indicators are calculated in the same way in all countries (Nordic indicators).

National indicators have previously been applied in Finland, Norway and Sweden. Additionally, the Finnish Government and central labour market organisations have set a specific national pension policy target in 2009: the expected effective retirement age of a 25-year-old is to rise from 60.4 to 62.4 years by 2025. Although the definition of the national indicators and the common Nordic indicator differ somewhat from each other, the differences in results are small. Both indicators respond to changes in the same way, which indicates that the common Nordic indicator is useful and gives a true picture of the developments in the individual countries (see Figure 6.3.4).

The expected effective retirement age is calculated in a way that is quite similar to the method used in calculating average remaining life expectancy. The indicator describes the effective retirement age, assuming that the retirement risk and mortality for each age group remains at the level of the year of observation. A key point is that the indicator is not affected by the age structure of the population.

This report presents the estimated effective retirement age in each country for 30-year-olds and for 50-year-olds based on coherent data. The data for the expected effective retirement age has mainly been obtained from the employment data of each country's statistics office, and they include the statutory pensions for the persons resident in the country. For Norway, the data has been obtained from the Norwegian Labour and Welfare Administration.

The survey is done for the years 2007–2020. The results are now published for the second time for the Nordic countries and for the first time for Estonia. The first report of the expected effective retirement age was published in 2008 ([Statistical Report 2/2008](#), Finnish Centre for Pensions).

The labour market exit age has now been included for the first time in the comparison. The calculation is based on individuals who are in the labour force at the age of 50. The data is based on Eurostat employment statistics (Labour Force Survey). For this indicator, the data is calculated for the years 2011–2020.

This report is structured as follows. Chapter 2 presents a definition and the results of the expected effective retirement age. This is followed by a definition and the results of the labour market exit age in Chapter 3. Differences between the exit age and the expected effective retirement age are presented in Chapter 4. Chapter 5 describes the time spent in retirement based on these two indicators and life expectancy statistics. Finally, a description of the pension systems and country-specific results are provided in Chapter 6.

## 2 Expected effective retirement age

### Definition and formula of expected effective retirement age

The expected effective retirement age (expectancy) describes the average effective retirement age for insured persons of a specific age on the assumption that the age-specific retirement risk and mortality rate for each age group remain at the level of the year of observation. Note that retirement in this report is defined as withdrawing a pension, regardless of whether the person continues to work.

In this report the expected effective retirement age is calculated primarily for 30-year-olds and 50-year-olds. The expectancy for 30-year-olds is used as a general indicator and it describes the retirement of the whole population. Since the pension systems of different countries clearly differ from each other, there is reason to calculate the effective retirement age for 30-year-olds, as they have mostly already achieved a stable status in the labour market and will, in most cases, therefore also retire from the labour market. However, only a small proportion of those who retire are aged under 50. For them the illnesses and handicaps are often such that staying on in the labour market is no longer possible. One reason for calculating the expectancy for 50-year-olds is that the inclination to retire among persons who have reached the age of 50 can be affected also by pension policy.

The expected effective retirement age is calculated by first calculating the insured persons' mortality rate and retirement risk for each age group during the year of observation. Using these proportions, it is possible to calculate how many of a group of insured of a certain size and of a certain age (for instance 100,000 30-year-olds) would retire within one year. The number of insured which remains at a one-year higher age is obtained by subtracting from the original number those who have retired, and the number of deceased calculated from the mortality rates. Continuing in this way age by age until the retirement age for an old-age pension (or some other agreed age as in this report age of 70 years), the calculated numbers of those retiring are obtained for each age group. The average age calculated from these assumed retirements is the expected effective retirement age.

The data used is mainly the employment statistics of each country's statistics office. The data is uniform, since the Nordic statistics offices have in cooperation defined the concepts used. The differences in the pension systems between countries still affect the results. For Norway the data is obtained from the Norwegian Labour and Welfare Administration. The data is based on the data at the point of cross-section for the population resident in the country at the time. The statistics describe the distribution of the population at the end of the statistical year between different statuses (e.g., numbers of retired persons and number of economically active persons).

The descriptions of the pension systems of the different countries also state which pensions or benefits are considered pensions. Since the statistics describes the situation at the time of the cross section, the numbers of persons who have retired have

to be estimated through the population changes and the changes in number of pension recipients for two consecutive years for each cohort.

Since the statistics produced by the statistics offices of the different countries are produced at different dates, the data for this publication is available considerably later than the national data of the different countries. This indicator does not replace the national indicators for the effective retirement age; instead, it supplements them by providing an international dimension.

### Mode of calculating the Nordic expected effective retirement age

Noted:

$x$  = year of observation,

$z_j^x$  = persons resident in the country at the end of year  $x$ , whose age at the end of year  $x$  is  $j$ ,

$p_j^x$  = retired persons at the end of year  $x$ , whose age at the end of the year is  $j$ ,

$v_j^x$  = non-retired persons at the end of year  $x$ , whose age at the end of year  $x$  is  $j$ ,

${}^*e_j^x$  = persons who have retired during year  $x$  (obtained as the difference between stocks of pensions), whose age at the end of the year is  $j$ ,

$y_j^x$  = mortality (risk of death) year  $x$  for persons whose age at the end of the year is  $j$ ,

$f_j$  = mortality factor in age group  $j = \begin{cases} 9, & \text{when } j < 50, \\ 3, & \text{when } 50 \leq j < 60, \\ 1, & \text{when } j \geq 60. \end{cases}$

Mortality for the whole population and for those who are retired differs. This high mortality for those who are retired is taken into account through the mortality factor  $f_j$ .

In which case:

$${}^*e_j^x := p_j^x - p_{j-1}^{x-1} \cdot (1 - f_j \cdot y_j^x)$$

In this case the retirement risk, i.e., retirement risk in year  $x$  at age  $j$ , is:

$$e_j^x := {}^*e_j^x / v_{j-1}^{x-1}$$

and the probability of retirement at age  $j$  is derived from the formula

$$A_j^x := e_j^x \prod_{k=30}^{j-1} (1 - e_k^x - y_k^x)$$

The expected effective retirement age for 30-year-olds is the age average of figure  $A_j^x$ :

$$E_{30}^x := \left( \sum_{j=30}^{70} j A_j^x \right) / \sum_{j=30}^{70} A_j^x$$

At the Nordic level the development of the expectancy for 30-year-olds and for 50-year-olds is monitored.

The retirement probability used for 70-year-olds is 1.

## Results

During the period 2007–2020, the expected effective retirement age for 30-year-olds and 50-year-olds has increased in Denmark, Finland, Sweden and Estonia. The expectancy has increased the most in Denmark. The steadiest increase can be found in Finland and Sweden. Sweden has maintained its high level with minor changes. In Norway and Iceland, on the other hand, the effective retirement age has declined. In Iceland, there is a high degree of fluctuation, especially around the years of the 2008 financial crisis.

Retirement age is the single most important factor in retirement (see Table 2.1; more details Chapter 6). Legal reforms have, among other things, raised the retirement age and closed early exit routes in an attempt to postpone retirement, but reforms may have long transition periods. In Estonia, the lower retirement ages of special groups have not been abolished, which appears in lower effective retirement ages in Estonia than in the Nordic countries especially for men and for 50-year-olds.

In Denmark the most important reform has been to link the retirement age to life expectancy. Simultaneously the retirement age for the voluntary early retirement program (VERP, efterløn) was raised from 2013 and onwards and the length of time that it was possible to receive VERP was reduced from five to three years. Another important reform was the reform of the disability pension scheme in 2012.

The decline in Norway is caused by the 2010 pension reform. The lower retirement age in the mandatory pension scheme was reduced from 67 to 62, for those with pension entitlements at least as high as the minimum pension. Before 2010 only certain groups had access to early retirement from age 62. Before 2010 one had to withdraw completely or partly from the labour market to withdraw an early retirement pension before age 67. After 2010 one could continue working full-time and still withdraw a pension at age 62. This turned out to be a popular option, and therefore the retirement age went down at the same time as the exit age increased in Norway (see Chapter 3).

The state of the economy is also reflected in the effective retirement age. For example, in addition to the 2008 financial crisis, Iceland suffered from an internal bank crisis in the early 2010s, which is seen in the swaying figures depicting the country's effective

retirement age. Almost 90 per cent of the banking system in Iceland collapsed. What happened was that many retired immediately when they lost their jobs in late 2008 and early 2009. Many of those who kept their jobs delayed their retirement, if possible, because they took heavy losses by losing more than 20 per cent of their total capital in both private savings and through the employment-related pension funds. The consequences of the fall of the banks were more-or-less immediate in late 2008, and people could either retire immediately or stay on unemployment benefits for up to two years.

**Table 2.1**

Retirement ages in 2020

	Retirement age	Early retirement age	Options for pension take out
Denmark	66	63 (b. 1957)	-
Estonia	63y 9m (b. 1956)	60y 9 m	-
Finland	63y 9 m (b. 1957)	61 (partial pension)	25%, 50%
Iceland	67	65	-
Norway	62–75	62	20%, 40%, 50%, 60%, 80%, 100%
Sweden	62– (no upper limit)	62	25%, 50%, 75%, 100%

### Expected effective retirement age for 30-year-olds

The expected effective retirement age for 30-year-olds increased the most in Denmark during the period reviewed (Figure 2.1). However, there was a slight decline in Denmark from 2019 to 2020. The main reason for the increase were changes in legislation which raised the age for early retirement and tightened the requirements for the disability pension.

In Norway and in Iceland, the expectancy has decreased. In Sweden, it has remained on a high level, with no big changes. In Iceland, the expectancy fluctuated greatly especially in the years following the financial crisis of 2008. The decrease in the expectancy in Norway is caused by the beforementioned possibility to retire earlier and combine work and pensions flexibly in the mandatory pension scheme. The possibility to withdraw old age pension at age 62 turned out to be popular, especially among men, but many of them continued to work.

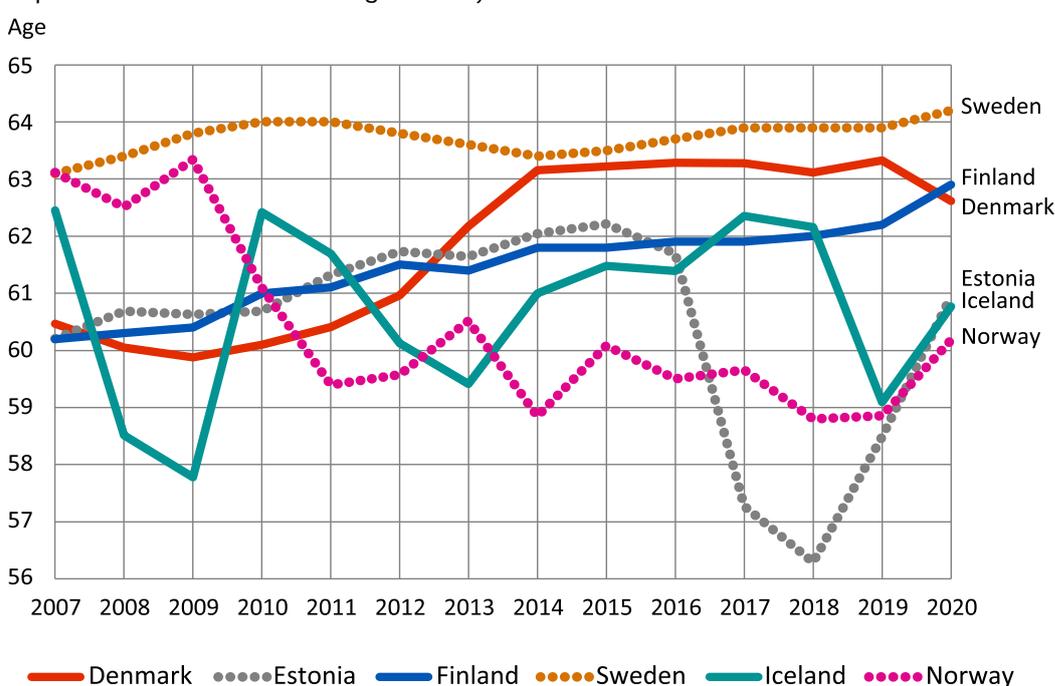
In Finland and Estonia, the effective retirement age has increased from 2007 to 2016; in Finland even after that. In Estonia the effective retirement age fell sharply in 2017. After 2018 the effective retirement age increased again in Estonia, but it is still lower than before the drop.

However, the steep drop and quick recovery in Estonia are mainly technical because of calculation method. Underlying the changes is the transition from disability pensions (capacity of work pensions) to the work ability allowance.

Due to this structural reform, all claimants must undergo a work ability assessment by the Estonian Unemployment Insurance Fund. As a result, the number of non-retired persons increased since not everyone was entitled to the work ability allowance and since better working conditions were created for persons with limited work ability together with several new labour market services. However, this is not reflected in the increase in the retirement age because of the calculation formula<sup>1</sup>. The results are also affected by the data compilation from different sources with a slightly different methodology.

**Figure 2.1**

Expected effective retirement age for 30-year-olds in 2007–2020

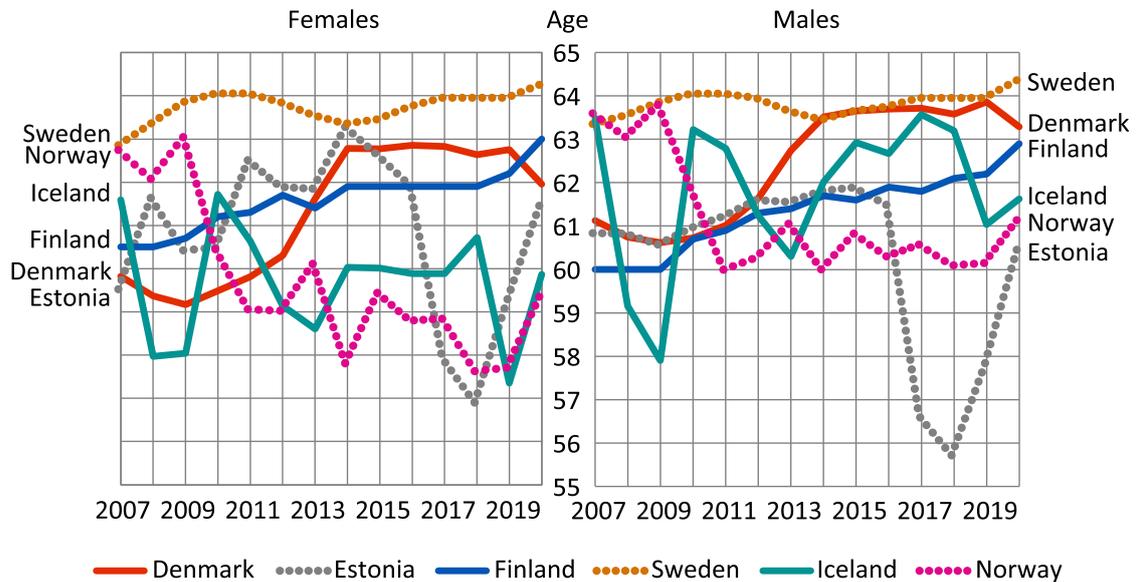


The changes over time of the expected effective retirement age between men and women seem to be similar in all countries (Figure 2.2). The expected effective retirement age for women is lower than for men in Denmark, Iceland and Norway. There are no differences between the men and women in Sweden. In Estonia and Finland, women seem to retire later than men.

<sup>1</sup> In Estonia's case the number of retirees changed significantly which led to unexpected results. That was caused by the structural changes within the pension system (see definitions on persons who are counted as retirees in one year).

**Figure 2.2**

Expected effective retirement age for 30-year-olds by gender in 2007–2020



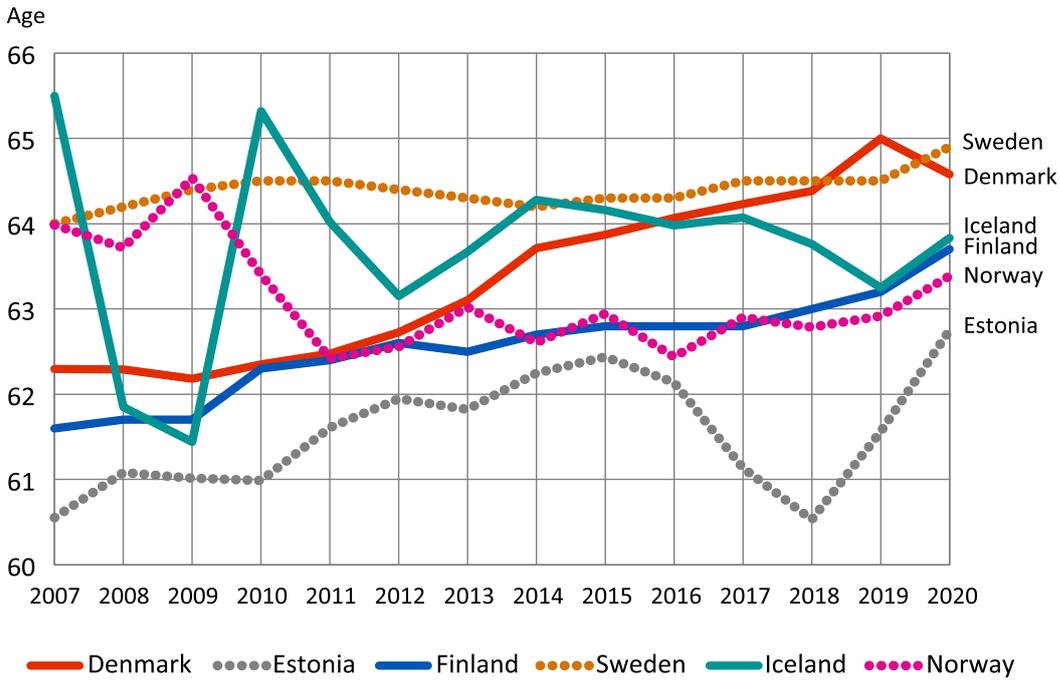
### Expected effective retirement age for 50-year-olds

The changes in the effective retirement age for 50-year-olds during the review period seem to be smaller than those for 30-year-olds. In Finland and Sweden, the development with both indicators is the same – only the level of the 50-year-olds is higher. In Denmark, the effective retirement age of the 50-year-olds has reached the same level as in Sweden (Figure 2.3).

The effective retirement ages in Norway and Finland have risen at an even pace after 2010; in recent years, they have been at the same level as in Iceland. The lowest effective retirement age throughout the review period is found in Estonia. However, it has risen by nearly three years from the level before the 2010s. In Estonia, the fluctuation in 2017–2018 is due to same reason as previously mentioned for 30-year-olds but not as significant drop. Overall, the trend is upwards when looking at the change between the years 2007 and 2020.

**Figure 2.3**

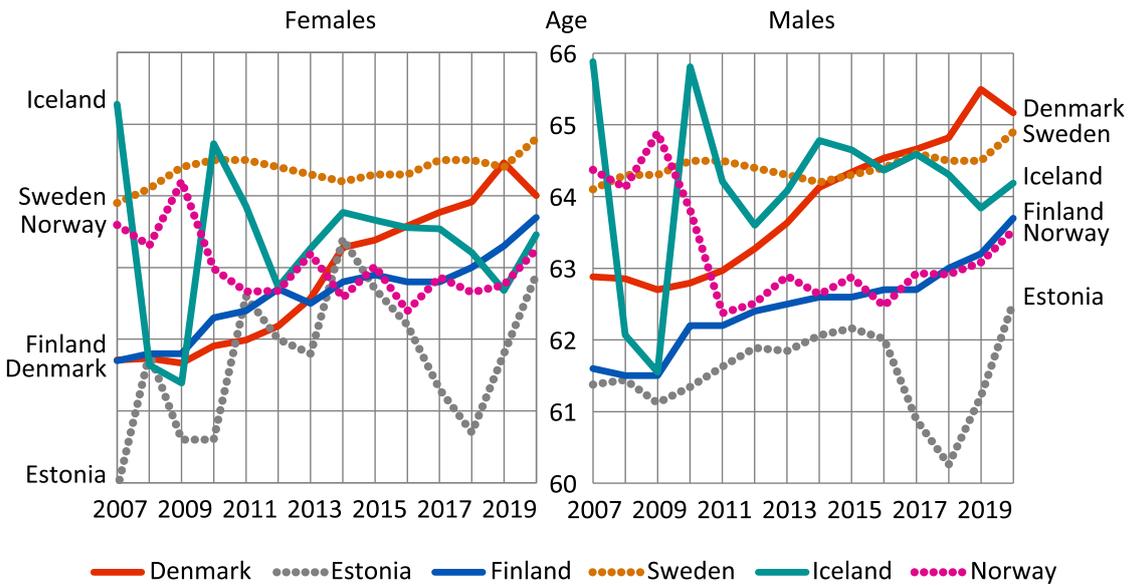
Expected effective retirement age for 50-year-olds in 2007–2020



The expected effective retirement age is similar by gender for both 30- and 50-year-olds (Figures 2.2 and 2.4). In 2020, the expectancy for 50-year-olds Danish men was the highest and that of Estonian men the lowest. The highest effective retirement age of women was found in Sweden and the lowest in Estonia. For women from other countries, the expectancy was on the same level in 2020.

**Figure 2.4**

Expected effective retirement age for 50-year-olds by gender in 2007–2020



Results for the expectancy for 30- and 50-year-olds by gender in 2020 are summarized in the following table (Table 2.2).

**Table 2.2**

Expected effective retirement age for 30- and 50-year-olds

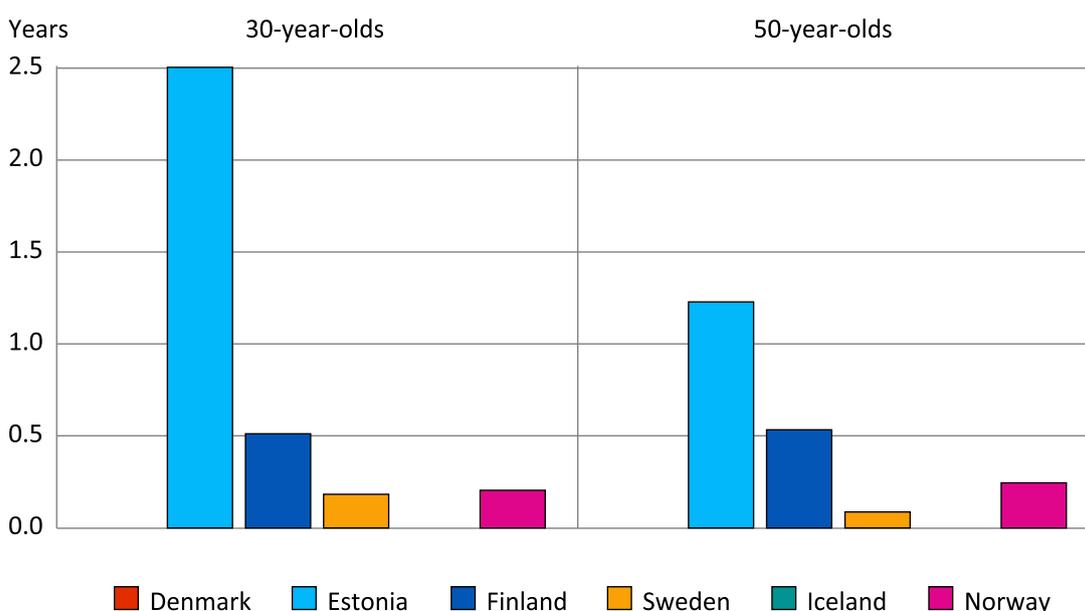
	Denmark	Estonia	Finland	Iceland	Norway	Sweden
For 30-year-olds						
All	62.6	60.9	62.9	60.8	60.2	64.2
Females	62.0	61.4	63.0	59.9	59.3	64.2
Males	63.3	60.4	62.9	61.6	61.1	64.3
For 50-year-olds						
All	64.6	62.7	63.7	63.8	63.4	64.9
Females	64.0	62.9	63.7	63.5	63.3	64.8
Males	65.2	62.5	63.7	64.2	63.5	64.9

The role of partial pensions varies from country to country. There are no partial pensions at all in Denmark and Iceland. In Estonia the partial old-age pensions have been available since 2021. Earlier there were only partial disability pensions and partial work ability allowances.

The expectancy has been calculated also including the partial pensions (version 2). In Finland, Norway and Sweden, the partial pension has a minor effect on the expectancy. Partial pensions have the biggest effect on the expectancy in Estonia (Figure 2.5).

**Figure 2.5**

The effect of partial pensions on the expected effective retirement age in 2020, difference between version 1 – version 2



There are no partial pensions in Denmark and Iceland.

Version 1: All pensions, excluding the partial pension; Version 2: All pensions, including the partial pension.

### 3 Labour market exit age

#### Definition and calculation of the labour market exit age

The exit age measures the average age of exit from the labour market.

The calculation is based on individuals who are in the labour force at the age of 50. The calculation is made by comparing the labour force participation for every following age group after the age of 50 with the labour force participation at 50 years of age. By doing so, an expected exit age from the labour force is obtained.

50-year-old individuals are used as a baseline for the calculations because of the assumption that the labour force participation is at its peak at the age of 50.

The calculation of the exit age is performed by using a static method that includes data for only one year rather than comparing two years. The basis of the calculation is the changes in labour force participation between successive ages in the given year.

A static method says nothing about the average age when a certain cohort withdraws from work; it shows a snapshot given the current characteristics of the labour market. The result from the static method shows the age at which people who are 50 years old would exit the workforce if the labour force patterns remained the same as in the given year.

The data used for the calculation is statistics of labour force participation provided by Eurostat<sup>2</sup>. In the Eurostat statistics, a minimum of one hour of work per week is required to be included in the labour force. The labour force also consists of persons who are unemployed but available for employment. In these statistics pensioners are also employed if they do a little work. Exit age measures the endpoint for work. Therefore, the retirement age in calculation of exit age usually rises higher than effective retirement age because it includes also the working time at retirement. It also makes comparisons between countries more difficult, as the importance of work in the livelihoods of pensioners varies from country to country.

The Eurostat statistic consists of data for five-year groups. Interpolation must be done to get values per age. This is required for the calculations of exit age. If we used one-year age groups instead of interpolation, the random variability in the results could be greater.

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2 [https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa\\_argan&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_argan&lang=en)

The mathematical description for the calculation of exit age can be found below

$u_t = \text{Exit age}$

$$u_t = \left( \sum_{s=51}^{74} a_t^s / a_t^{50} \right) + 50.5$$

Where  $a_t^s$ =labour force participation rate during year  $t$  in age  $s$ .

## Results

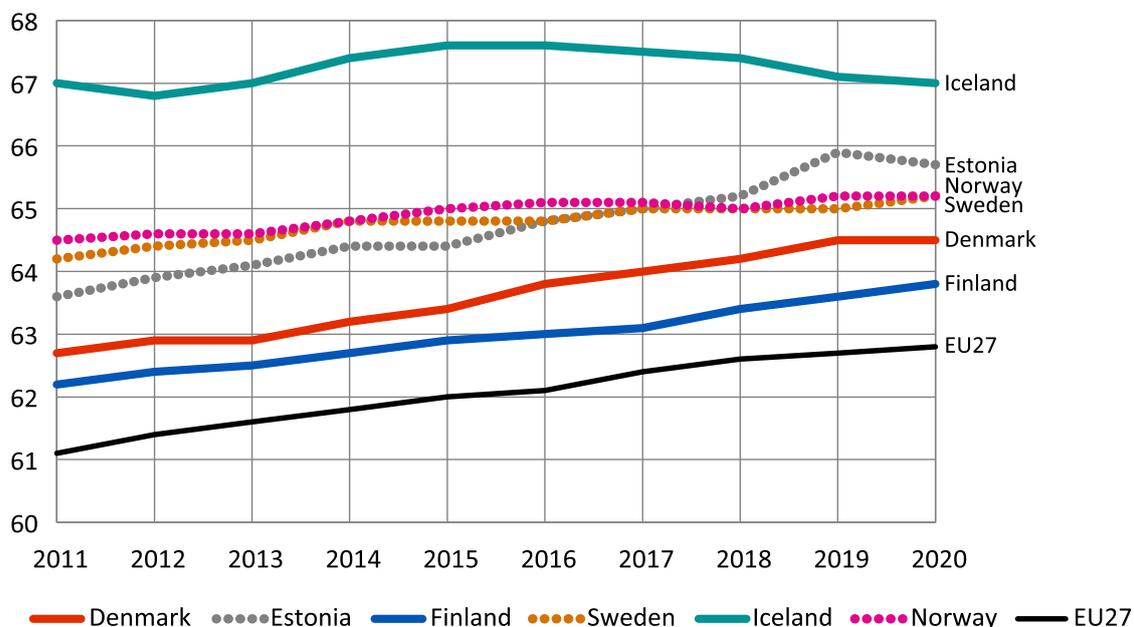
Since the exit age and expected effective retirement age are closely connected, they tell us mainly the same story. The exit age has risen in the Nordic countries as well as in Estonia and throughout the EU (Figure 3.1). Only in Iceland have they not increased in the 2010s, but there the exit age has been clearly higher than in the other countries already a decade ago, and still is. At the same time, the exit age has risen the most in the countries with the highest potential for growth.

Between 2011 and 2020, the largest increase (of more than two years) of the exit age has taken place in Estonia. Denmark is second (almost two years) and Finland is third (about 1.6 years). In Sweden and Norway the rise has been less than one year. The average increase in the exit age for the whole of the EU has been 1.7 years.

**Figure 3.1**

Labour market exit age for 50-year-olds in 2011–2020

Age



Although the differences between countries are still clear, they have narrowed. Iceland shines as number one and Estonia has risen to second place ahead of Norway and Sweden. Denmark and Finland follow and will slowly catch up with the others. In 2020, the average exit age in the EU27 countries was one year less than in Finland (Table 3.1).

The exit age has increased during the period under review for both men and women. In Estonia in 2020, the exit age of women was almost half a year higher than men’s and higher than in Iceland.

**Table 3.1**

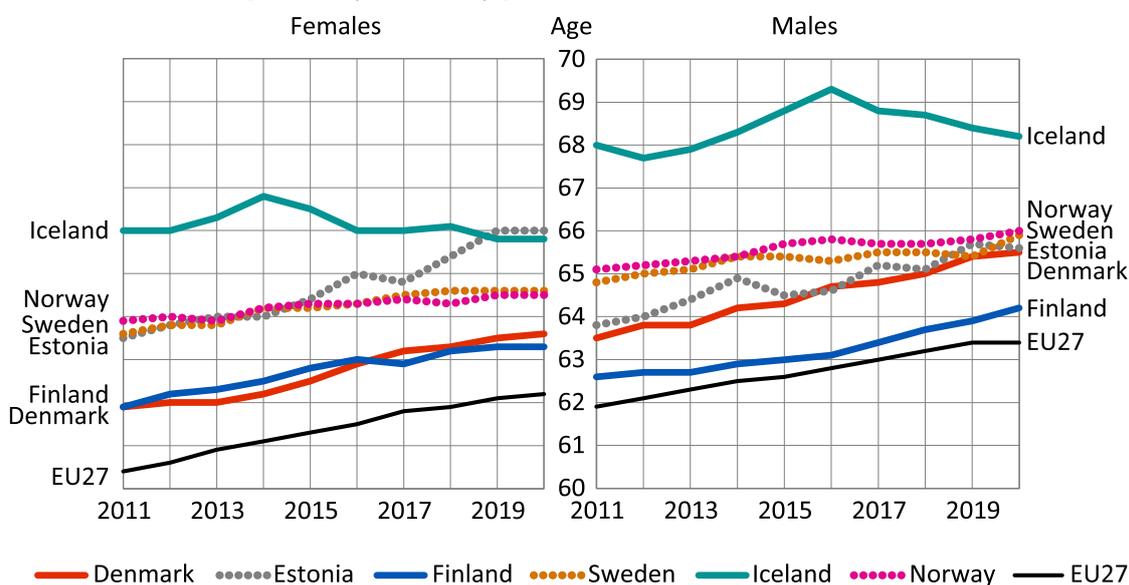
Labour market exit ages for 50-year-olds in 2020

	Denmark	Estonia	Finland	Iceland	Norway	Sweden	EU27
All	64.5	65.7	63.8	67.0	65.2	65.2	62.8
Females	63.6	66.0	63.3	65.8	64.5	64.6	62.2
Males	65.5	65.6	64.2	68.2	66.0	65.9	63.4

In other countries, the exit age of men is higher than that of women (Figure 3.2). In 2020, the average difference in favour of men was more than one year. In Denmark, it was almost two years and in Iceland, 2.4 years. In Norway and Sweden, the difference was around a year and a half. In Finland, the difference was less than one year.

**Figure 3.2**

Labour market exit age for 50-year-olds by gender in 2011–2020

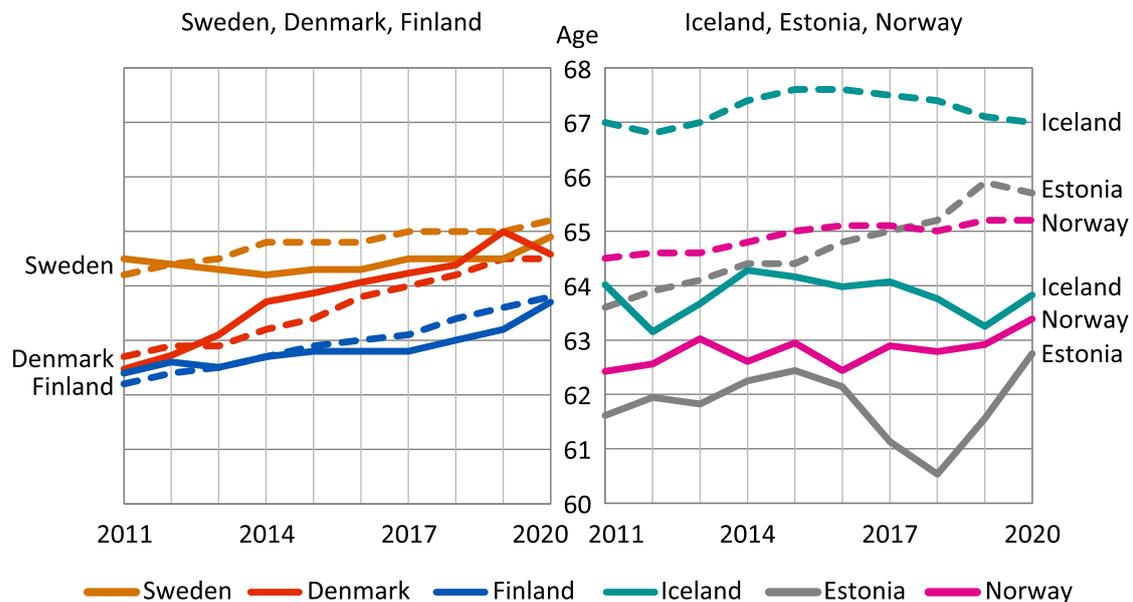


## 4 Difference between the labour market exit age and the expected effective retirement age

How close the labour market exit age is to the effective retirement age varies greatly between the compared countries. In this respect, the Nordic countries are divided into two groups (Figure 4.1).

Figure 4.1

Labour market exit age and expected effective retirement age for 50-year-olds in 2011–2020



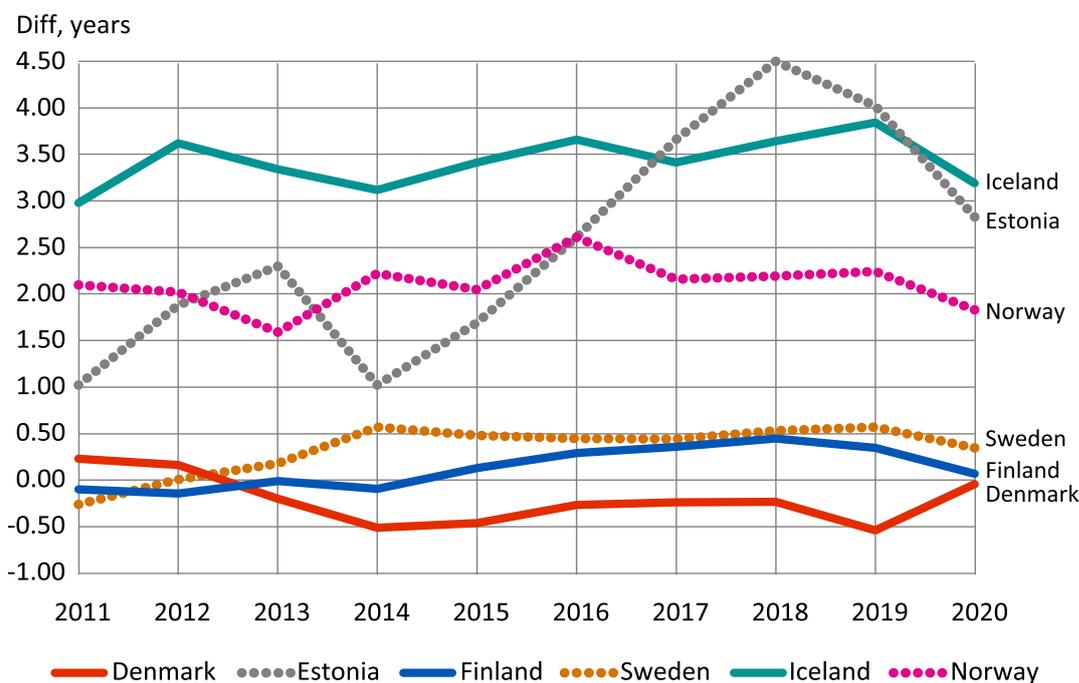
Dashed line = exit age, solid line = effective retirement age

The exit age is higher than the expectancy; in Denmark the situation has been somewhat different. The difference between the exit age and the expectancy in Finland, Sweden and Denmark is small, around half a year. In these countries, working often ends in retirement, and working in retirement is not as common as in the other group of countries. Based on these indicators, working in retirement appears to be relatively common in Iceland, Norway and Estonia. Often, working continues for two to three years into retirement.

The difference between the exit age and the expectancy has remained rather flat during the period under review (Figure 4.2), except for in Estonia, where the gap has increased significantly in the late 2010s. Estonia has witnessed a drop in the expectancy and a strong increase in the exit age in the corresponding time interval, as shown in the previous chapters.

**Figure 4.2**

Difference between labour market exit age and expected effective retirement age for 50-year-olds\* in 2011–2020

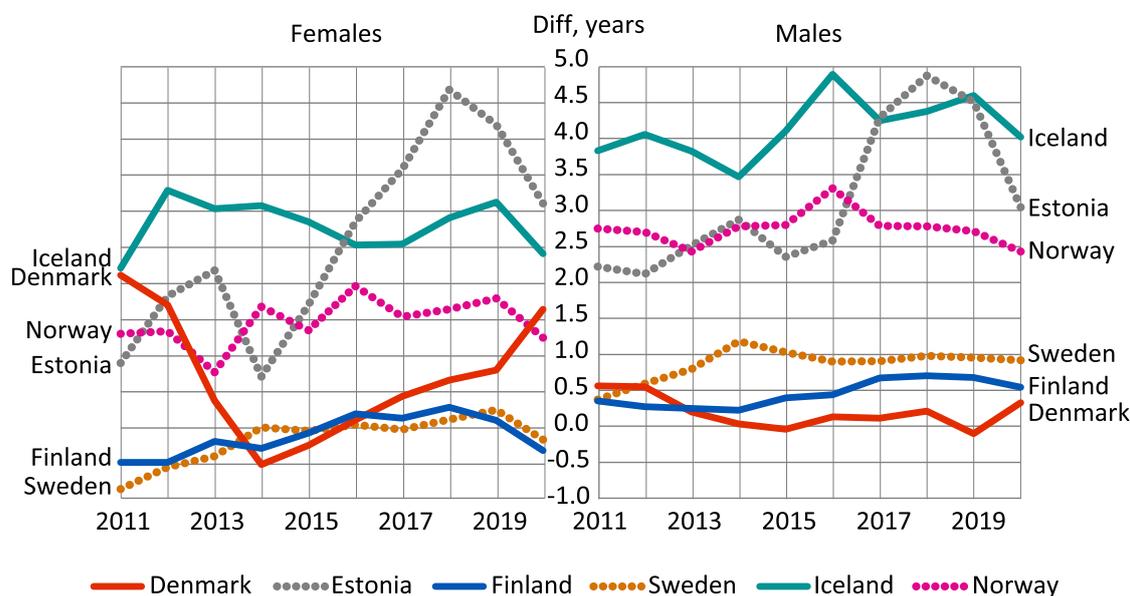


\*Difference between exit age and expectancy for 50-year-olds. The difference has been calculated as exit age minus expectancy.

There are also some differences between men and women (Figure 4.3). For most countries the difference is larger for men than for women. Denmark makes exception with variation over time. In Estonia the difference seems to be similar over most of the years. The gap in men’s exit ages is slightly higher than women’s. The reason is that it is more common for men to be working after retiring. The changes over time have been the biggest in Estonia.

**Figure 4.3**

Difference between labour market exit age and expected effective retirement age by gender\* in 2011–2020



\*Difference between exit age and expectancy for 50-year-olds. The difference has been calculated as exit age minus expectancy.

There are probably several underlying reasons for the difference between the exit age and the expectancy, and the phenomenon can be approached from different directions. Different reasons underly the various behaviour in the countries of comparison, including flexible labour markets, pension levels and other safety nets, as well as employment opportunities for retirees. Pension legislation also plays a central role. As a rule, pension in the Nordic countries secure a basic income for retirees, meaning people are not forced to work in retirement.

The pension reforms in Finland and Denmark have reduced the opportunities for early retirement and raised the retirement age. As the retirement age has risen, the interest in working in retirement may have faded. Traditionally, part-time working has been extensive in Sweden. This has helped people continue working until their retirement age. The motivation to work in retirement, on the other hand, has not been strong in Sweden.

In Estonia, many retirees work. The low pension level may lead to financial difficulties and force people to work in retirement. The retirement age for some Estonians is very low, which may also, for its part, encourage people to work in retirement.

In Norway, pension levels are high. The new, flexible retirement age allows for retirement at an earlier age than before. Many have taken this opportunity to retire at an earlier age although they have continued working. It is common, especially among men,

to withdraw the mandatory pension as soon as possible (at age 62) and still continue working. More than 60 per cent of new old age pensioners in Norway in 2019 were still working one year after retirement (conditioned on working also before retirement). For those who continued working, the average working hours went down only from 33 hours a week before retirement to 31 hours a week one year after retirement, which illustrates that it is common to combine a full pension with full-time work.

The Icelandic society focuses strongly on working and entrepreneurship. Pension levels are also high. Many works in retirement or at least until reaching their retirement age (the highest in the Nordic countries for a long time). Traditionally, the employment rate in Iceland is high, also among those approaching the retirement age. During financial crises, it has been possible to retire more easily. Despite that, many older people have worked if work has been available.

## 5 Life expectancy and time in retirement

The comparison of the length of retirement period is based on the situation in 2019. In 2020, the number of deaths from COVID-19 has led mortality rates to deviate more than usual on a year-to-year basis. For example, in Sweden, life expectancy fell significantly in 2020<sup>3</sup>. In Finland and Denmark, life expectancy remained at roughly the same level. In Iceland and Norway, life-expectancy increased. In Norway, the increase in 2020 was somewhat higher than in 2019. According to OECD's report Pensions at a Glance, Norway has recovered best from the pandemic among the OECD countries. According to projections, the impact of the COVID-19 pandemic is estimated to be an exception in an otherwise steady lifespan growth.

The time of retirement has been calculated in two ways. First, the difference between life expectancy and the expected effective retirement age, and second, the difference between life expectancy and the exit age. The life expectancies used in the calculation is shown in Table 5.1.

**Table 5.1**

Life expectancy for 50-year-olds in 2019

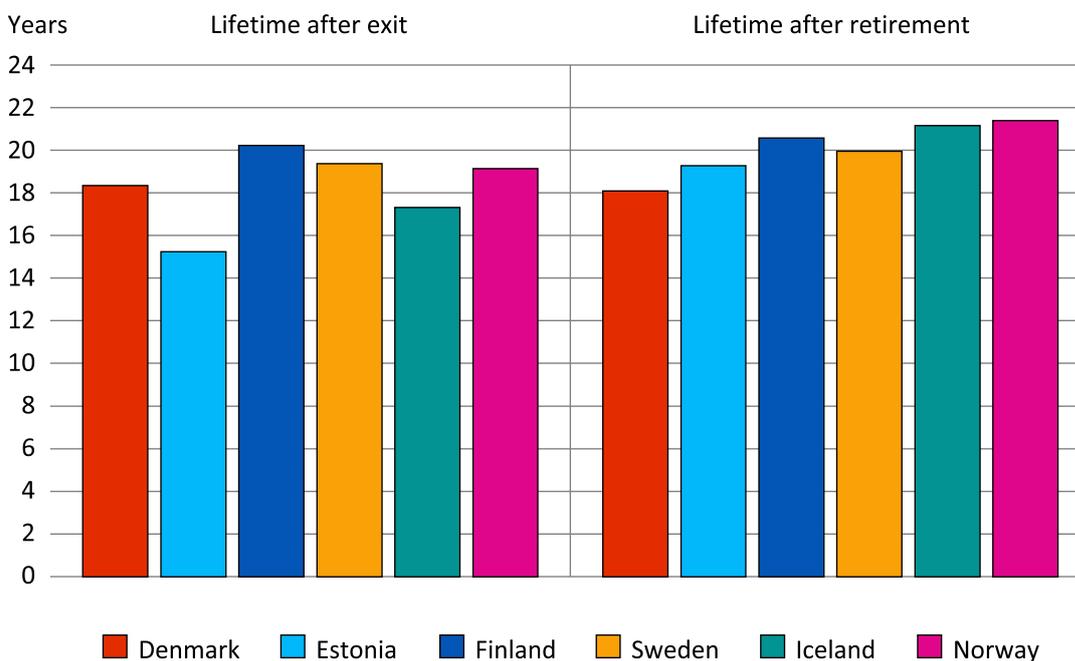
	Denmark	Estonia	Finland	Iceland	Norway	Sweden	EU27
All	32.8	31.1	33.8	34.4	34.3	34.4	32.9
Females	34.4	34.4	36.0	35.6	35.6	35.8	35.2
Males	31.1	27.0	31.5	33.2	32.9	33.0	30.5

The results of the calculations are close to each other (Figure 5.1). The main reason for the differences is probably working during retirement. In Denmark, Finland and Sweden, the results of the calculation of time spent in retirement are similar. In Estonia, the gap is the biggest, with the retirement period after leaving working life being about five years shorter than when calculating using the effective retirement age. In Iceland, the gap is four years; in Norway, more than two years.

<sup>3</sup> In Sweden life expectancy at birth fell by 0.7 years for males from 81.3 years to 80.6 and for females by 0.4 years from 84.7 to 84.3 years (SCB).

**Figure 5.1**

Calculated length of time in retirement after labour market exit and after retirement\* in 2019



\* Obtained using retirement expectancy, exit age and life expectancy for 50-year-olds.

When the calculation was made using the expected effective retirement age, the time of retirement was the longest in Norway and almost as long in Iceland and Finland. On average, the Norwegians spend more than 21 years in retirement. In Denmark, the time spent in retirement is the shortest: 18 years.

When the time spent in retirement is calculated as the difference between the exit age and life expectancy, the Estonians and the Icelandic spend the shortest time in retirement. The longest time in retirement is spent in Finland, about 20 years. For the Estonians, the average lifetime after exit is five years shorter than for Finns.

## Calculated length of time in retirement by gender

The length of time spent in retirement for men (calculated in both ways) seems to be shorter than for women in every country (Figures 5.2 and 5.3).

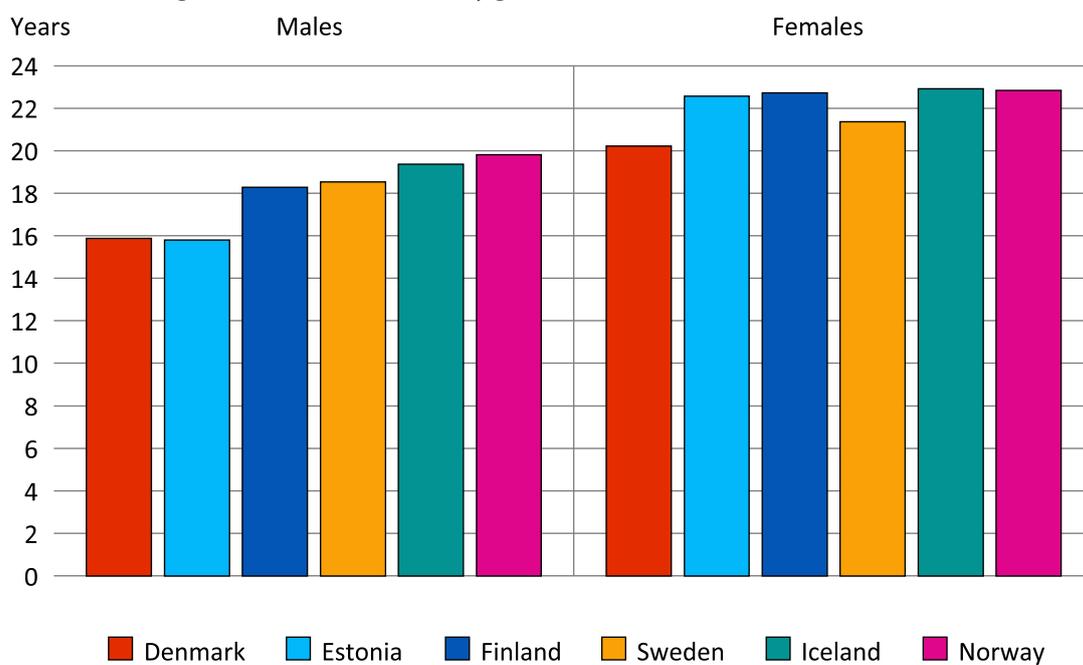
For women, the difference is about four years when the calculation is based on the difference between life expectancy and the expectancy (Figure 5.2) and 5–6 years when the calculation is based on the difference between life expectancy and the exit age (Figure 5.3).

When measured with the expectancy, the shortest time in retirement is spent by the Danish and Swedish women: about 20 years. In the other countries, women spend an average of 23 years in retirement. Danish and Estonian men spent the shortest time in retirement, about 16 years. The Norwegian men spend the longest time in retirement.

Men in Estonia spend the shortest time in retirement also when measurement is based on the exit age, about 12 years. Men in Finland, Sweden and Norway spend the longest time in retirement: at least as long as those in the EU27-countries. Estonian and Icelandic women spend the least time in retirement after the exit age. Finnish women spend the longest time in retirement: as long as women in the EU-27 on average.

**Figure 5.2**

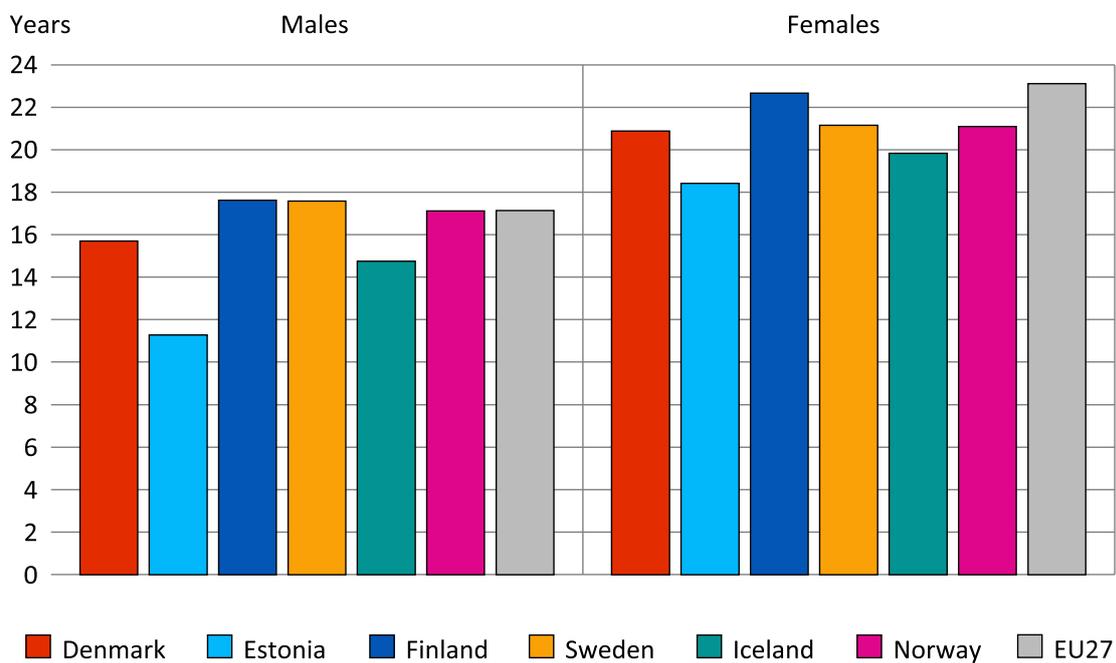
Calculated length of time in retirement by gender\* in 2019



\* Obtained using effective expected retirement age and life expectancy for 50-year-olds.

**Figure 5.3**

Calculated length of time after work by gender\* in 2019



\* Obtained using exit age and life expectancy for 50-year-olds.

## 6 Country Annexes

This section includes descriptions of the reviewed countries' pension systems and reforms and other aspects that have affected the exit age and the effective retirement age since 2006.

### 6.1 Denmark

#### The Danish pension system

The Danish pension is a standard 3-pillar system with public pensions and ATP<sup>4</sup> and OP in pillar 1, occupational pensions in pillar 2 and individual pensions in pillar 3.

The old-age pension (OAP) scheme (Folkepension) is the most important element in pillar 1 and consist of a basic flat-rate pension (Basic amount = Folkepensionens grundbeløb) and two means-tested supplements (Pension supplement = Folkepensionens tillæg and Supplementary pension benefit = Ældrecheck<sup>5</sup>). The OAP is a pay-as-you-go (PAYG) pension. Besides the OAP, there are two other significant public PAYG schemes for pensioners – housing allowance and heating allowance.

Besides the public pensions in pillar 1 there are also two defined contribution (DC) type pensions – ATP and OP. ATP (Arbejdsmarkedets Tillægspension) covers all wage earners and almost all recipients of public transfer payments. The wage earners finance the ATP-contribution out of their salary, while the State finances 2/3 of the ATP contribution for public transfer payment recipients. OP (Obligatorisk Pension) was implemented in 2020 and covers all recipients of public transfer payments. OP was implemented to ensure larger pension savings for those receiving public transfer payments. The OP contribution is financed through a lower indexation of the public transfer payments in general. Since 2006 the “Part time pension scheme” has been terminated in Denmark.

Today there are three main routes to early retirement in Denmark –the Voluntary Early Retirement scheme [VERP – Efterløn (age 63–65)], the Disability Pension [Førtidspension (age 40–59) together with the Seniorpension (age 60–65)] and the

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4 In Denmark, we consider ATP as part of pillar 1 because (a) the scheme applies to virtually all Danes (including people receiving a transfer benefit), (b) the size of the contribution is independent of the size of your income, (c) the scheme is adopted by law, and (d) the State pays 2/3 of the contribution for recipients of the transfer benefit. We also consider OP as part of pillar 1 because the contribution is financed through taxes and because it is adopted by law. There is also a voluntary public pension scheme for people receiving the Disability Pension which is not mentioned in the text.

5 In Denmark, only about 30 per cent receives the second supplement to the OAP (Ældrecheck) because there is a limit to the amount of liquid assets you can hold in order to receive Ældrecheck. Almost 90per cent receives the other OAP supplement (Folkepensionens tillæg).

Early pension<sup>6</sup> [EP – Tidlig Pension (age 64–66)]. VERP rights are earned by paying an extra contribution to the unemployment insurance scheme throughout your working life. Part of the VERP is substituted through taxes. The right to claim a Disability Pension or an OAP follows residency. The requirements for the Disability Pension are lower for those aged 60–65 (Seniorpension). To get EP rights require 42–44 years (seniority points) on the labour market. You also earn seniority points from periods on maternity allowance, flex jobs, wage subsidies, unemployment benefits or sickness benefits.

Private pension schemes in pillars 2 and 3 consist of occupational pension schemes and individual pension schemes which are both based on saving (DC). Until 1987, about 30 per cent of wage earners was covered by an occupational pension scheme, but after a large agreement between the social partners and the Government in 1987 (Fælleserklæringen), occupational pension schemes were expanded to cover most wage earners. By 2020, 89 per cent of the wage earners contributed to an occupational pension scheme - equalling 66 per cent of all persons aged 18–64. Occupational pension schemes are mandatory for most wage earners.

In 2020, 15 per cent of all persons aged 18–64 contributed to an individual pension scheme. Because of the agreement “Fælleserklæring” in 1987, occupational pensions will continue to grow in importance for many wage earners. The occupational pensions are organized either through individual employment contracts or through collective agreements between social partners (the latter being the most common). Individual pensions are fully private, with individual saving schemes that are flexible and voluntary, provided by banks and life insurance companies.

Together, ATP, OP, occupational pensions, and individual pensions ensure a wide private pension coverage in Denmark, but there are still persons who save relatively little or nothing. They are mainly wage earners who are not covered by an occupational pension (about 10 % of wage earners), who are not covered by an occupational pension and self-employed (about 2 out of 3 self-employed).

Today, about 50 per cent of pensioners are paid private pensions from pillar 2 or 3 and on average the payments amount to around 25 per cent of the pensioners' total pension income. In the future, when the new schemes are fully matured, the share coming from private pensions (pillar 2 and 3) is expected to rise to around 50–60 per cent.

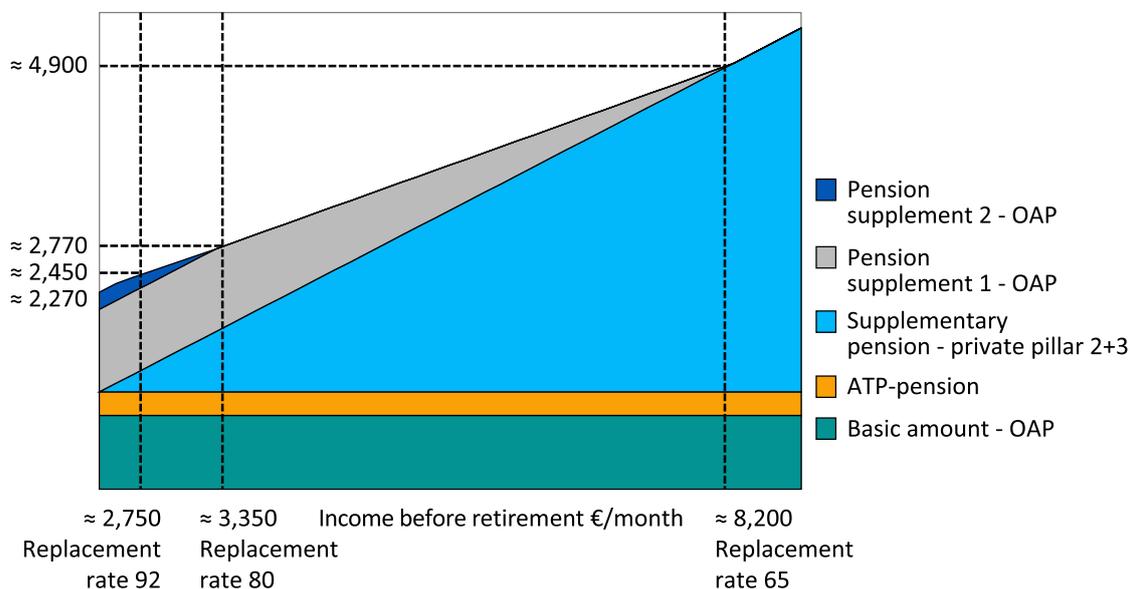
Figure 6.1.1 illustrates the correlation between income (wage) in working life and the total gross expected income in retirement. The chart clearly shows the effect of means testing and the flat OAP level (before means testing). A person with an average monthly income of €2,750 in working life can expect to receive a total monthly pension income of €2,450 in retirement - corresponding to a coverage ratio of 89 per cent. On the other hand, a high earner with an average monthly income of €4,900 in working life will only have a coverage ratio of 65 per cent because of the means testing of private pensions and flat OAP rate.

6 The Early Retirement scheme starts as of 1 January 2022 and is expected to be used by around 24,000 individuals.

**Figure 6.1.1**

## Structure of the Danish old-age pension system

Pension €/month

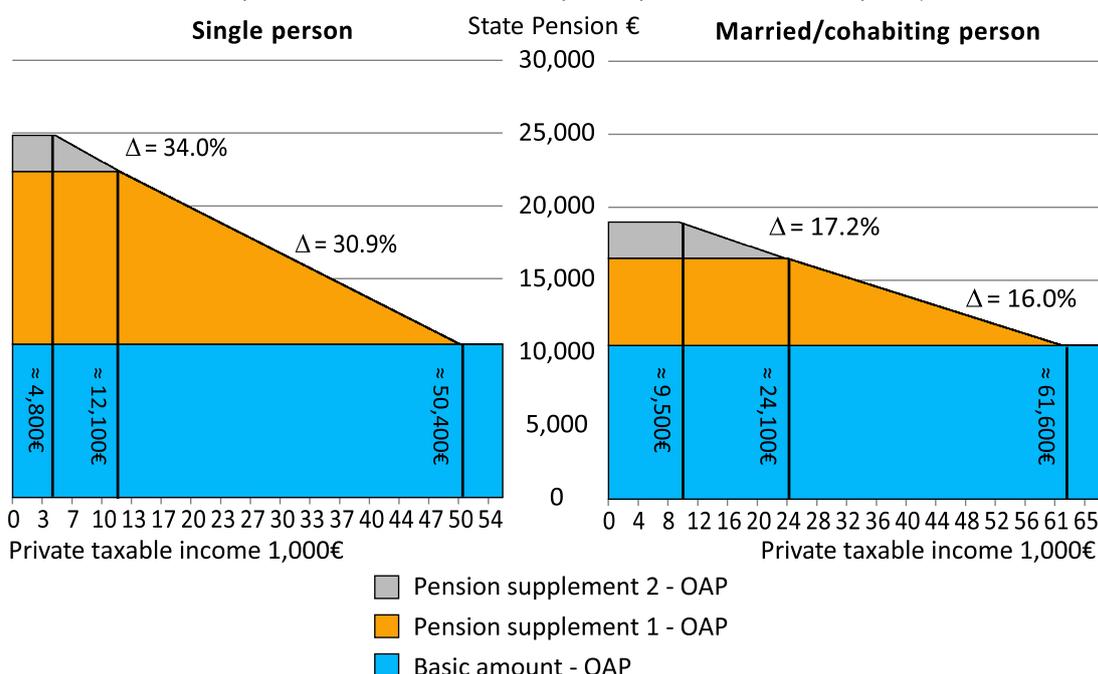


Note: The calculation is based on a single person born in 2000, who spent 50 years on the labour market (age 25–74) contributing the average contribution rate in their income bracket to a DC pension. With the indexation of the retirement age to life expectancy, the person can expect to retire at age 75, after which they can expect to spend 18 years in retirement. In the calculation we use standard industry assumptions about return, costs and other contributions. With a monthly salary of €8,200, the person can expect a total pension income of €4,900 a month, which corresponds to a replacement rate of 65 per cent. Because of the means testing of private pensions against public pensions and the flat OAP rate, a low-income person (€2,750) can expect a replacement rate of 92 per cent.

Source: ATP, 2021

**Figure 6.1.2**

Correlation between private taxable income and public pensions in 2021 split by marital status\*



\* The calculation is based on 2021 regulations. Note that it is assumed that the person does not have income from work and thus will not be means tested in the basic part of the OAP. It is assumed that the married/cohabiting person lives with another pensioner. The housing allowance and the heating allowance are not included in the illustration.

Source: ATP 2021.

### Retirement rules in Denmark

The general retirement age was 67 in Denmark until 2006 after which it was reduced to 65 when a reform of the PEW retirement scheme was adopted in 1999. From 1995 onwards, life expectancy of new pensioners started to increase. This resulted in an increased pressure on public pension spending. To solve this challenge, Parliament passed a reform in 2006 (updated in 2011), introducing two major changes to the system.

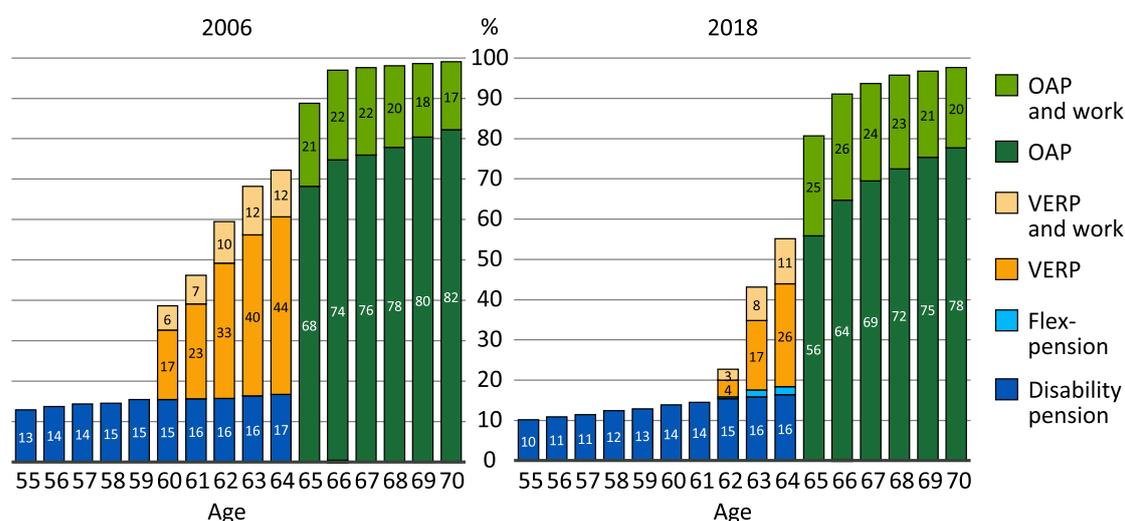
1. An incremental increase in the early retirement age (VERP) and the OAP retirement age, as well as a shortening of the VERP from 5 to 3 years. These measures were to be implemented from 2013 until 2022.
2. An indexation of the retirement age (OAP, VERP and other benefits) to follow expected future increases in longevity. The indexation mechanism meant that every five years as of 2015, Parliament votes on raising the retirement age which will apply 15 years later (first time in 2030), based on the life expectancy of a 60-year-old in 2015. It was agreed that the retirement age could increase by a maximum of 1 year every five years.

Due to point 1 the OAP retirement age will reach 67 in 2022 and the VERP retirement age will be 64 years in 2022. And because of point 2 Parliament decided in 2015 to raise the pension age in 2030 from 67 to 68 years, and again in 2020 to raise it from 68 to 69 years by 2035.

The average retirement age in Denmark already started to increase a little from around 2006 but the increase picked up speed after the increase in the PEW retirement age in 2013 and the starting increase in the OAP retirement age in 2019. Figure 6.1.3 shows the development in the retirement in Denmark from 2006 to 2018 split by age and type of retirement route.

**Figure 6.1.3**

Share of people aged 55–70 in retirement in 2006 and 2018, and the share retired and working at the same time



The share of persons who keep on working alongside receiving PEW and OAP are based on the income received the year after retirement in the year that retirement takes place. Otherwise it is based on the income in the same year.

Source: Statistics Denmark and own calculations, 2021

The chart clearly shows the effect of the reduction in the PEW scheme from five to three years from 2006 to 2018. It is also worth noting that a much lower number of people retired on PEW before the OAP retirement age at 65 in 2018.

In 2004 Deferred OAP was introduced. The purpose was to give people close to the retirement age a greater incentive to continue working after reaching the OAP retirement age. If a person chose to defer their OAP retirement age, they save the OAP payout for later, and receive a higher OAP when they retire in the future. At first, it was required that a person worked 75 per cent of a full-time job. This requirement was lowered twice, and today the required activity is only 40 per cent of a full-time job, which is one of the reasons for the increase in the share of people aged 65-70 who postpone retirement and keep on working.

In 2012 there was also a reform of the Disability Pension scheme. The intention of the reform was to tighten up the approval rate by letting everyone go through a strict resource testing process that can last for up to 5 years (while receiving a low benefit) to clarify whether the ability to work might be improved before granting the Disability Pension. At the same time, it was made almost impossible to receive the Disability Pension before the age of 40. The reform managed to lower the approval rate significantly for the years after the reform in 2012, but by 2020, the approval rate was back at about the same level as before the reform. The lower approval rate for the Disability Pension from 2013 to 2020 is the primary reason that the retirement rate of those aged 55–64 fell between 2006 and 2018.

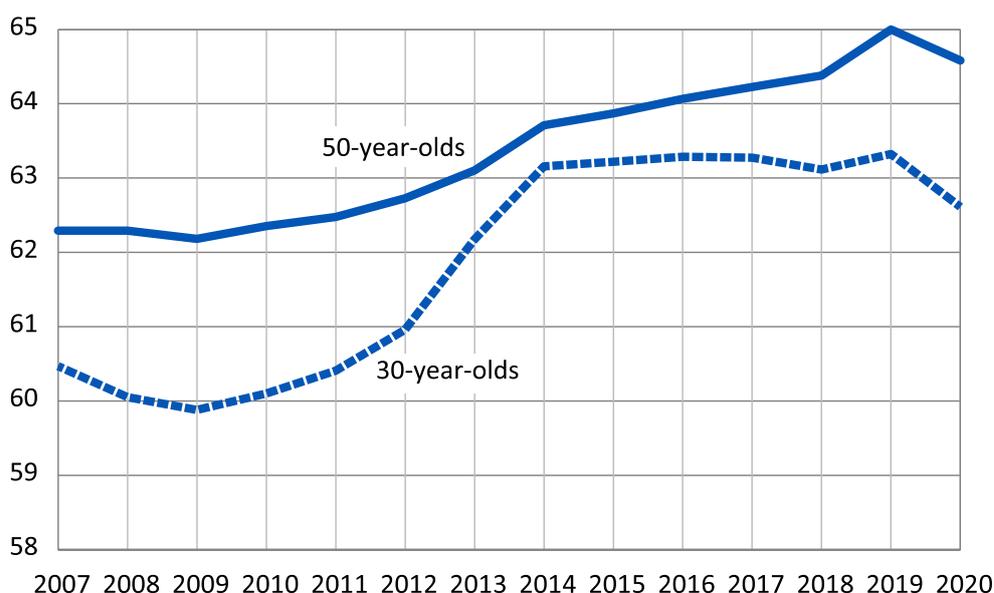
All these reforms have clearly affected the development of the expected effective retirement age. The expected effective retirement age has increased from 61.9 years (for NV1 50-year-old) in 2005 to 64.6 years in 2020. The increase started slowly in 2006 (due to a tightening of the VERP scheme), but from around 2012, it started to increase strongly, when the retirement age for VERP was increased and the access to Disability Pension was tightened. The increase is particularly high for the retirement target NV1 30-year-old from 2012, which is related to the tightening of the Disability Pension, which particularly affected people under the age of 60.

The development in the expected effective retirement age looks very similar for men and women, but men retire on average one year later than women. However, it appears that women have been affected slightly more by the early retirement reforms and the Disability Pension reform while men have been affected a little more by the increase in the OAP retirement age.

**Figure 6.1.4**

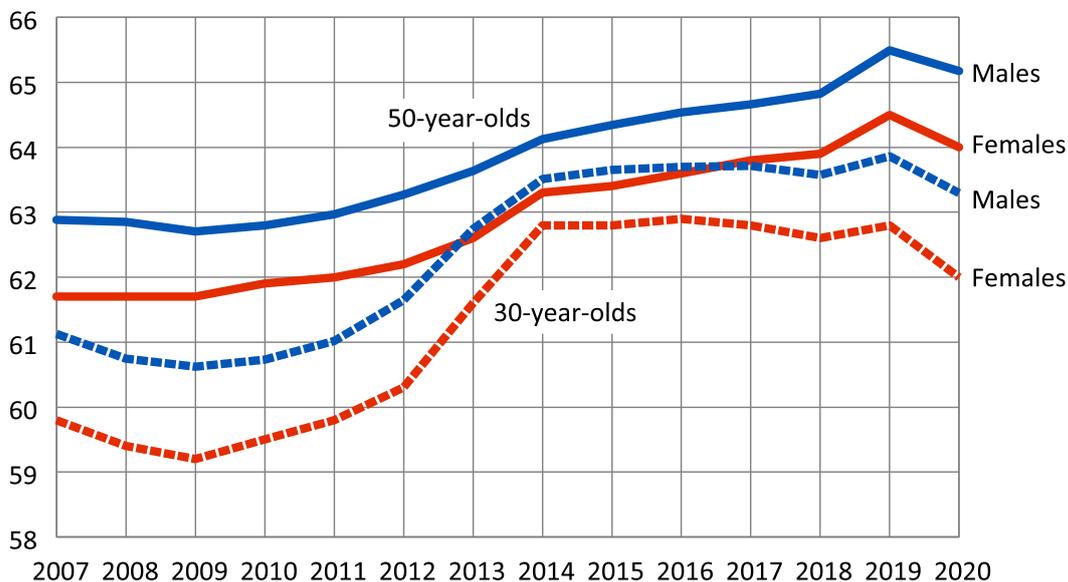
Expected effective retirement age for 30- and 50-year-olds in Denmark in 2007–2020

Age



**Figure 6.1.5**

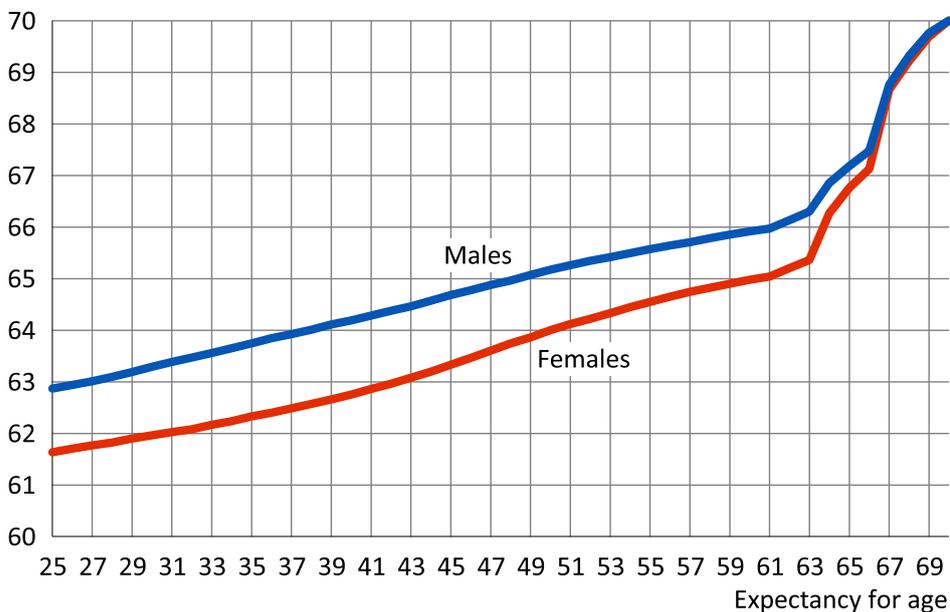
Expected effective retirement age for 30- and 50-year-olds by gender in Denmark in 2007–2020



**Figure 6.1.6**

Expected effective retirement age by gender and age in Denmark in 2020

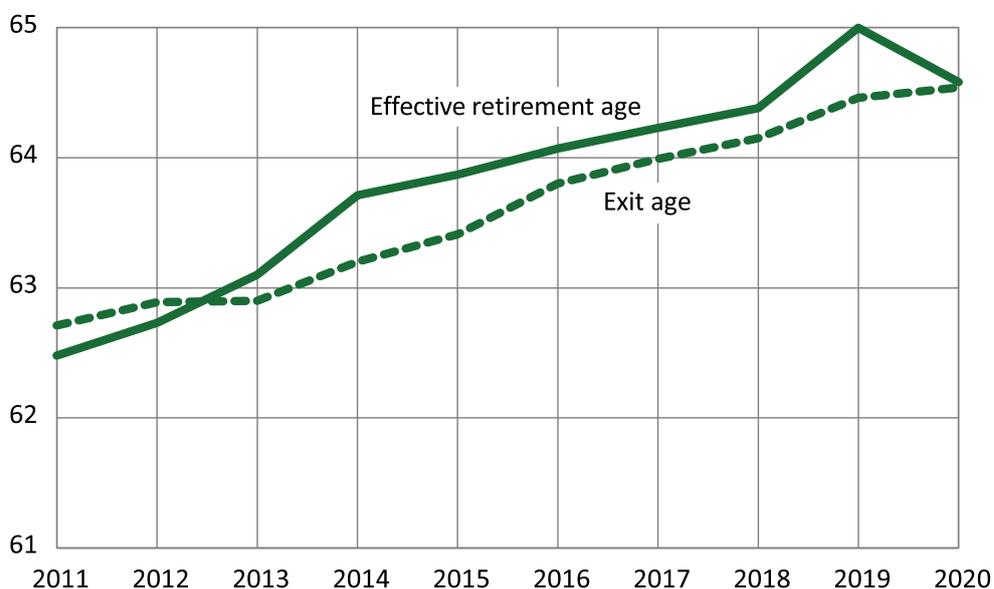
Expectancy



**Figure 6.1.7**

Expected effective retirement age and exit age for 50-year-olds in Denmark in 2011–2020

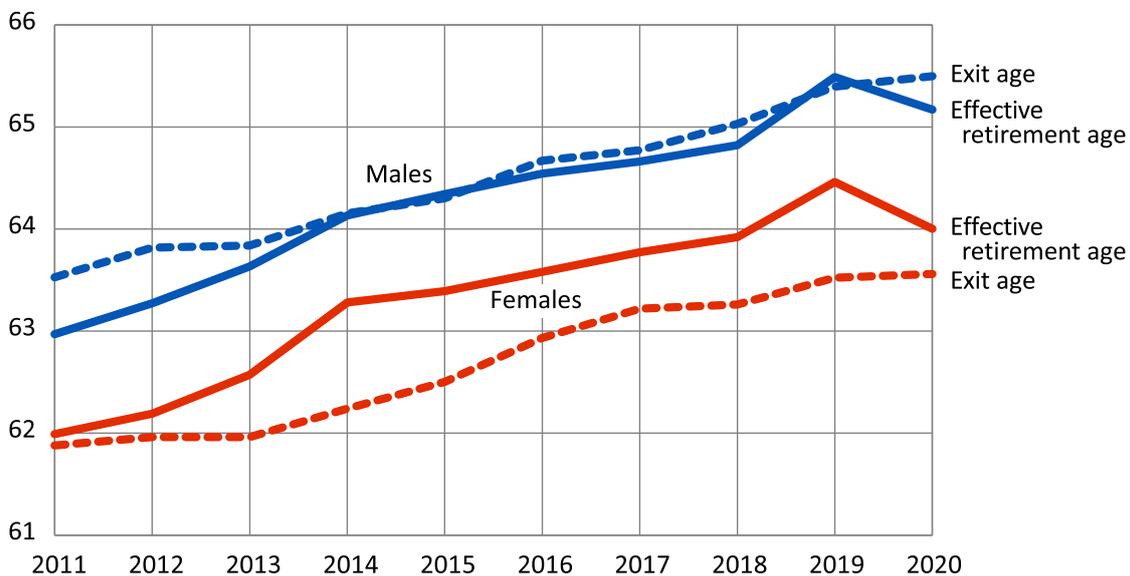
Age



**Figure 6.1.8**

Expected effective retirement age and exit age by gender for 50-year-olds in Denmark in 2011–2020

Age



## 6.2 Estonia

### Estonian pension system

The Estonian state pension system consists of two pillars. Pillar I is a pay-as-you-go defined benefit scheme and provides old-age and survivors' pensions. People who are not entitled to an employment or earnings-related pension are paid a national pension. Incapacity for work pensions have been reformed since July 2016. Disability pensions were passive benefits paid to persons with a reduced capacity for work. Currently the Unemployment Insurance Fund assesses people's ability to work and pays a workability allowance to people with partial or no capacity for work from the age of 16 until the retirement age. In addition to the workability allowance, people with a reduced capacity for work are empowered to find employment. An important part of the first pillar pension is an equal basic part which makes up about 40 per cent of the average old-age pension (€235 in 2021). There is no ceiling on Pillar I contributions or pension payments.

Pillar II is a pre-financed defined contribution scheme which, as of 2021, is for those entering the labour market for the first time with automatic enrolment. From 2021 onward, everyone can join or leave Pillar II at any time and with a freely chosen method of payments. If a person leaves Pillar II before the retirement age of Pillar II, they must pay higher income tax.

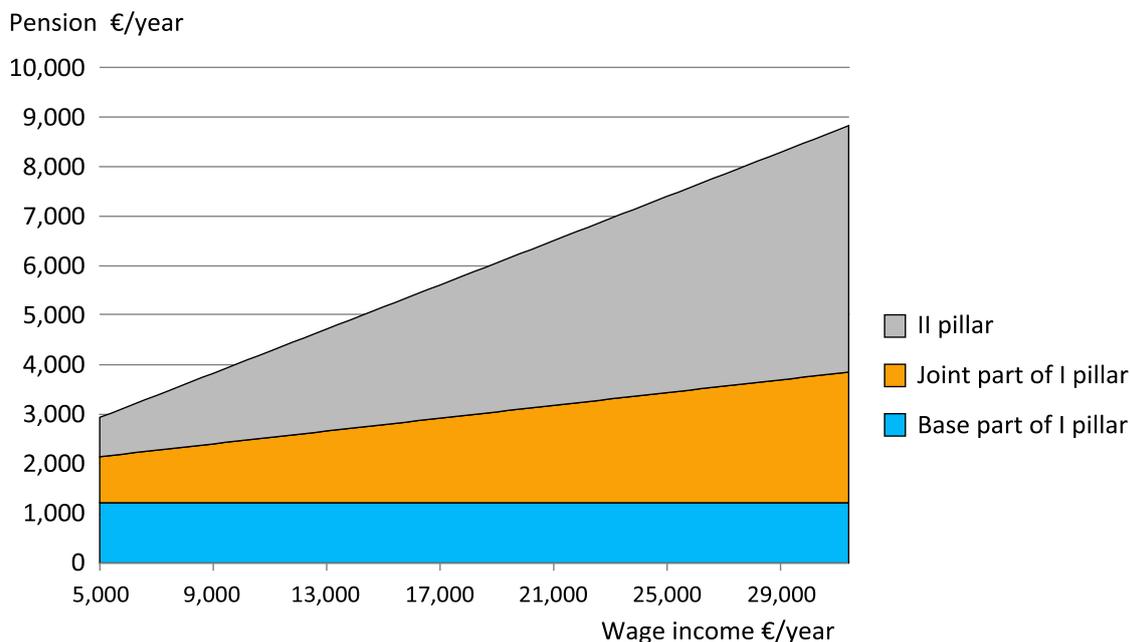
16 per cent of the social tax paid by employers goes to the first pillar and 4 per cent to the second pillar. Employees pay another 2 per cent to the second pillar. In addition to the two state pension pillars, Estonia also has a third pension pillar which is a private pension with tax benefits.

Despite the tax benefits, Pillar III has been little used, but in 2020, the number of subscribers increased significantly due to an amendment to the law according to which people who joined Pillar III before 2021 can withdraw money at a more favourable tax rate as of age 55. For those who join later, this age is equated to the beginning of the flexible retirement age, which is 60 years. In 2020, 167,200 people had joined the third pillar.

People who are not entitled to a first pillar pension are paid the national pension (€255 in 2021). People of retirement age are paid the national pension if they have lived in Estonia for at least five years immediately before claiming a pension. The amount of the national pension is similar to the basic part of the old-age pension of the first pillar - it covers only the minimum necessities. Less than 1 per cent of the Estonian population receives the national pension.

**Figure 6.2.1**

Structure of the Estonian old-age pension system



Note: The calculation is for a person born in 2000 who spent 50 years on the labour market contributing the average contribution rate in their income bracket and retired at age 70 in 2070. The salary of an average earner is about 11,000 euros and their old-age pension from PAYG first pillar and DC II second pillar pension is about €4,280, the replacement rate being around 39 per cent.

Source: Ministry of Finance, 2022

The retirement age of the first pension pillar is 65 years, but one can retire flexibly at the age of 60 and at any time after the retirement age. The so-called retirement age of the second pillar, when tax benefits apply to the payments, is 60 years. In Pillar I, there are various options for early retirement: an old-age pension under favourable conditions for raising children one to five years before the retirement age; an old-age pension under favourable conditions for hazardous or difficult work for up to 10 years before the retirement age; a superannuated pension up to 27 years before the retirement age (e.g., ballerinas). Special pensions for certain civil servants (e.g., the police and the Defence Forces) have been abolished for those who have taken office since 2020, and special pensions for those who have taken office before 2020 will continue to be paid for up to 15 years before the retirement age.

Until 2021 it was possible to retire from Pillar I three years before the retirement age and at any time after the retirement age. The early retirement pension was reduced by 0.4 per cent for each month retired early, and the deferred pension was increased by 0.9 per cent for each deferred month. The length of service requirement for both early and deferred old-age pensions was the same as for ordinary old-age pensions – 15 years. From 2021, the flexible pension option is available for up to five years before the retirement age or at any time after the retirement age.

Early retirement has been subject to service length restrictions since 2021, as it prevents people from retiring with too low pensions. If the general old-age pension length of service requirement is 15 years, one can retire up to one year before the retirement age with at least 20 years of service, up to two years before 25 years of service, up to three years before 30 years of service, up to four years before 35 years of service, and up to five years before 40 years of service. To give the transition time from the early retirement pension requirement (15 service years) to the flexible retirement pension requirement, the length of service requirement will apply to early retirement – 16 years in 2021, 17 years in 2022, 18 years in 2023, 19 years in 2024 and 20 years in 2025. Until the end of 2025, people will be able to use the opportunity to use the early retirement scheme. After this deadline, only the flexible retirement pension option can be used. Early retirement pensions granted before 2021 will continue to be paid. In case of employment before the retirement age, the early retirement pension will still not be paid. In the case of a flexible old-age pension, the pension is also paid in the event of employment.

In the case of a flexible pension, actuarial neutrality is applied, that is, regardless of whether a person retires sooner or later, they will theoretically receive the same amount as a total pension. Pension reductions and increases depend on the time of retirement, Statistics Estonia's life table and the interest rate presented on the yield curve of the current values of euro area central government debt securities published by the European Central Bank. The data of the life table and interest rates used in the calculation of the multiplier for increasing and decreasing the old-age pension are updated once a year on 1 January. For the first time in Estonia, a flexible pension makes it possible to receive a pension at half the rate or to have the payment of a pension suspended. Half of the pension that is not withdrawn or pension that is completely suspended is increased by the multiplier for the suspended time. A person may have their old-age pension increased (from half to full size) or decreased (from full to half size) or suspended once a month, that is, 12 times a calendar year. The amount of the pension is changed at the beginning of the month because the pensions are paid to the person for the same month in the current month.

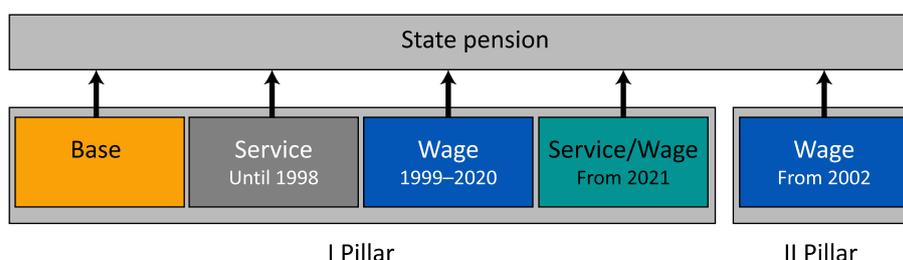
In Estonia, pensions have been earnings-related since 1996. Regardless of the workload or the amount of salary, a person has always been entitled to a state pension in parallel. Only an early retirement pension is not paid in the case of employment until the person reaches the retirement age. In 2020, almost a quarter of pensioners (23 %), worked.

The current first pension pillar dates from 1999. The retirement age for men was 63 at that time, and the retirement age for women gradually increased to 63 by 2016. As of 2017, the retirement age for both men and women will increase again and will be 65 as of 2026. As of 2027, the retirement age will be linked to the change in life expectancy and will increase or decrease by a maximum of three months per year, respectively. The change in the retirement age is known two years in advance. The change in the retirement age is calculated based on the life expectancy of 65-year-olds published by Statistics Estonia. It is not based on the life expectancy of one year but on an average of five years.

Up to 2021, the pension formula of the first pillar consisted of three parts: an equal basic part enabling a minimum subsistence level for all, a service part, and an insurance part. The service part was collected until the end of 1998 and the insurance part between 1999 to 2020. As of 2021, a joint part consisting of insurance components and solidary components is collected<sup>7</sup>.

**Figure 6.2.2**

State pension components



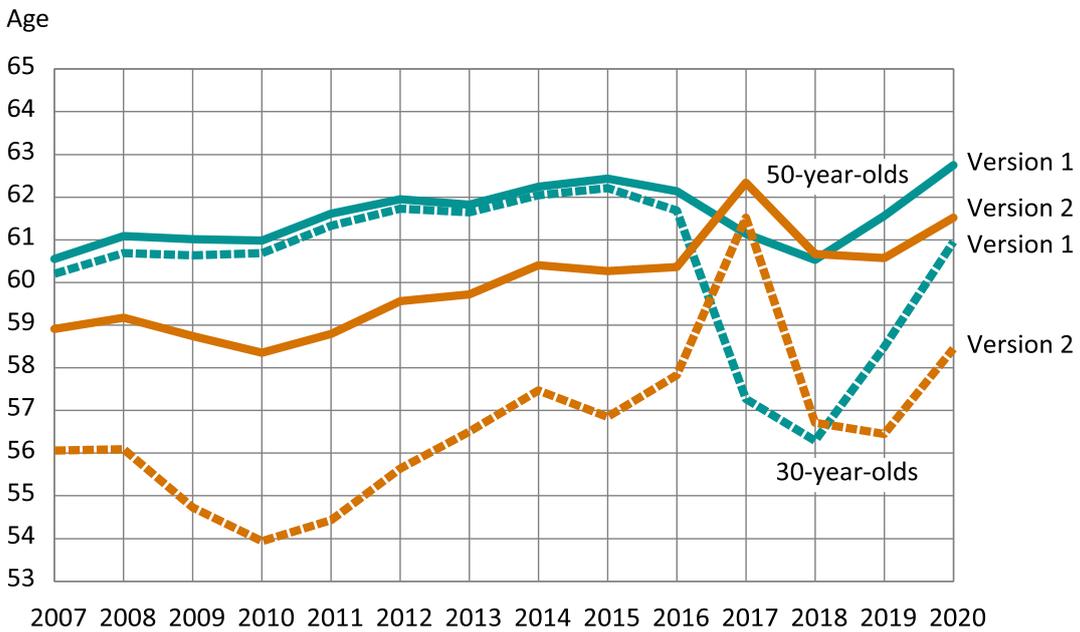
As the flexible pension, which allows the recipient to receive pension payments in half, only came into force at the beginning of 2021, we calculated the effective retirement age only for version 1, that is, for people who have retired, except for those who have retired only partially.

The calculation of the effective retirement age (including partial pensions) considers old-age pensions, early old-age pensions, old-age pensions under favourable conditions, superannuated pensions and special pensions for civil servants, national pension for persons in old age, disability pensions and work capability allowances. Recipients of survivors' pensions are out of scope. In 2020, 97 per cent of the recipients of a survivor's pension were under 24 years of age. The calculation of the effective retirement age (not including partial pensions) considers old-age pensions, early old-age pensions, old-age pensions under favourable conditions, national pension for persons in old age, disability pensions for 100 per cent disability and work capability allowances for persons with no working ability.

<sup>7</sup> An insurance component was introduced into the pension formula from 1999 because pensions were desired to become more wage dependent. However, from 2007 onward it was recognized that wage-dependent pension did not provide adequate pensions for low-wage earners, and so the basic part was gradually increased. However, as the increase in the base part was not enough, a fourth part to pillar I pensions was added since 2021. This part of pensions depends, in part, on the salary amount and, in part, on the time worked.

**Figure 6.2.3**

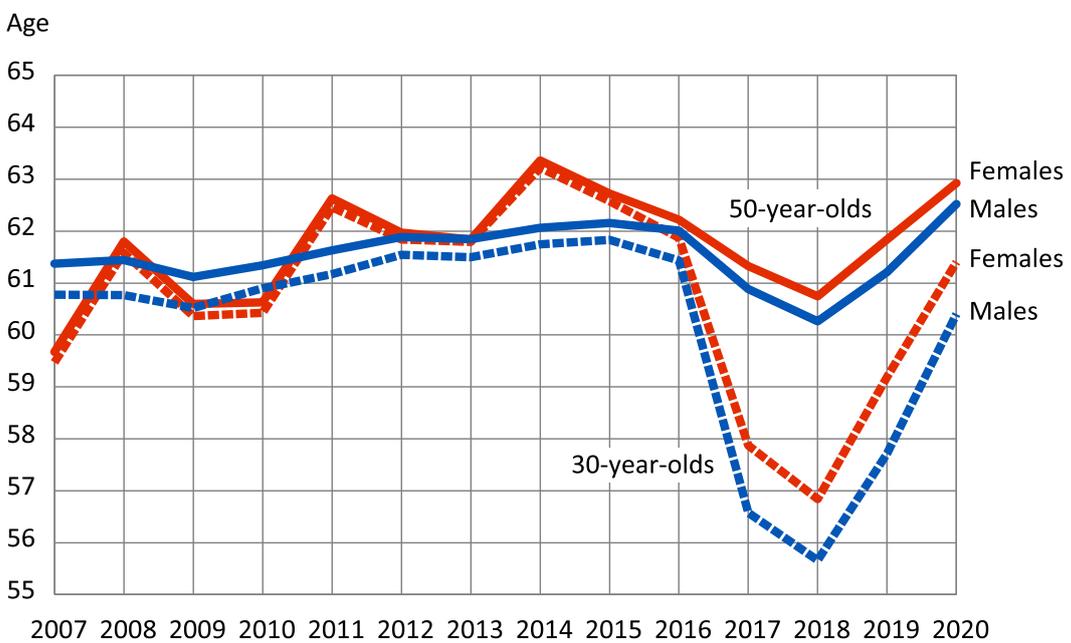
Expected effective retirement age for 30- and 50-year-olds in Estonia in 2007–2020



Version 1: All pensions, excluding the partial pension  
 Version 2: All pensions, including the partial pension

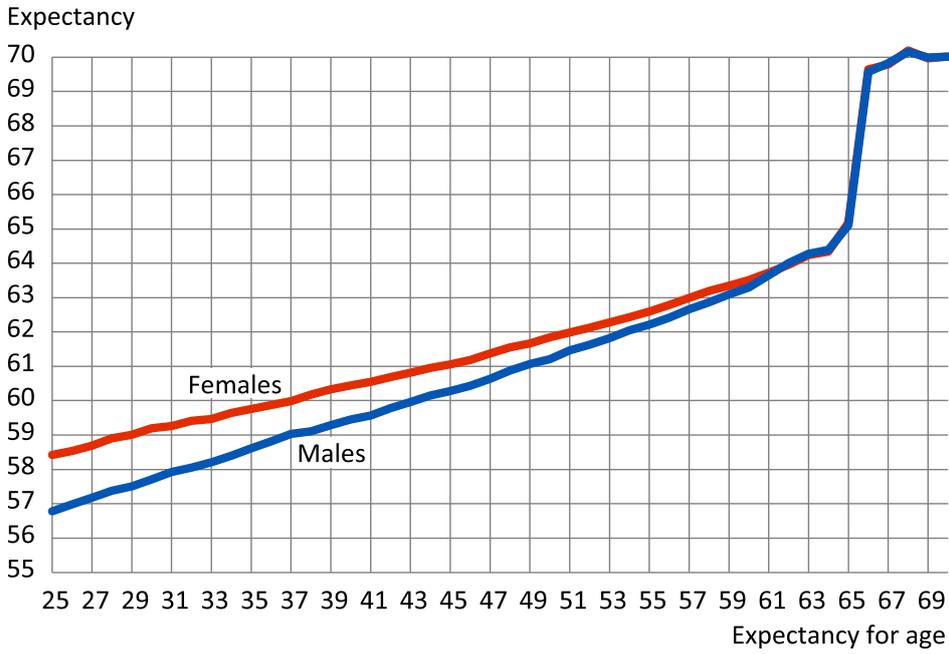
**Figure 6.2.4**

Expected effective retirement age for 30- and 50-year-olds by gender in Estonia in 2007–2020



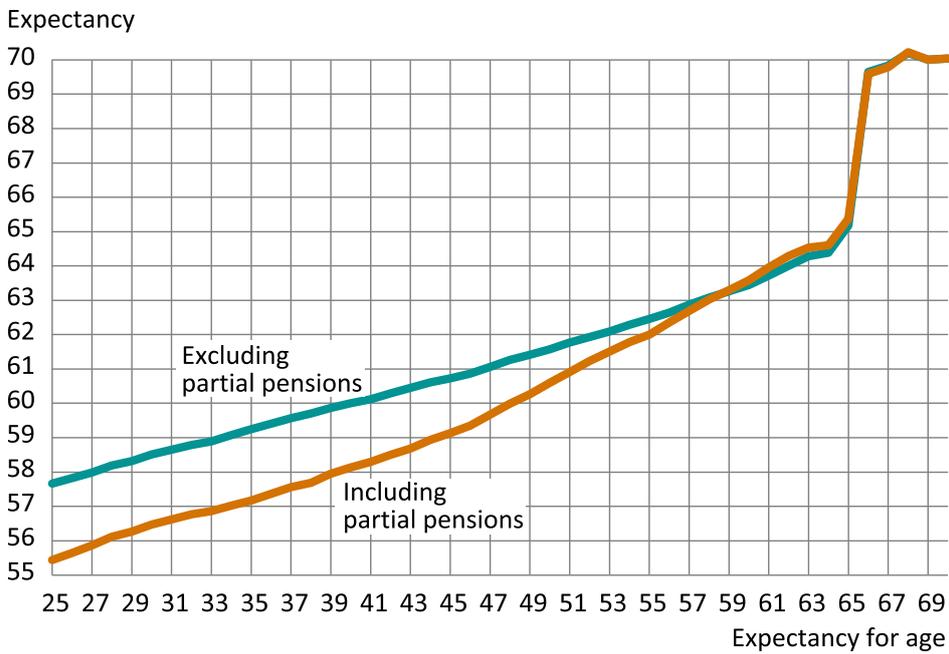
**Figure 6.2.5**

Expected effective retirement age by gender and age in Estonia in 2019



**Figure 6.2.6**

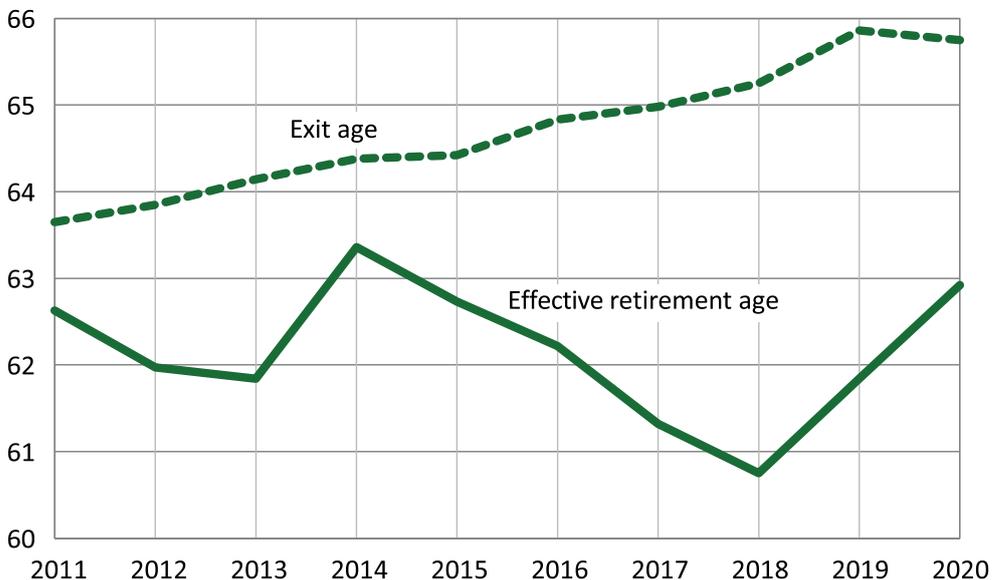
The role of partial pensions for the calculation of the expected effective retirement age by age in Estonia in 2019



**Figure 6.2.7**

Expected effective retirement age and exit age for 50-year-olds in Estonia in 2011–2020

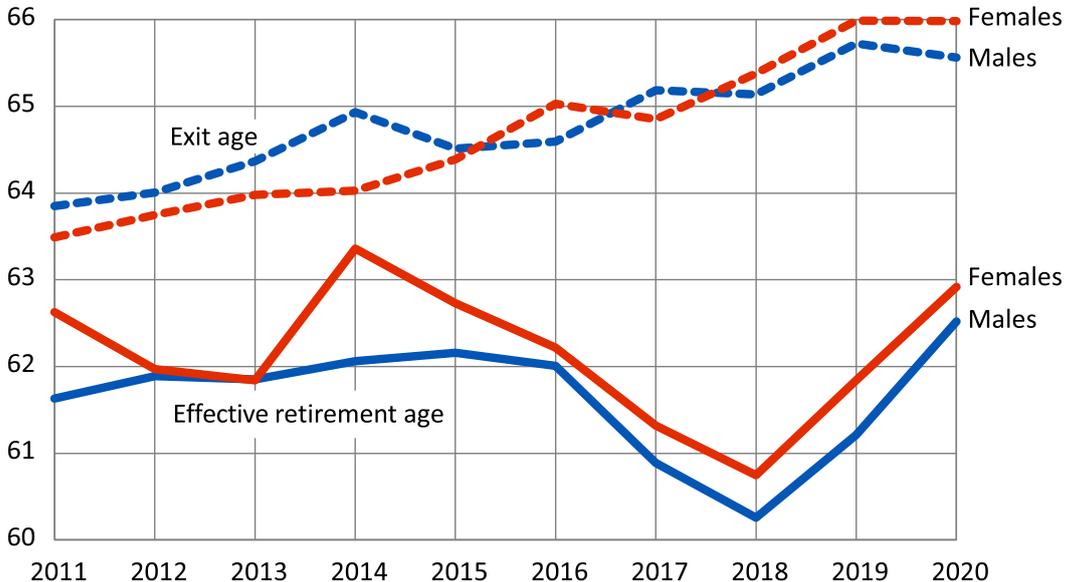
Age



**Figure 6.2.8**

Expected effective retirement age and exit age by gender for 50-year-olds in Estonia in 2011–2020

Age



## 6.3 Finland

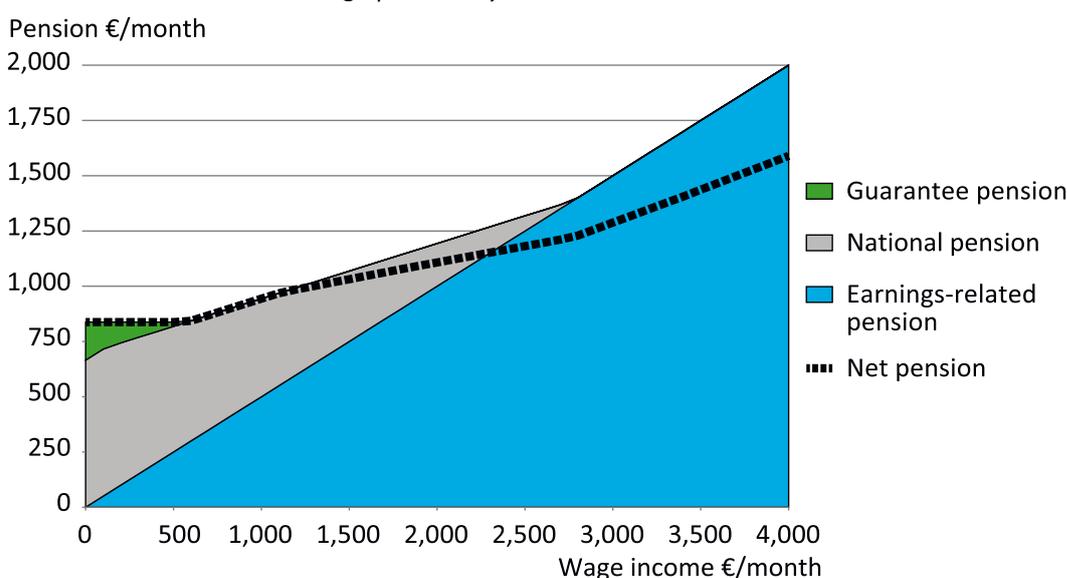
### Finnish pension system

Finnish pension provision consists mainly of the earnings-related pension, which is based on employment, and the national and guarantee pensions aiming at ensuring a minimum level of protection for elderly persons living in Finland who fulfil certain requirements for residence. In Finland, occupational pensions and pension provision based on personal pension insurance are not common compared to Nordic or other European countries in general. One important reason for this is that, in the statutory earnings-related pension scheme, there is no upper limit for the pension or for the pensionable earnings.

There is a minimum pension level. If a person receives no earnings-related pension or if the earnings-related pension is small, they receive a national and a guarantee pension. The national pension is tested against the earnings-related pension with a 50 per cent withdrawal, whereas the guarantee pension is tested against all pension income with a 100 per cent withdrawal.

**Figure 6.3.1**

Structure of the Finnish old-age pension system



The current rules of the earnings-related pension are the result of major pension reforms in 2005 and 2017 which are the largest pension reforms since the initial years of the scheme (1962).

The main changes in the 2005 reform were counting earnings of the whole working history in the pensionable wage, introducing the flexible retirement age, increasing the age limits for early pensions, abolishing the unemployment pension and the individual early retirement pension as well as taking into account the increase in life expectancy in the pension amount through the life expectancy coefficient. The life expectancy coefficient was applied for the first time in 2010.

## Old-age pension

The age of eligibility for the old-age pension is rising progressively by 3 months a year from 63 to 65 years for persons born in 1955 and later. For persons born in 1965 and later, the threshold for the old-age pension will be tied to life expectancy. The first increase of no more than two months to the 65-year retirement age for persons born in 1965 will be endorsed in 2027 and take effect in 2030. The upper age limit for insurance obligation and for pension accrual will also rise, but in full years. In the earnings-related pension scheme, the retirement age is flexible between the ages of 63 and 68; in the national pension scheme, it is 65 years.

## Early retirement pensions

In connection with the 2005 pension reform, the possibility to take out the old-age pension early at the age of 62 was abolished in both the earnings-related and the national pension scheme.

The unemployment pension was also abolished, and this benefit has not been granted after the transition period ended in 2011. The unemployment pension was an important retirement pathway, and this pension was awarded to unemployed persons who had reached the age of 60. At the beginning of the 2000s, every fourth new retiree still retired on the unemployment pension.

Long-term unemployed individuals born before 1958 and entitled to additional days of unemployment benefit can claim an earnings-related old-age pension at age 62. Persons born in 1958 and later can claim an earnings-related old-age pension when they reach the retirement age for their age group.

## Partial pension

It is possible to take payment of 25 or 50 per cent of the accrued pension in the form of a partial old-age pension. The amount of the partial old-age pension is calculated based on the pension rights accrued by the end of the year preceding the year in which the pension commences.

Eligibility for a partial old-age pension starts at age 61; there is no upper age limit. The age limit will rise to 62 years for persons born in 1964. The age limit will subsequently be tied to changes in life expectancy and will rise along with the old-age retirement age. The portion of pension taken out early is subject to an early retirement reduction, which is 0.4 per cent for each month that the pension is taken early. Persons who take payment of a partial old-age pension starting from the calendar month after they have reached their retirement age will receive an increase for deferred retirement (0.4% for each deferred month).

Part-time pensions have not been granted since the beginning of 2017. Pensions granted before the scheme was discontinued at the start of 2017 are still being paid according to the rules in force before 2017.

### Disability pensions

Disability benefits under the earnings-related pension scheme are the disability pension, the partial disability pension, the cash rehabilitation benefit and the partial cash rehabilitation benefit.

The projected pension component is calculated from the beginning of the year of the pension contingency to the end of the month in which the individual reaches their retirement age. While drawing a pension, disability pension recipients may earn up to 40 per cent, and partial disability pension recipients up to 60 per cent of their average pre-disability earnings.

### Years-of-service pension

The years-of-service pension can be claimed no earlier than at age 63. The age limit is tied to life expectancy as of the 1965 birth cohort. For this and subsequent cohorts the age limit is always two years lower than the full retirement age. In 2021 a years-of-service pension can be claimed by the 1958 birth cohort, whose retirement age is 64 years. The maximum duration of payment for years-of-service pensions for that cohort is thus one year before the pension is converted to an old-age pension. The first years-of-service pensions were granted in 2018.

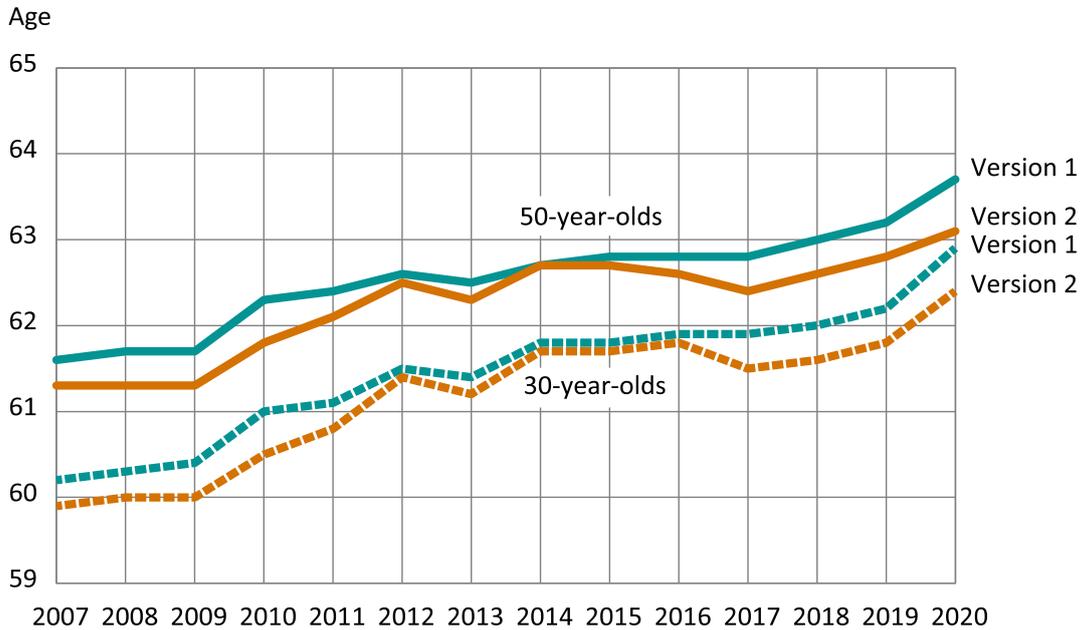
### Results

The expected effective retirement age in Finland has increased since 2007. The biggest increase occurred between 2009 and 2011 and again after year 2018. These increases are the result of the pension reforms in 2005 and 2017.

In the 2017 reform, the part-time pension was replaced by a partial old-age pension. It has been quite popular, and many take it immediately after reaching the minimum age of 61 although they continue working as before. If the partial old-age pension was included in calculations, the effective retirement age would be half a year lower in comparison to a basic version excluding partial pensions.

**Figure 6.3.2**

Expected effective retirement age for 30- and 50-year-olds in Finland in 2007–2020

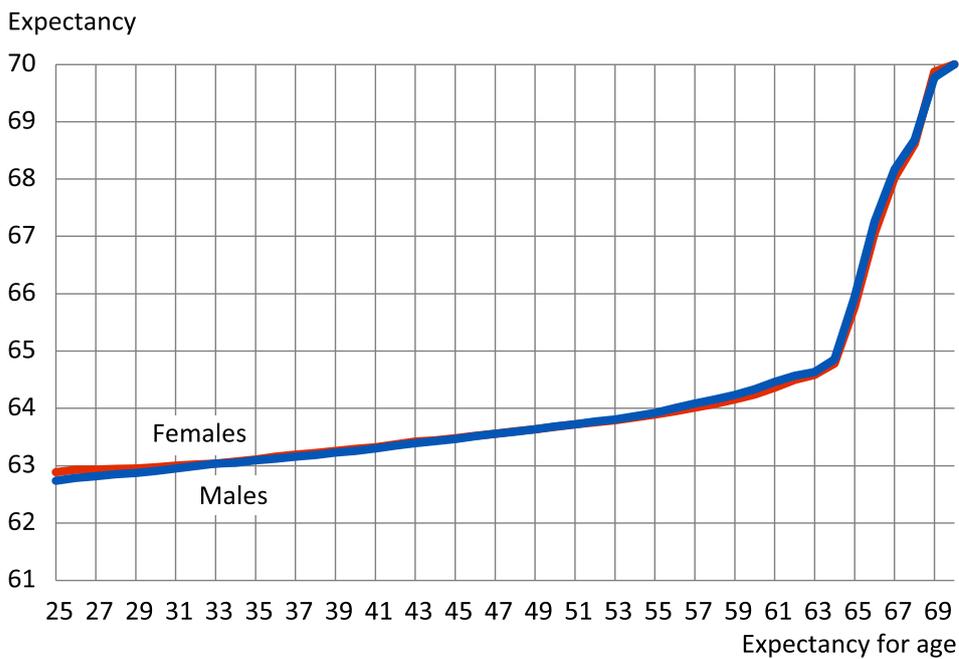


Version 1: All pensions, excluding the partial pension  
 Version 2: All pensions, including the partial pension

Nowadays there are no gender gaps in the expected effective retirement age. Before 2013, the expected effective retirement age of 30-year-old women in particular was about half a year higher than that of men.

**Figure 6.3.3**

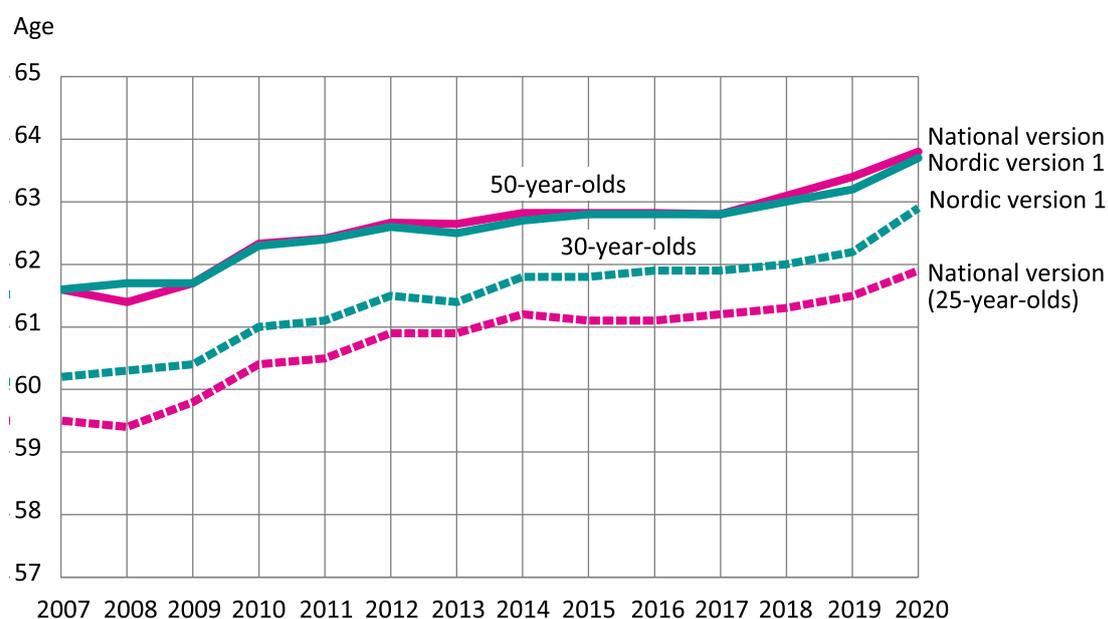
Expected effective retirement age by gender and age in Finland in 2020



The difference between the national and the Nordic version of the expected effective retirement age is small if we look at the 50-year-olds' expectancy. In contrast, when comparing the expectancy of the younger ones, the difference has been about one year in the last few years. There are several reasons for this. The national expectancy is calculated for 25-year-olds and the Nordic expectancy for 30-year-olds. In addition, the Nordic expectation is based on different data (where working alongside a pension can cover the pension). Many young retirees also do work, if it is at all possible. At any rate, both expectancies have increased in phase.

**Figure 6.3.4**

Difference between the national and the Nordic version of the expected effective retirement age in Finland in 2006–2020

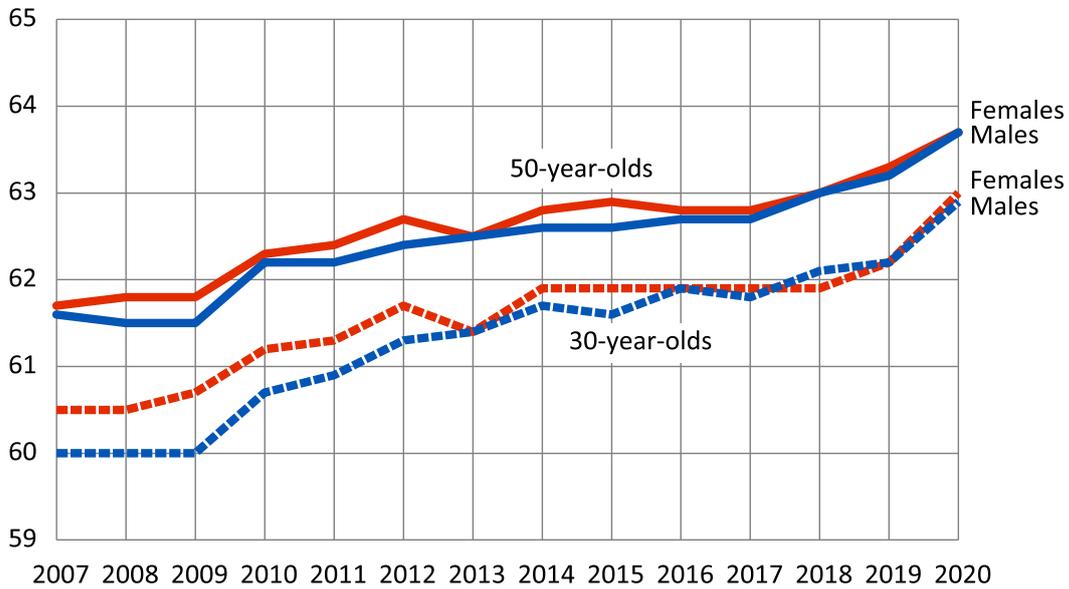


Nordic version 1: not include partial old-age pensions  
 National version: not include partial old-age pensions

**Figure 6.3.5**

Expected effective retirement age for 30- and 50-year-olds by gender in Finland in 2007–2020

Age

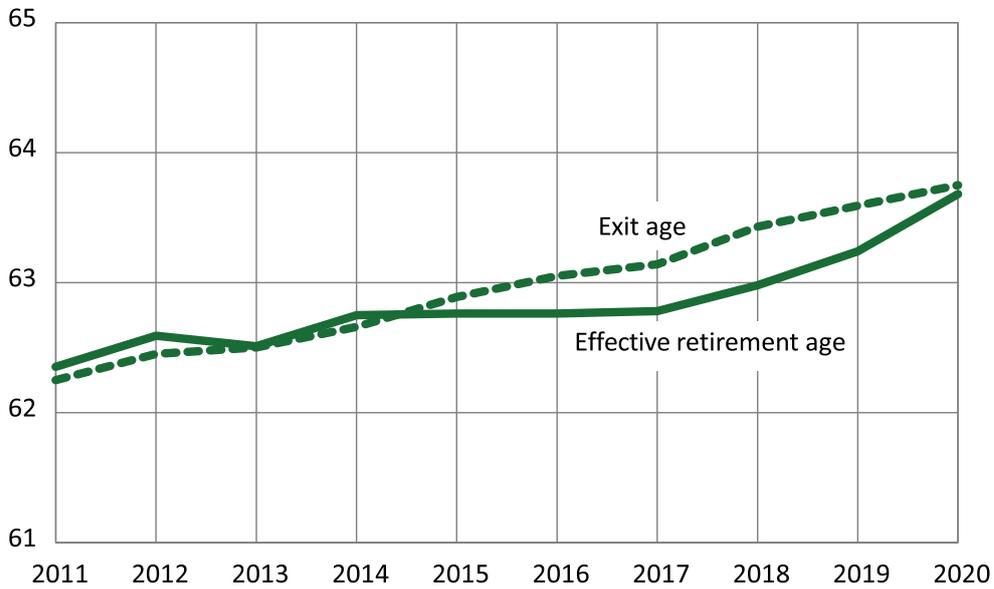
**Exit age and expected effective retirement age**

Both indicators have increased by the same amount over the reference period. The exit age has increased a little more steadily. However, the difference between men and women is significant. For men, the exit age has always been almost half a year higher than the expectancy. In contrast, for women, the difference has varied slightly, but for the most part, the exit age has been lower than the expectancy. In 2020, the exit age was 0.4 years below the expectancy.

**Figure 6.3.6**

Expected effective retirement age and exit age for 50-year-olds in Finland in 2011–2020

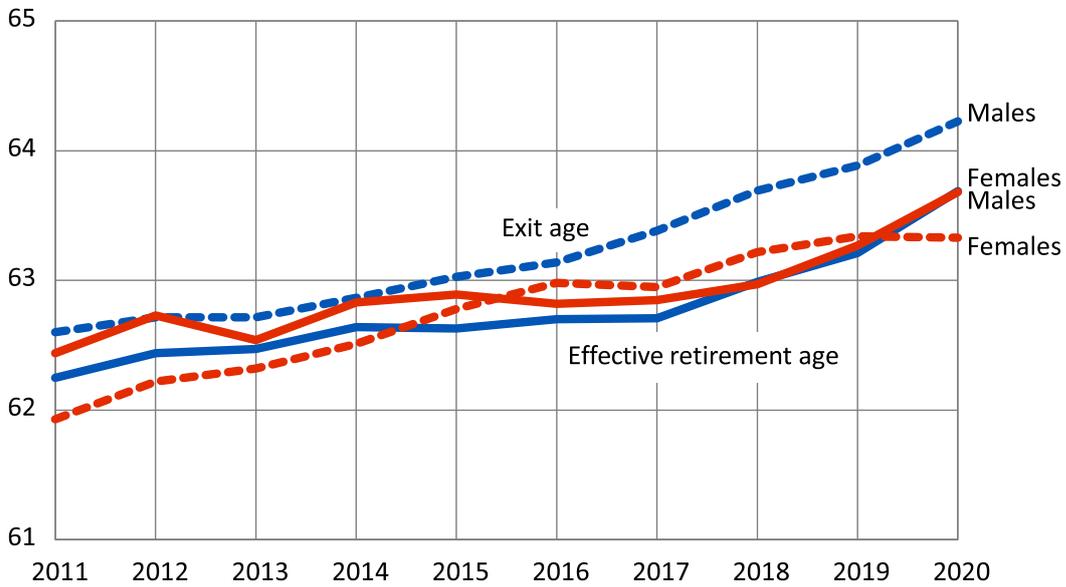
Age



**Figure 6.3.7**

Expected effective retirement age and exit age by gender for 50-year-olds in Finland in 2011–2020

Age



## 6.4 Iceland

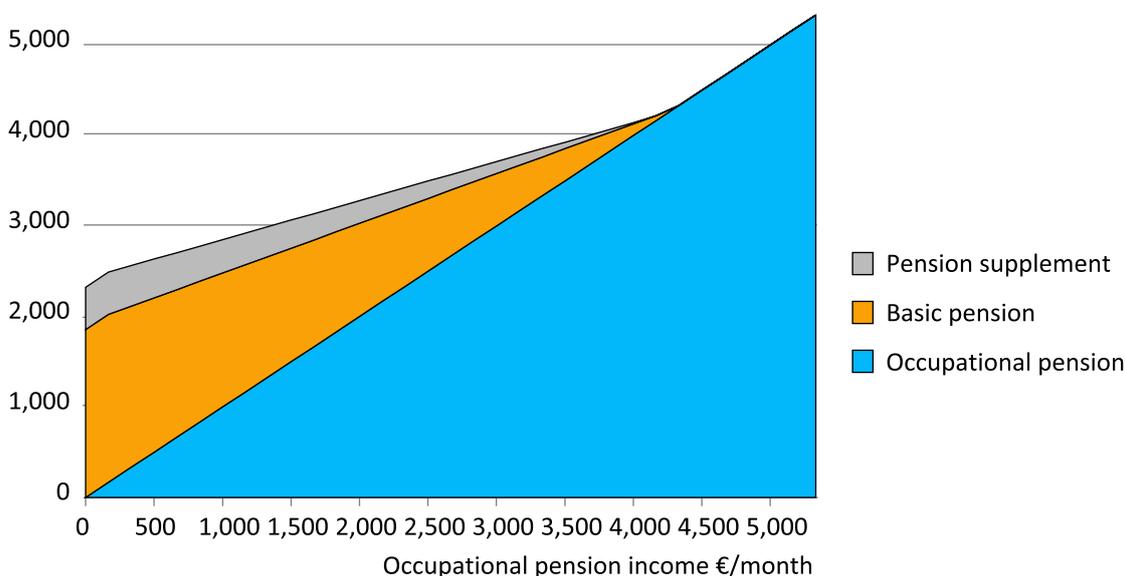
### Icelandic pension system

The Icelandic pension system can be described using the three-pillar classification. The first pillar is based on a tax-financed compulsory public pension (social security benefits). The second pillar consists of mandatory occupational pension funds which are the dominant feature of the system<sup>8</sup>. The occupational pension funds are based on the membership of all employed and self-employed persons of the age 16 to 70. The third pillar pension is based on voluntary individual pension savings. In addition to the mandatory earnings-related pension schemes there have been scarcely any separate voluntary supplementary pension schemes.

**Figure 6.4.1**

Structure of the Icelandic old-age pension system

Total pension €/month



### First Pillar – Social Security Pension

The social security pension is paid as basic pension and supplementary additions to single or low-income individuals. The state pension system is a tax-financed and a means-tested scheme. Entitlement to age pension and disability pension under the general system is linked to residence in Iceland. Full entitlement to pension requires a total residence of at least 40 years between the ages 16 to 67 years. This residence need not be continuous. If the period of residence in Iceland is less than 40 years, the entitlement is calculated proportionally based on the residence period.

<sup>8</sup> In Iceland, both public pension and mandatory occupational pension (first and second pillar) fall under the scope of Regulation (EC) No 883/2004 on the coordination of social security systems.

### Old-age pension

Individuals usually start drawing a pension at age 67 years. However, a person can apply for old-age pension from the age of 65 under certain conditions, but this will mean a permanent reduction of the pension payment. Moreover, a person can receive half of his old-age pension and at the same time half a pension from his employment pension fund. It is also possible to postpone drawing a pension until the age of 80 in which case payments increase after the age of 67 according to an actuarial schedule.

Old-age pension is income-tested. All taxable income affects the calculation of the benefits, including income from occupational pension funds, employment, and property. However, the effect is moderated using various income thresholds depending on the type of income. Income from private pension and social assistance is excluded.

In addition to old-age pension, a person may be entitled to additional payments and supplement, such as a household allowance for those who live alone or car allowance for mobility impaired persons. Supplementary payments are also made for special expenses, incl. drug and medical expenses, home-care nursing and rent allowance.

### Disability pension

Persons between the ages of 18 and 67 years can apply to the Social Insurance Administration for disability assessment, i.e. an assessment of their ability following illness or due to handicap.

Entitlement is based on residence in Iceland from 16-67 years of age. The applicant must have lived in Iceland for at least the three years prior to the date of application. Full disability payment is based on 40 years of residence in Iceland or in proportion to the residence period.

An application must be accompanied by a medical certificate and completed self-assessment questionnaire on the person's state of health. A further medical examination of the applicants' functional impairments is usually conducted to determine his right to pension. Disability assessment generally applies for a limited period. Application can be made for an extension when the period expires.

The pension consists of a basic disability pension, age-related invalidity pension supplement and income supplement.

Disability pension is income-tested. All taxable income affects the calculation of the benefits, although to a varying degree. This includes income from occupational pension funds, private pension, employment, and property. Income from social assistance is excluded.

### Rehabilitation pension

A rehabilitation pension is intended for persons who are unable to work due to illness or injury and are undergoing rehabilitation with the aim of returning to the labour

market. Various rehabilitation options are offered by local authorities' social services throughout Iceland and at rehabilitation centres.

The principal condition for granting a rehabilitation pension is linked to active participation in a rehabilitation programme aimed at regaining his capacity to work.

A person applying for a rehabilitation pension must:

- have been domiciled in Iceland for the last 6 months before making an application, or for 3 years if his capacity for work was impaired when arriving initially in Iceland,
- be between 18–67 years of age,
- have exhausted any entitlement to sick leave payments from his employer and sickness or accident benefits paid by unions and/or insurance providers, and
- not be entitled to unemployment benefits.

The Social Insurance Administration administrates the rehabilitation pension system and works in close cooperation with the various rehabilitation centres.

### **Second pillar – occupational pensions**

Earnings-related pension provision is arranged in administratively independent pension funds operated mainly by the labour market partners. The Pension Act No. 129/1997 provides for a mandatory affiliation to the pension fund provided for in the applicable collective agreement, for all workers between the ages of 16 and 70. The membership of a workers' pension fund is determined by the collective agreement on which the basic wages for each worker are determined. Pension fund members can apply for old-age pensions, disability pensions, spouses' pensions, and children's pensions.

In the earnings-related pension scheme the retirement age may vary from one pension fund to another between the ages of 65 to 70, but it is most common to retire at age 67. Retirement can be postponed until age 80, in which case payments increase after age 67 according to an actuarial schedule. The pension may also be taken early from the age of 65 with an actuarial reduction. Sailors who have been working in this occupation for at least 25 years can retire at age 60.

The earnings-related pension benefits may vary between pension funds, as only the minimum level of pension provision has been determined by law. The law requires schemes to target a replacement rate of 56 per cent after 40 years of paid contributions. Pension rights are accrued without a ceiling. Pension payments are taxed as wage income.

The minimum contribution is 12%, of which 4% are deducted from the worker's wages and 8% which is added by the employer. The workers' 4% contribution is deducted from his income before taxes are levied. In addition, collective agreements may require additional contributions. Most employment contracts mandate a 15.5 per cent contribution, of which the employer pays 11.5 per cent.

Total contributions are paid into two kinds of accounts – defined benefit and defined contribution. Each of Iceland’s authorised pension funds decides individually how to allocate contributions between the two schemes, on the condition that the defined benefit account provides at least the minimum benefit level on retirement.

### **Third pillar – Voluntary private pension**

Supplementary pension saving is a unilateral saving scheme, whereby wage earners can save a portion of their wages by depositing them into a special account, and then receiving a reciprocal employer's contribution. All employed and self-employed people aged 16 to 70 may be covered by the system.

The payment of a supplementary pension can start at the age of 60 or later, and it is paid out in equal instalments until the age of 67, or even later. If the account holder has a supplementary pension savings deposit after the age of 67 years, he or she may decide to have the remainder paid out in equal instalments or in a lump sum.

Supplementary savings may be withdrawn after the age of 60 because of disability and will be paid to the heirs upon death. Income tax is levied on paid-out, supplementary pension savings.

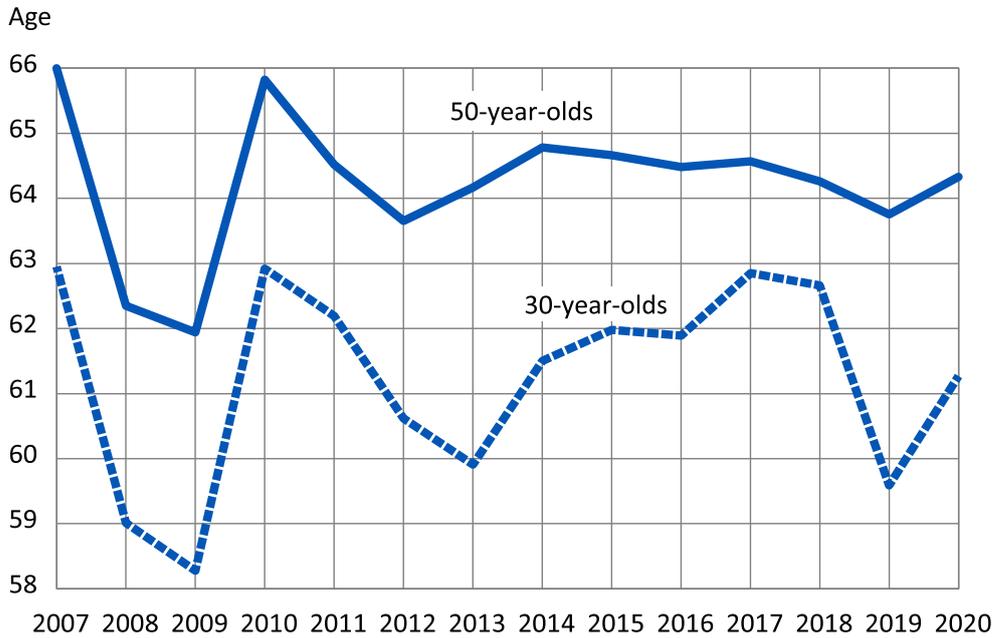
Supplementary pension saving come with tax incentives. Under the current system, employees can deduct from their taxable income a contribution to authorised individual pension schemes of up to 4 per cent of wages. Their employer will in turn match the employee’s contribution up to 2 per cent of wages, which is financed by lowering the social security tax to an equal degree.

### **Pensions covered in the study**

The figures in the report include pensions paid from the national pension scheme and from the mandatory supplementary pension scheme.

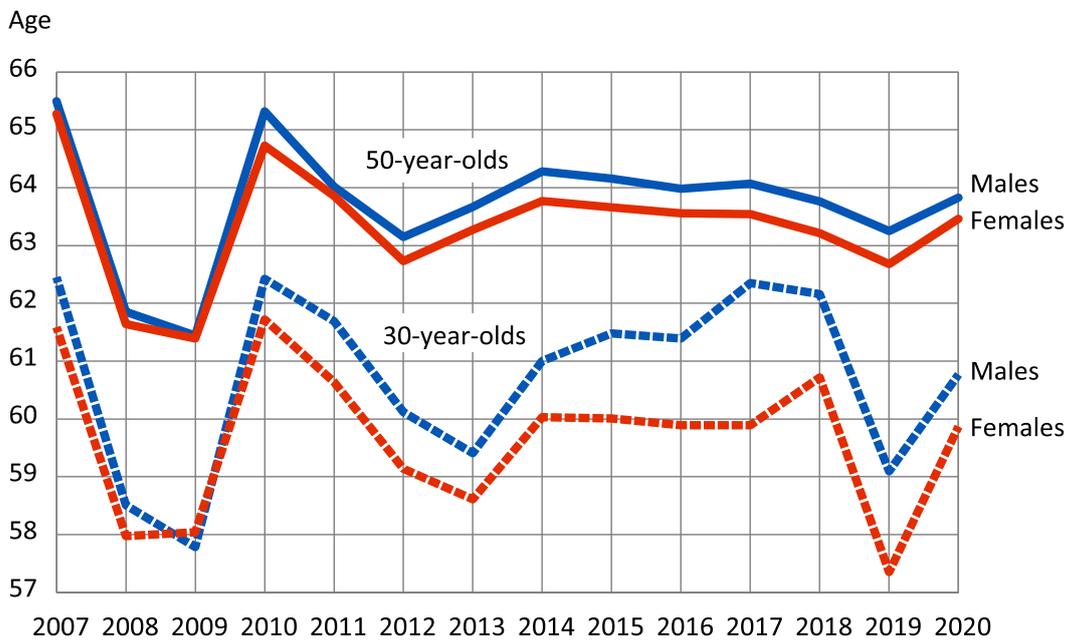
**Figure 6.4.2**

Expected effective retirement age for 30- and 50-year-olds in Iceland in 2007–2020



**Figure 6.4.3**

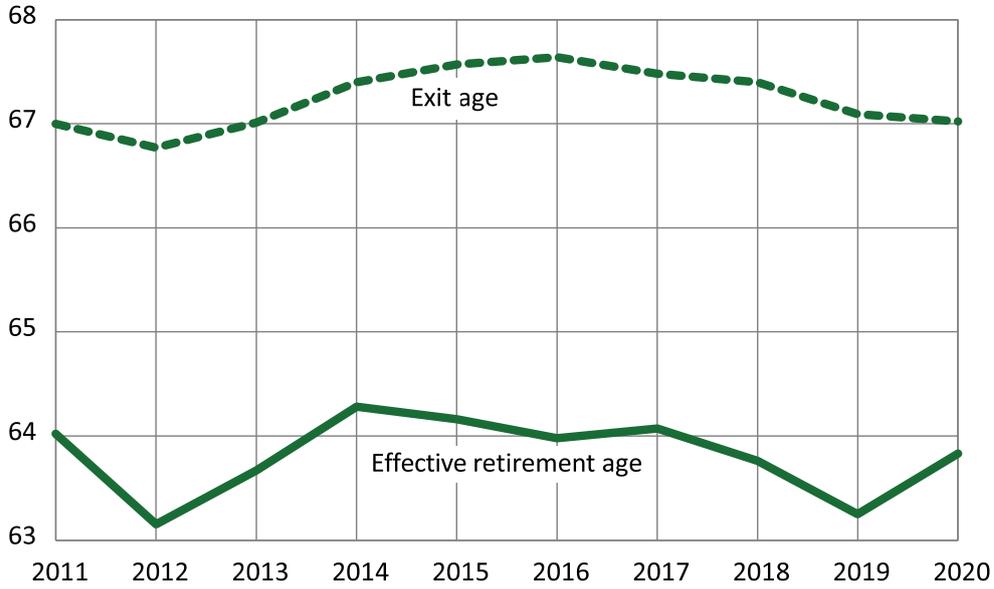
Expected effective retirement age by gender for 30- and 50-year-olds in Iceland in 2007–2020



**Figure 6.4.4**

Expected effective retirement age and exit age for 50-year-olds in Iceland in 2011–2020

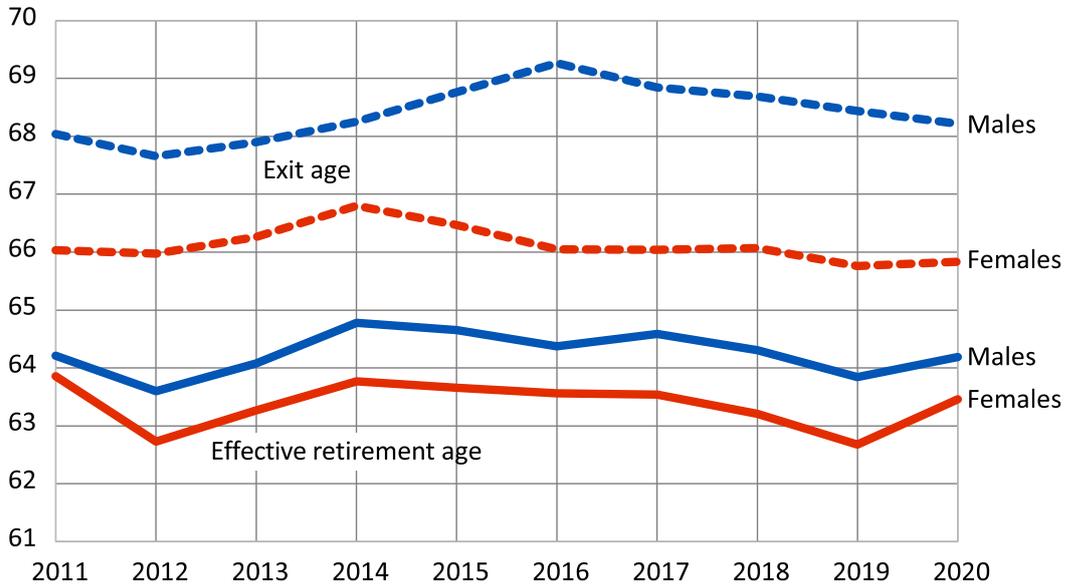
Age



**Figure 6.4.5**

Expected effective retirement age and exit age for 50-year-olds by gender in Iceland in 2011–2020

Age



## 6.5 Norway

### Norwegian pension system

The pension system is made up of three pillars: the old-age pension from the National Insurance Scheme, a pension from the employer (occupational pension and contractual pensions) and individual pensions.

#### Old-age pension

The National Insurance Scheme was introduced in 1967 and is the cornerstone of the Norwegian pension system. The goal is to ensure everyone a pension that is in reasonable proportion to what they earned before retirement. At the same time, emphasis has been placed on a good distribution profile by, among other things, ensuring everyone a good minimum pension level, even if they have not been employed.

The old-age pension was reformed in 2011, and it is this new system that we present here. The reform will be fully implemented for those born in 1963 and later, whereas older cohorts are partly affected by the reform. The main properties of the reform were a new model for accumulating pension rights, a flexible retirement age, life-expectancy adjustments and new indexation rules.

The benefits paid from the Norwegian statutory National insurance scheme are a residence-based guarantee pension and an employment-based supplementary pension (earnings-related pension). All residents are entitled to the guarantee pension, which is reduced against the earnings-related pension by 80 per cent.

The pension from the National Insurance Scheme is financed through the annual state budgets. This basically means that those who are working today pay the pensions of those who are on an old-age pension today (PAY-AS-YOU-GO). The old age pension system's ongoing financing means that the younger ones must support the older ones. The return from the Petroleum Fund helps to ensure the long-term sustainability of public finances and to make the expected growth in pension expenditure easier to manage.

Since the National Insurance Scheme was introduced, the composition of the Norwegian population has changed. There are more elderly people as people live longer than before. These were the main reasons why the pension reform was implemented in 2011. There was broad political agreement on the content and implementation, as well as on the notion that the reform will ensure a more sustainable pension system also for future generations.

#### Accumulation of pension rights

The model for accumulation of pension rights ensures that the earnings-related pension is directly related to the overall lifetime income. Those born in 1954 and later will accumulate a pension account from 18.1 per cent of their yearly income up to a

ceiling of 7.1 times the National Insurance Scheme's basic amount (approximately 72,000 euros<sup>9</sup> in 2021, and equivalent to approximately 120 % of the average wage). There are no limits to the number of accumulation years between the age of 13 and 75.

### Flexible withdrawal age

The 2011 reform introduced a flexible withdrawal age between ages 62 and 75. In the old system the withdrawal age was fixed at 67 years. To be able to withdraw your pension before the age of 67, your pension entitlements must exceed the amount of the minimum pension. It is possible to withdraw a full or a partial pension. The possibility to combine old age pension with work income without any deduction in the pension had been introduced already before the reform, in the years 2008–2010, but the reform made this option available already from age 62. The goal was to provide good work incentives for pensioners. It also means that people will have to make two choices: when to withdraw their old age pension and when to stop working. In principle, these two decisions are two completely separate decisions.

### Life-expectancy adjustment

At withdrawal, the pension account will be divided by a life expectancy divisor. The longer one defers retirement, the higher the annual pension. As life expectancy increases, future cohorts will have to delay retirement to receive comparable pensions.

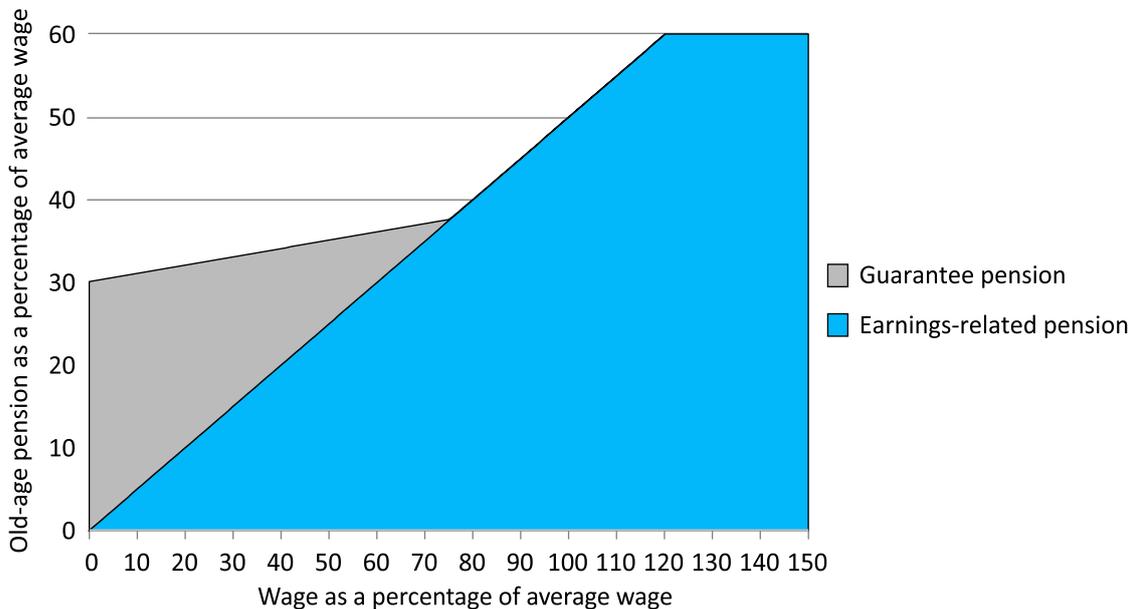
### Indexation rules

Pensions are indexed by wage growth, then subtracted with a factor of 0.75 per cent. From 2022, the indexation rules have been changed, so that pensions will be adjusted annually with an average of price and wage growth. In the long run, the change is expected to give the same results as the existing rules but, to protect old-age pensioners against negative real wage growth in their pensions to a greater extent than before.

<sup>9</sup> €1 = NOK 10.3 (9 Sept. 2021)

**Figure 6.5.1**

Structure of the Norwegian old-age pension system (after the 2011 reform)



### Occupational pension and contractual pension (AFP)

In addition to the old-age pension from the National Insurance Scheme, the vast majority of Norwegians are entitled to an occupational pension through their current and previous employers. Most employers are obliged to have an occupational pension scheme for their employees, with a minimum contribution rate of 2 per cent.

The Norwegians may also be entitled to a contractual pension (AFP) if their employer has a collective agreement in which AFP is included. The AFP scheme covers all employees in the public sector and about half of the employees in the private sector. There are also special individual conditions for an employee to be eligible for AFP.

### Individual pensions

Individual pensions can also be part of the pension of Norwegians. This will be in addition to other payments when they retire. There are different ways to save and different saving products that are adapted for pension saving, some also with tax benefits. Individual pension saving is not an essential part of the total Norwegian pension system.

### Results

#### Expected effective expected retirement age

In 2020 the expected retirement age for 50-year-olds was 63.4 years in Norway.

Developments over the past years can be seen in connection with the inflow to disability pension and the introduction of the old age-pension reform of 2011. There was a strong growth in the expected retirement age in 2004 and the following years. This was caused by the introduction of a time-limited disability benefit, which is not included among the pensions when calculating the expected retirement age. A main goal with this scheme was to reduce inflow to the disability pension. In 2010 and especially in 2011, there was a significant decline in the expected retirement age at all age levels in Norway. This was caused by increased inflow to both the disability pension and the contractual pension (AFP), and in 2011 also to the old-age pension due to the introduction of flexible retirement on an old-age pension as of 62 years. The increased inflow to the disability pension is largely due to the abolition of the time-limited disability benefit in 2010.

The growth in the expected retirement age after 2011 is due to a reduction in the number of people withdrawing an old age pension at age 62–66 years compared to 2011, when the influx was massive since five cohorts had the opportunity to withdraw the old-age pension before the age of 67. The variation in the expected retirement age after 2011 is first and foremost caused by fluctuations in the inflow to the disability pension. In recent years, the expected retirement age has been fairly stable at approximately 63 years, before the marked increase in 2020. The development in 2020 is explained by a reduced inflow to the disability pension. This was due to the corona pandemic during which temporary rules caused recipients of the work assessment allowance (AAP) to continue receiving that benefit instead of going on a disability pension.

Labour market conditions also affect retirement behaviour. Norway was in a boom from 2003/2004 to 2008. The growth in demand for labour during this period may have contributed to the growth in the expected retirement age in 2005–2007. Correspondingly, a reduced demand for labour during the financial crisis in 2009–2010 has contributed to increased withdrawal of pension. The oil price plunge in 2014 may have affected the retirement behaviour in 2014 and 2015.

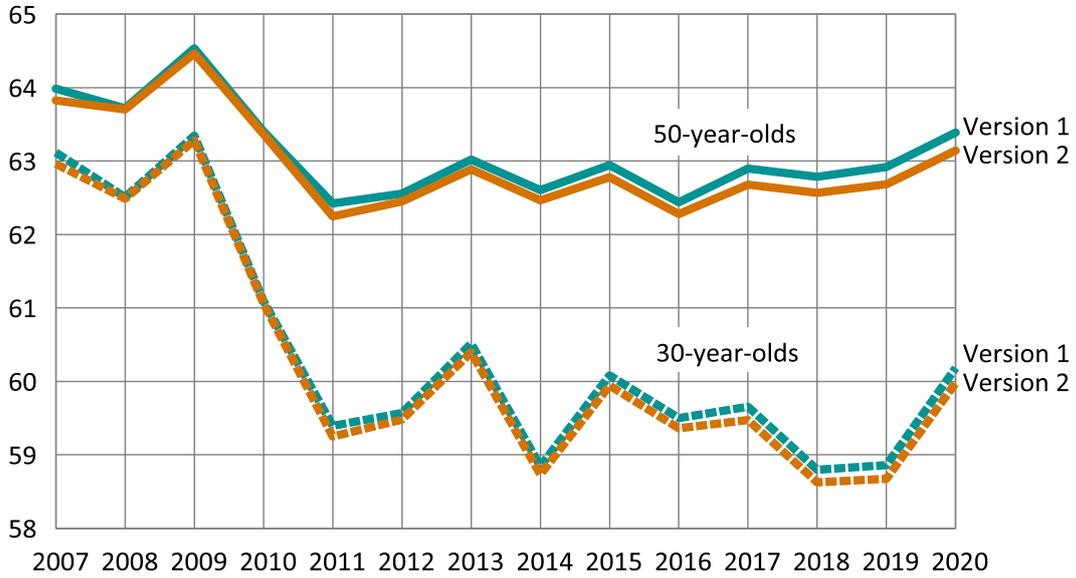
### **Main reasons for differences between the results of the two indicators**

In 2020, the exit age measured at 50 years of age was 65.2 years, compared to the effective expected retirement age of 63.4 years. The main reason for the difference is that after the old-age pension reform in 2011, the decisions regarding withdrawal of the old-age pension and exit from working life have been separated. Before the reform, the withdrawal of the old-age pension or the contractual pension (AFP) in the private sector mostly coincided in time with the exit from working life. In the public sector, the withdrawal of the contractual pension (AFP) still largely coincides with the exit of working life. This will change from 2025, when the contractual pension (AFP) in the public sector is finally adapted to the old-age pension reform of 2011.

**Figure 6.5.2**

Expected effective retirement age for 30- and 50-year-olds in Norway in 2007–2020

Age

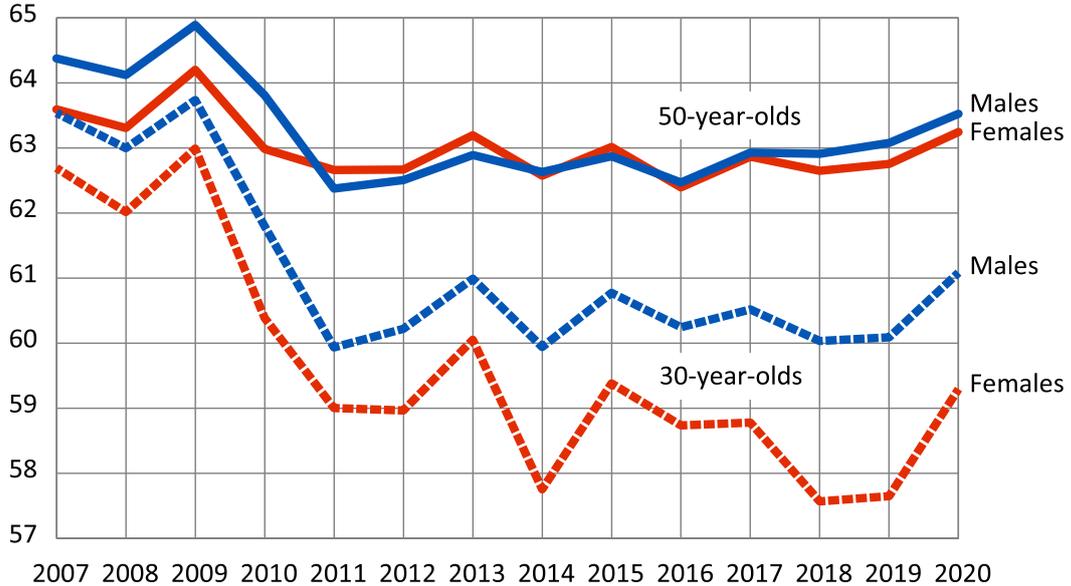


Version 1: All pensions, excluding the partial pension  
 Version 2: All pensions, including the partial pension

**Figure 6.5.3**

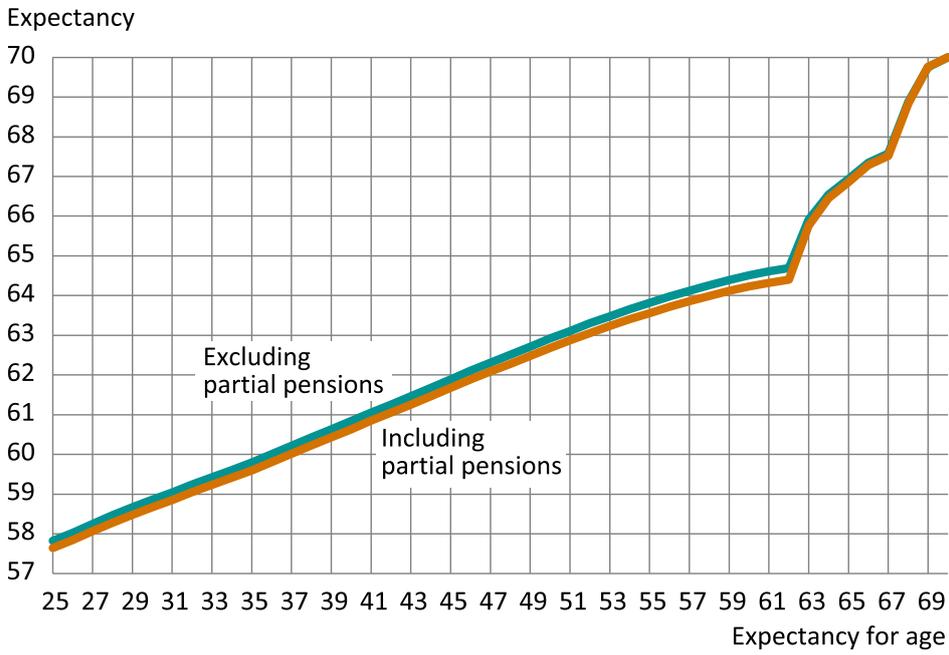
Expected effective retirement age for 30- and 50-year-olds by gender in Norway in 2007–2020

Age



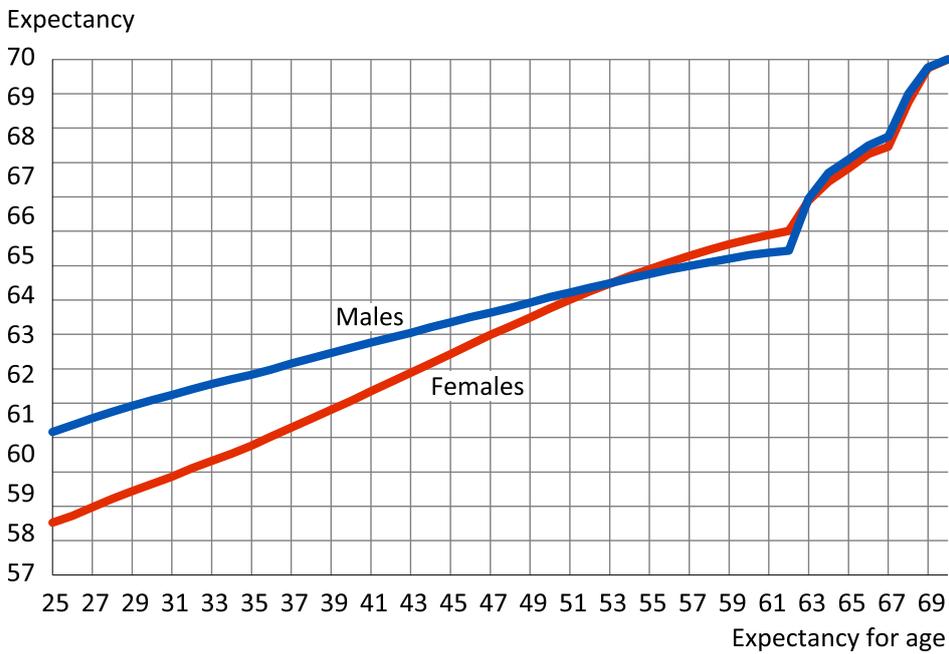
**Figure 6.5.4**

The role of partial pensions for the calculation of the expected effective retirement age by age in Norway in 2019



**Figure 6.5.5**

Expected effective retirement age by gender and age in Norway in 2019



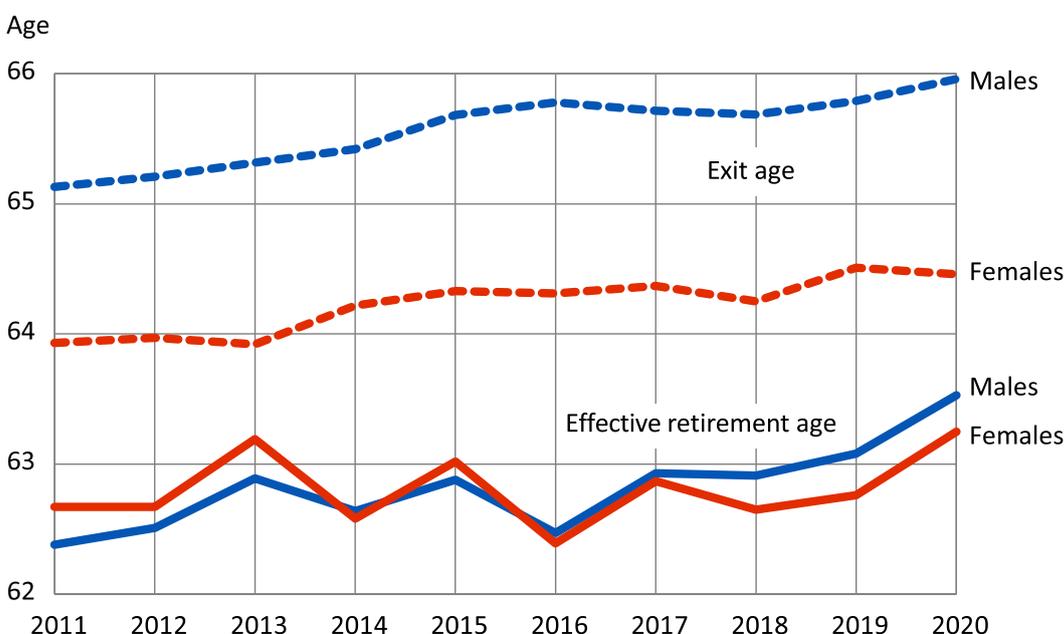
### Exit age – Norway

In 2020 the average exit age at 50 years was 65.2 years, unchanged compared to 2019. Since 2007 there has been a gradual increase in the exit age. This is partly due to reduced disability rates among people aged 50 years and older. Although disability rates have risen among people in their early- and mid-fifties, this has been more than countered by a fall in the disability rate among people in their late-fifties and sixties.

While 62 years was the most common exit age in 2010, it is now 67 years. This is a development driven by the old-age pension reform in 2011 and the adaption of the contractual pension (AFP) in the private sector to the old-age pension reform. After 2011 it became common to withdraw old age pension and the contractual pension earlier than the exit age from working life, because there were no longer any deduction rules in place.

**Figure 6.5.6**

Expected effective retirement age and exit age by gender for 50-year-olds in Norway in 2011–2020



### A note on the calculations

When calculating the effective retirement age in Norway, the old-age pension, contractual pension (AFP) and disability pension have been included in the calculations. Occupational pensions are not included due to lack of data. Occupational pensions are mostly withdrawn at the same age as the old-age pension. However, some occupations, with special physical or mental demands or with special safety requirements, have a job-specific retirement age in their occupational pension. In these occupations it is most common to withdraw the occupational pension earlier than the old-age pension.

## 6.6 Sweden

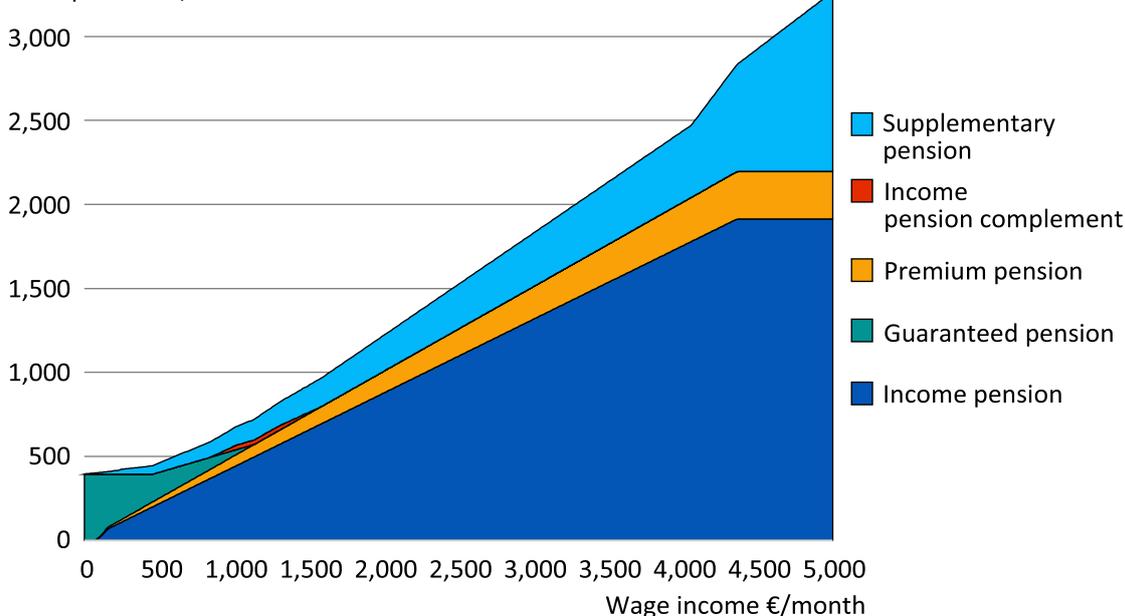
### Swedish pension system

The Swedish statutory old-age pension scheme, which was reformed in 1999, consists of the earnings-related pension and the guaranteed pension (garantipension), which secures a minimum cover. The earnings-related pension is based on defined contributions and it is divided into two components: the income pension (inkomstpension) and the premium pension (premiepension). Both pensions are determined based on the insured person's accumulated amount of pension contributions for the whole working career. Contributions accumulate annually at a rate of 18.5 per cent of the pensionable earnings. The upper limit for the pensionable earnings (earnings ceiling) is approximately 4,200 euros per month.

**Figure 6.6.1**

Structure of the Swedish old-age pension system

Total pension €/month



The contributions of the income pension are not funded, but instead the pension is determined based on the calculated contribution accumulation, whereas the contributions levied for the premium pension are funded and the pension is determined based on the contributions and the yields on them. The insured may decide themselves on the investment of the premium pension contributions. If not, they will enrol in the state alternative. The share of the premium pension of the aforementioned old-age pension contribution is 2.5 percentage points. The earnings-related pension covers all individuals who contribute through taxation, no matter if they are employed or self-employed. The earnings-related pension will take effect gradually and the defined-benefit pension of the former pension scheme (ATP) is partially still in force during the transition period.

It is possible to retire on the earnings-related pension flexibly according to one's own choice from the age of 62. The pension may be taken as a full pension or a partial pension, which amounts to three-fourths, one-half or one-fourth of the full pension.

When the insured person retires, the accumulated pension capital is converted to a pension by dividing it with an annuity divisor (*delningstal*) that reflects the age group's remaining life expectancy and includes an interest of 1.6 per cent, credited to pensions in advance. Increasing life expectancy increases the divisor and reduces the monthly paid pension. Due to the way the pension is determined, the pension increases the more the insured postpones retirement.

The guaranteed pension, like the former national basic pension, covers everyone who is resident in the country. The pension amount is linked to the number of years of residence. The earnings-related pension reduces the guaranteed pension so that when the earnings-related pension is high enough, no guaranteed pension is paid. The retirement age for the guaranteed pension is 65 years.

The sickness compensation (*sjukersättning*) and activity compensation (*aktivitetsersättning*), which are paid from health insurance, have since the beginning of 2003 replaced the former disability pension (*förtidspension*), payable from the pension scheme, and the sickness benefit (*sjukbidrag*), payable as a fixed-term disability pension.

In addition to statutory pensions, Sweden has very extensive supplementary pension schemes based on labour market agreements for both public and private sector employees.

Membership in the schemes is mandatory for all employers and employees working in an industry covered by such an agreement. The supplementary pension schemes cover more than 90 per cent of all employees in Sweden.

In addition to statutory pensions, this report includes benefits payable from health insurance which can be classified as disability pensions: sickness compensation (*sjukersättning*) and activity compensation (*aktivitetsersättning*).

In addition to pension, persons who are 65 years or older and live in Sweden can apply for a housing supplement for pensioners (*bostadstillägg till pensionärer*). The size of the housing supplement depends on income, assets, housing costs and whether the person lives alone or not. The maximum amount, which is tax free, is 640 euros per household per month.

The financial support for the elderly (*äldreförsörjningsstöd*) guarantees that persons who live in Sweden and have a low pension or no pension at all still have a fair standard of living in old age. Only persons who withdraw all of the national public pension are eligible. This support is means tested every year and provides those with a low income enough to make them reach the level of a reasonable standard of living.

In September 2021, a new benefit called the income pension complement (*Inkomstpensionstillägget*) was added to the statutory old-age pension scheme. The income pension complement is not a result of individuals' defined contributions;

instead, it is funded by the Government as a part of the state budget aside of the pension system. It is, however, related to an individual's income pension. The size of the income pension complement is at most approximately 60 euros per month (before tax) but can be as low as 0 euros. The income pension complement is entitled to those who have an income pension between around 900 and 1,700 euros per month. It is granted at the age of 65 or more. A full income pension complement requires between 35 and 40 years of pensionable income in Sweden. The benefit is targeted at those who have had a long working life in Sweden but low wages.

### Reforms that have affected the exit age and the effective retirement age

In January 2020 the process of increasing the retirement ages within the Swedish pension system was initiated. At the time, the lowest age for entitlement of the public pension was increased from 61 to 62 years.

By the year 2023, the lowest age for entitlement of the public pension will probably be increased once more to 63 years and, at the same time, the lowest age for receiving the guaranteed pension will be increased from 65 to 66 years.

Further on, the lowest age for withdrawal of a public pension and receiving the guaranteed pension, the income pension complement, the housing supplement or financial support for elderly will be linked to the development of life expectancy, which means that a so-called recommended retirement age (riktålder) will be introduced.

In 2026, the normal retirement age is expected to be implemented and will probably be 67 years. The minimum age of public pension entitlement will be set to apply three years before the normal retirement age. The normal retirement age will be calculated and determined every year. However, the normal retirement age bill has not yet passed Parliament.

At the same time as the lowest age limit within the pensions system was increased from 61 to 62, the individual's own right to stay in employment was strengthened by increasing the right to remain at work from the age of 67 to 68 (Employment Protection Act [Lagen om anställningsskydd, LAS]). In 2023, the individual's right will be increased even further to the age of 69.

These changes in ages linked to retirement will, of course, have an impact on the indicators measured in this report. So far, only the first step in raising the retirement age has been taken, but the following years we expect to see more changes in the development of these indicators.

Since 2007 the number of persons receiving sickness compensation has decreased at a large scale. In 2004 there were a total of 520,000 persons receiving the benefit with close to 69,000 new beneficiaries in just 2004. By the end of 2020, these numbers had decreased to 234,000 receivers and only 5,800 new beneficiaries. The biggest decrease took place between 2004 and 2010, and since then, the numbers of receivers have steadily dropped. This is an effect of changes in the sickness compensation legislation that took place in 2008. These changes also impacted the indicators since fewer people are admitted to the benefit and, therefore, the inflow at the lower ages is less than in the early years of the 21st century.

## Results

The effective retirement age in Sweden has risen since 2007. The biggest increase occurred between 2007 and 2010, and the effect is biggest for the 30-year-olds. This increase started before 2007 and is an effect on the changes in sickness compensation that took place during the same period.

Since 2011, the effective retirement age decreased slightly, only to turn upwards again after 2014. In 2020, the increase of the effective retirement age became steeper as a result of the retirement age reform where the lowest age for entitlement to public pension was increased from 61 to 62 years.

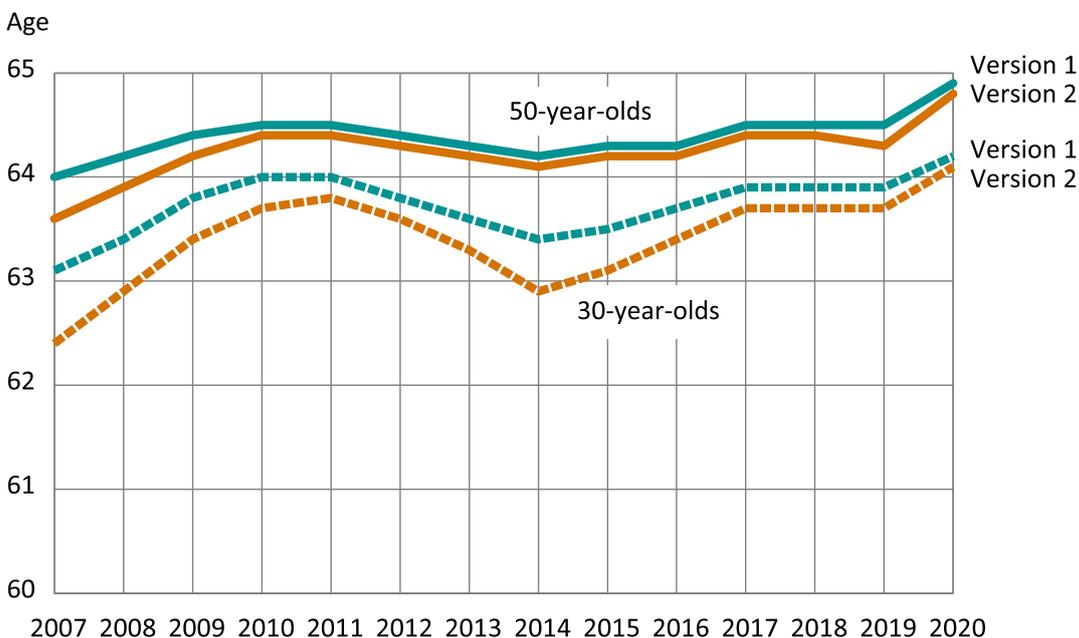
## A note on the calculations

When calculating the effective retirement age in Sweden, statutory pensions and the sickness compensation are taken into account. To be considered retired when drawing sickness compensation, a person must receive the benefit regularly, from the first payment until they die or begin to receive a statutory pension.

Occupational pensions play an important role in the Swedish pension system, but due to lack of data, they have not been included in the calculations. If these were included, the result would probably be lower. It is possible and common to draw occupational pensions earlier than the statutory pension, as of age 55 in most agreements.

**Figure 6.6.2**

Expected effective retirement age for 30- and 50-year-olds in Sweden in 2007–2020



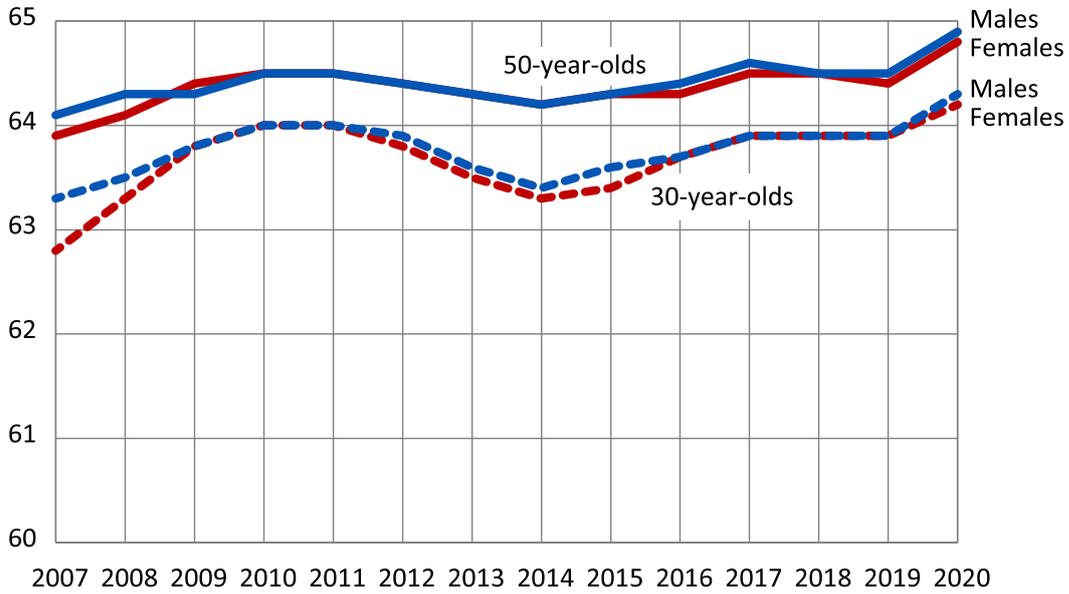
Version 1: All pensions, excluding the partial pension

Version 2: All pensions, including the partial pension

**Figure 6.6.3**

Expected effective retirement age for 30- and 50-year-olds by gender in Sweden in 2007–2020

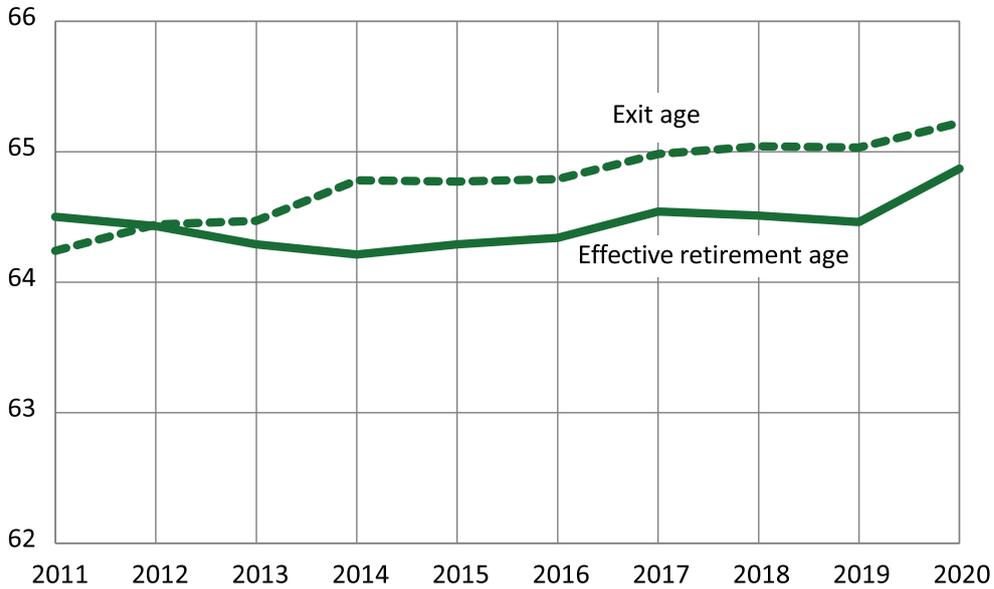
Age



**Figure 6.6.4**

Expected effective retirement age and exit age for 50-year-olds in Sweden in 2011–2020

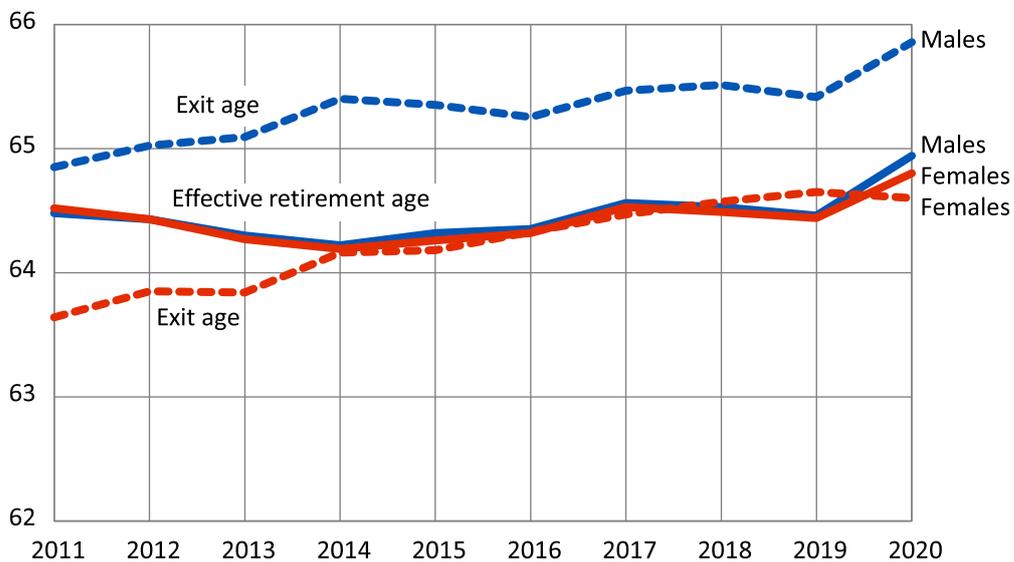
Age



**Figure 6.6.5**

Expected effective retirement age and exit age for 50-year-olds by gender in Sweden in 2011–2020

Age



## Appendices

### Appendix 1

Expected effective retirement age 2007–2020

Year	For 30-year-olds						For 50-year-olds					
	Denmark	Estonia	Finland	Iceland	Norway	Sweden	Denmark	Estonia	Finland	Iceland	Norway	Sweden
Females and Males												
2007	60.5	60.2	60.2	62.5	63.1	63.1	62.3	60.6	61.6	65.5	64.0	64.0
2008	60.1	60.7	60.3	58.5	62.5	63.4	62.3	61.1	61.7	61.9	63.7	64.2
2009	59.9	60.6	60.4	57.8	63.3	63.8	62.2	61.0	61.7	61.4	64.5	64.4
2010	60.1	60.7	61.0	62.4	61.1	64.0	62.4	61.0	62.3	65.3	63.4	64.5
2011	60.4	61.3	61.1	61.7	59.4	64.0	62.5	61.6	62.4	64.0	62.4	64.5
2012	61.0	61.7	61.5	60.1	59.6	63.8	62.7	61.9	62.6	63.2	62.6	64.4
2013	62.2	61.6	61.4	59.4	60.5	63.6	63.1	61.8	62.5	63.7	63.0	64.3
2014	63.2	62.0	61.8	61.0	58.8	63.4	63.7	62.2	62.7	64.3	62.6	64.2
2015	63.2	62.2	61.8	61.5	60.1	63.5	63.9	62.4	62.8	64.2	62.9	64.3
2016	63.3	61.7	61.9	61.4	59.5	63.7	64.1	62.1	62.8	64.0	62.4	64.3
2017	63.3	57.3	61.9	62.4	59.7	63.9	64.2	61.1	62.8	64.1	62.9	64.5
2018	63.1	56.3	62.0	62.2	58.8	63.9	64.4	60.5	63.0	63.8	62.8	64.5
2019	63.3	58.5	62.2	59.1	58.9	63.9	65.0	61.6	63.2	63.3	62.9	64.5
2020	62.6	60.9	62.9	60.8	60.2	64.2	64.6	62.7	63.7	63.8	63.4	64.9
Females												
2007	59.8	59.5	60.5	61.6	62.7	62.8	61.7	59.7	61.7	65.3	63.6	63.9
2008	59.4	61.6	60.5	58.0	62.0	63.3	61.7	61.8	61.8	61.6	63.3	64.1
2009	59.2	60.4	60.7	58.0	63.0	63.8	61.7	60.6	61.8	61.4	64.2	64.4
2010	59.5	60.4	61.2	61.7	60.4	64.0	61.9	60.6	62.3	64.7	63.0	64.5
2011	59.8	62.5	61.3	60.6	59.0	64.0	62.0	62.6	62.4	63.9	62.7	64.5
2012	60.3	61.8	61.7	59.1	59.0	63.8	62.2	62.0	62.7	62.7	62.7	64.4
2013	61.6	61.8	61.4	58.6	60.1	63.5	62.6	61.8	62.5	63.3	63.2	64.3
2014	62.8	63.2	61.9	60.0	57.8	63.3	63.3	63.4	62.8	63.8	62.6	64.2
2015	62.8	62.6	61.9	60.0	59.4	63.4	63.4	62.7	62.9	63.7	63.0	64.3
2016	62.9	61.9	61.9	59.9	58.7	63.7	63.6	62.2	62.8	63.6	62.4	64.3
2017	62.8	57.9	61.9	59.9	58.8	63.9	63.8	61.3	62.8	63.5	62.9	64.5
2018	62.6	56.8	61.9	60.7	57.6	63.9	63.9	60.7	63.0	63.2	62.7	64.5
2019	62.8	59.2	62.2	57.4	57.7	63.9	64.5	61.8	63.3	62.7	62.8	64.4
2020	62.0	61.4	63.0	59.9	59.3	64.2	64.0	62.9	63.7	63.5	63.3	64.8
Males												
2007	61.1	60.8	60.0	63.5	63.5	63.3	62.9	61.4	61.6	65.9	64.4	64.1
2008	60.7	60.8	60.0	59.2	63.0	63.5	62.9	61.4	61.5	62.1	64.1	64.3
2009	60.6	60.5	60.0	57.9	63.7	63.8	62.7	61.1	61.5	61.6	64.9	64.3
2010	60.7	60.9	60.7	63.2	61.8	64.0	62.8	61.3	62.2	65.8	63.8	64.5
2011	61.0	61.2	60.9	62.8	59.9	64.0	63.0	61.6	62.2	64.2	62.4	64.5
2012	61.6	61.5	61.3	61.2	60.2	63.9	63.3	61.9	62.4	63.6	62.5	64.4
2013	62.7	61.5	61.4	60.3	61.0	63.6	63.6	61.8	62.5	64.1	62.9	64.3
2014	63.5	61.7	61.7	62.0	59.9	63.4	64.1	62.1	62.6	64.8	62.6	64.2
2015	63.6	61.8	61.6	62.9	60.8	63.6	64.3	62.2	62.6	64.7	62.9	64.3
2016	63.7	61.4	61.9	62.7	60.2	63.7	64.5	62.0	62.7	64.4	62.5	64.4
2017	63.7	56.6	61.8	63.6	60.5	63.9	64.7	60.9	62.7	64.6	62.9	64.6
2018	63.6	55.7	62.1	63.2	60.0	63.9	64.8	60.3	63.0	64.3	62.9	64.5
2019	63.9	57.7	62.2	61.0	60.1	63.9	65.5	61.2	63.2	63.8	63.1	64.5
2020	63.3	60.4	62.9	61.6	61.1	64.3	65.2	62.5	63.7	64.2	63.5	64.9

## Appendix 2

### Exit age\* from the labour market 2011–2020

Year	Denmark	Estonia	Finland	Iceland	Norway	Sweden	EU27
Females and Males							
2011	62.7	63.6	62.2	67.0	64.5	64.2	61.1
2012	62.9	63.9	62.4	66.8	64.6	64.4	61.4
2013	62.9	64.1	62.5	67.0	64.6	64.5	61.6
2014	63.2	64.4	62.7	67.4	64.8	64.8	61.8
2015	63.4	64.4	62.9	67.6	65.0	64.8	62.0
2016	63.8	64.8	63.0	67.6	65.1	64.8	62.1
2017	64.0	65.0	63.1	67.5	65.1	65.0	62.4
2018	64.2	65.2	63.4	67.4	65.0	65.0	62.6
2019	64.5	65.9	63.6	67.1	65.2	65.0	62.7
2020	64.5	65.7	63.8	67.0	65.2	65.2	62.8
Females							
2011	61.9	63.5	61.9	66.0	63.9	63.6	60.4
2012	62.0	63.8	62.2	66.0	64.0	63.8	60.6
2013	62.0	64.0	62.3	66.3	63.9	63.8	60.9
2014	62.2	64.0	62.5	66.8	64.2	64.2	61.1
2015	62.5	64.4	62.8	66.5	64.3	64.2	61.3
2016	62.9	65.0	63.0	66.0	64.3	64.3	61.5
2017	63.2	64.8	62.9	66.0	64.4	64.5	61.8
2018	63.3	65.4	63.2	66.1	64.3	64.6	61.9
2019	63.5	66.0	63.3	65.8	64.5	64.6	62.1
2020	63.6	66.0	63.3	65.8	64.5	64.6	62.2
Males							
2011	63.5	63.8	62.6	68.0	65.1	64.8	61.9
2012	63.8	64.0	62.7	67.7	65.2	65.0	62.1
2013	63.8	64.4	62.7	67.9	65.3	65.1	62.3
2014	64.2	64.9	62.9	68.3	65.4	65.4	62.5
2015	64.3	64.5	63.0	68.8	65.7	65.4	62.6
2016	64.7	64.6	63.1	69.3	65.8	65.3	62.8
2017	64.8	65.2	63.4	68.8	65.7	65.5	63.0
2018	65.0	65.1	63.7	68.7	65.7	65.5	63.2
2019	65.4	65.7	63.9	68.4	65.8	65.4	63.4
2020	65.5	65.6	64.2	68.2	66.0	65.9	63.4

\*The exit age measures the average age of exit from the labour market. The calculation is based on individuals who are in the labour force at the age of 50. The calculation is made by comparing the labour force participation for every following age group after the age of 50 with the labour force participation at 50 years of age.





Statistics from  
The Finnish Centre for Pensions

## Expected effective retirement age and exit age in the Nordic countries and Estonia

This report examines the effective retirement age in the Nordic countries and Estonia by using two complementary indicators: the expected effective retirement age (expectancy) and the labour market exit age (exit age). Since the exit age and the expectancy are closely related, they tell us mainly the same story. In all the countries studied, policy measures have sought to delay retirement. Indicators show that this has also happened. Although there are still some clear differences between countries within these indicators, they have narrowed during the review period.

Statistics from The Finnish Centre for Pensions

The Finnish Centre for Pensions is a developer, expert and joint service producer of statutory pension provision. Our Statistics series includes statistics from various areas of pension provision. The statistics are based on register data of the pension system.



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