Employment of older workers

Research Note no. 5/2015

E. Őzdemir, T. Ward
M. Fuchs, S. Ilinca, O. Lelkes,
R. Rodrigues, E. Zolyomi

February - 2016

EUROPEAN COMMISSION

Directorate-General for Employment, Social Affairs and Inclusion
Directorate A — Employment & Social Governance
Unit A4 – Thematic analysis

Contact: Maria VAALAVUO
E-mail: *Maria.VAALAVUO@ec.europa.eu*

European Commission
B-1049 Brussels

EUROPEAN COMMISSION

SOCIAL SITUATION MONITOR

Applica (BE), Athens University of Economics and Business (EL),
European Centre for Social Welfare Policy and Research (AT),
ISER – University of Essex (UK) and TÁRKI (HU)

Employment of older workers

Research Note 5/2015

Erhan Őzdemir, Terry Ward (Applica)

Michael Fuchs, Stefania Ilinca, Orsolya Lelkes, Ricardo Rodrigues, Eszter Zolyomi (European Centre for Social Welfare Policy and Research)

This Research Note was financed by and prepared for the use of the European Commission, Directorate-General for Employment, Social Affairs and Inclusion. The information contained in this publication does not necessarily reflect the position or opinion of the European Commission. Neither the Commission nor any person acting on its behalf is responsible for the use that might be made of the information contained in this publication.

Directorate-General for Employment, Social Affairs and Inclusion

2016

Europe Direct is a service to help you find answers to your questions about the European Union.

Freephone number (*)**:**

00 800 6 7 8 9 10 11

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

LEGAL NOTICE

This document has been prepared for the European Commission however it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

More information on the European Union is available on the Internet (http://www.europa.eu).

© European Union, 2016
Reproduction is authorised provided the source is acknowledged.

Table of Contents

Abstract

This Research Note is divided into two parts. The first part analyses the *ad hoc* module on the transition from work to retirement, examining the relative number of men and women in the EU in receipt of old-age pensions before they reach 65 (the official age of retirement in most Member States), the extent to which they continue to work both before and after reaching 65, the hours they work and the types of job they do. It also considers whether or not those with higher levels of education tend to be more inclined to remain in employment than those with lower levels, as well as the main reasons for staying in work and how far it is related to a desire, or need, to increase household income. The second part examines the health condition of older people and the extent to which they are affected by impairments, including mental disabilities. It also compares the health condition of those in employment with those who have retired or are unemployed as well as with those who are economically inactive but are not yet retired. It is based on data collected by the fifth wave of SHARE (Survey of Health, Ageing and Retirement in Europe), which covers men and women aged 55-69 in 14 European countries and relates to 2013.

Introduction

The Research Note examines the employment situation of older workers across the EU and, most especially, their transition into retirement. In so doing, it focuses on the interaction between pensions and the employment of older workers. It investigates, in particular, the relationship between employment and receipt of pension on the basis of the *ad hoc* module included as part of the Labour Force Survey in 2012. The issues that are of interest are, first, the age at which older people begin to draw an old-age pension in different EU countries, and, secondly, the effect that this has on their employment behaviour.

For those who receive a pension before they reach the normal age of retirement in the country concerned, this can either represent a financial incentive to retire or it can provide a means of gradually making the transition from working into retirement rather than moving immediately from one to the other. In the first case, therefore, the pension enables workers to take early retirement, in the second, it is a partial one that compensates them for reducing their hours of work in preparation for retirement. As such, it may represent a means of maintaining older people in employment, insofar as the alternative to them working shorter hours is not working at all. At the same time, an early-retirement pension does not necessarily mean that those in receipt no longer work. Instead, it may simply mean that they change the nature of the work that they do. For example, they may pursue long-standing interests (given that financial reward may no longer be the primary motivation for working) or choose a part-time rather than full-time job, much in the same way as those opting for a partial pension in countries where such a scheme exists.

Notwithstanding the possibility that people drawing an early-retirement pension continue to work, many governments across Europe over the past 20 years or so have tightened the conditions for access to such a pension in an attempt to reduce the numbers retiring before they reach the official retirement age. This was in response to the trend growth in the number of older people in all EU Member States and the pressure that this imposed on old-age pension systems. It was also, however, in response to the marked increase in the proportion of workers retiring in their late 50s and early 60s that had occurred over the previous two decades, most especially during the economic recessions of the early 1980s and early 1990s.

A number of European Commission reports published over the years have emphasised the importance of people remaining longer in employment and the need for policies in Member States to adjust, with pension systems reformed to give incentives to people to postpone the age at which they withdraw from the labour market rather than encouraging them to retire early[1].

The LFS *ad hoc* module provides an insight into the extent to which people in these age groups received an old-age pension in 2012 across the EU and enables the proportion concerned to be compared with that in 2006 when the previous survey was carried out. This should indicate whether or not a tendency for the proportion to decline over time is evident, though the economic and financial crisis that was present over much of this period means that the context differed markedly from that over most of the previous 10 years or so. A further complication is that the questions asked in the 2012 survey were not quite the same as those asked in 2006, no doubt to try to elicit more informative information. Accordingly, there is some uncertainty about the comparability of the results.

Most of the analysis, therefore, is based on the results of the later survey. The main focus is on the extent to which men and women receiving old-age pensions continue to work, and how far receipt of a pension – not only before reaching the official age of retirement but also after – means that people stop working. The focus too is on the hours that they work; in particular, whether or not there is evidence of them reducing

[1] See, for example, European Commission (2008), European Commission (2012) and more recently, 'Social protection promoting longer working lives' in European Commission (2016).

their working time as they approach retirement age, or even after they have passed it, and, accordingly, of a gradual transition into retirement. The occupations of those receiving a pension are also examined and compared with those that the people who have stopped working had before they retired, in order to see what kinds of job people who continue to work are most likely to do.

It examines as well the differences in educational attainment levels of the two groups. The aim is to see whether those with higher levels are more likely to continue working than those with lower levels, because perhaps of the kind of work that they do; or whether the reverse is the case because of the greater need for income of those with lower education who are more likely to be in less well-paid jobs. Related to this, the reasons why people continue to work are also considered, to see, in particular, the extent to which this is linked to a desire to supplement their pension and increase their income as opposed to non-financial reasons.

Part 2 examines the state of health of older workers, including their mental health, and the extent to which they are limited by disability, since this inevitably has an influence on their ability to continue in employment. The analysis is based on data from the fifth wave of the Survey of Health, Ageing and Retirement in Europe (SHARE), collected during 2013 in 14 European countries. It compares the health situation of those in employment with those who have withdrawn from the work force and are in retirement, as well as those who are unemployed and those who are economically inactive without being retired, such as people with serious disabilities.

An annex contains case studies of the policies in force to encourage older people to remain in employment in 4 Member States in different parts of the EU (Austria, Italy, the Netherlands and Poland), chosen to illustrate the different measures adopted across the EU. While the countries are not intended to be representative, they indicate the varying scale of efforts made to discourage people from retiring early and the extent of support provided to help them remain in employment.

Part 1 starts with a review of the changes in employment rates of older people in the EU over the long term, from 1995, and then the changes in more detail between 2006 and 2012, in order to put the examination of the age at which people begin to receive pensions and the extent to which they continue working into context.

Part 1 Transition from work into retirement

Trends in employment among older workers in the EU

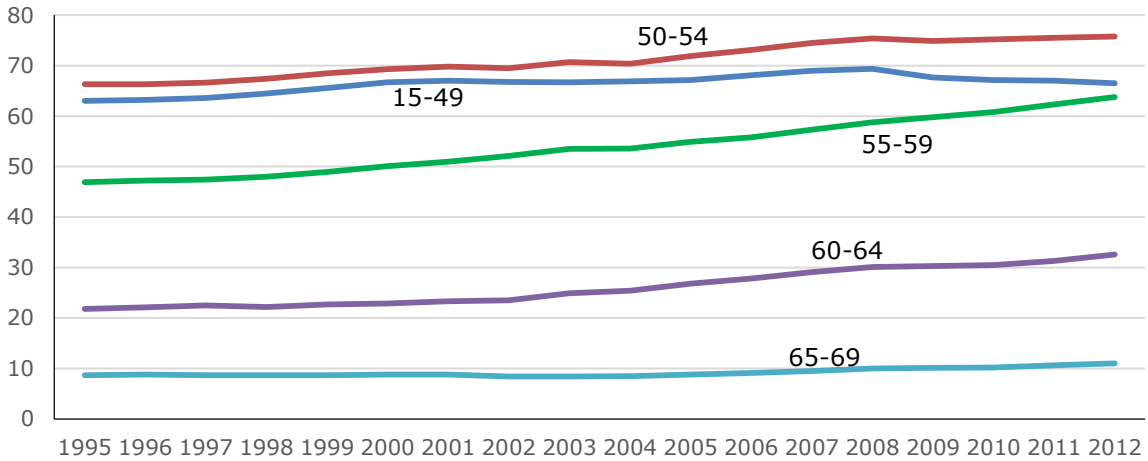
Over the period since 1995, the employment rate of older people, aged 50 and above, has tended to increase in the EU. This followed a lengthy period when the opposite was the case, when there was a trend towards people, and men especially, withdrawing from the labour force in their late 50s and early 60s, i.e. before reaching the official age of retirement in most Member States. Between 1985 and 1990, this was particularly marked among men aged 60-64, the participation rate of those in the EU15 falling from 40% to 36.5%, while over the same period the participation rate for men aged 50-54 fell from 90.5% to 89.5%, and for those aged 55-59 from 73.5% to 72.5%[2].

Over the subsequent 5 years, the participation rate of men aged 60-64 declined further to 32% in 1995 (i.e. a decline of 8 percentage points over a 10-year period). The rate for those aged 50-54 also declined to 87%, while the rate for those aged 55-59 fell by 5 percentage points to 67.5%[3]. The relatively large reduction in participation rates in the latter period was a consequence of the recession in the early 1990s, during which redundancies tended to be relatively concentrated on older men who were able to take early retirement. Participation among older women also fell for those aged 55 and above over the years 1990-1995 after increasing over the preceding 5 years.

[2] See Employment in Europe, 1996, p.49.
[3] Employment in Europe, 1996, op. cit.

Since 1995, the trend in the overall employment rates of older age groups in the EU has reversed, as Member States have tended to tighten access to early-retirement pensions and have sought to maintain people in employment rather than encouraging them to withdraw from the labour force in order to free up jobs[4]. Up to the onset of the economic and financial crisis, therefore, there was an increase in the employment rates of those aged 50 to 64, which outpaced that for those aged 15-49 from around 2001 onwards (Figure 1). This was made up of an increase in employment among both men and women in these age groups. There was also an increase in employment among those aged 65-69, but less marked.

Figure 1 Changes in employment rates by age group in the EU, 1995-2012 (% of each age group)



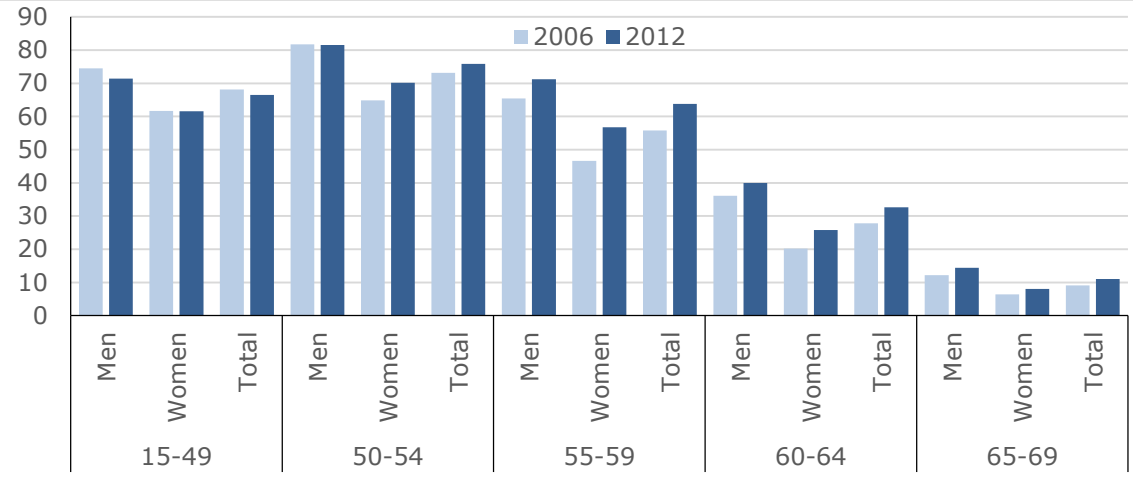
Source: Eurostat, EU LFS. Note: Change based on EU15, 1995-2000; EU27, 2000-2002; EU28, 2002-2012.

Over the crisis period, from 2008 to 2012, in sharp contrast to the rate for those aged 15-49, the employment rate of those aged 55-59 continued to increase at only a slightly slower pace than previously, whereas that for those aged 60-64 was unchanged for two years before rising again. There was also a rise from 2010 on (albeit a smaller one) in the rate for those aged 60-64, , while employment among those aged 50-54 was much the same in 2012 as in 2008. Among those aged 65-69, the proportion employed was slightly larger in 2012 than in 2008.

Examining the period 2006-2012 covered by the LFS *ad hoc* module in more detail, the rise over the period in the employment rate for the 5-year age groups from 55 to 69 was common to both men and women (Figure 2). For the 50-54 age group, on the other hand, there was a decline in the rate for men but a much smaller one than the decline for those aged 15-49. For women, the rate increased, in contrast to that for those in the 15-49 age group, for whom the rate remained broadly unchanged.

[4] Note that, for older workers, there is a close correlation between changes in employment rates and in participation rates. Unemployment tends to be relatively low except in countries where unemployment benefits are used as a form of early retirement.

Figure 2 Employment rates by age group and for men and women in the EU, 2006 and 2012 (% of each age group)



Source: Eurostat, Labour Force Survey

The increase in employment among those aged 55-59 was common to all apart from 5 Member States (Denmark, Estonia, Greece, Ireland, and Lithuania), all of which, except Denmark, experienced large-scale job losses over the period.

Among those aged 50-54, employment rose in all bar 7 countries (Denmark, Estonia, Greece and Ireland again, plus Spain, Latvia and Portugal). Among those aged 60-64, employment also increased in most Member States, declining only in 8 (the same 7 countries where employment fell among those aged 50-54 except Denmark, plus Romania and Slovenia), all apart from Slovenia experiencing a large reduction in overall employment.

For those aged 65-69, the pattern of experience was very similar, with the employment rate also falling in 8 countries (7 of the 8 experiencing a fall in the rate for the 60-64 age group, all except Spain, where the rate remained unchanged, plus Croatia). In stark contrast, the employment rate for those aged 15-49 fell in all apart from 7 Member States (Czech Republic, Germany, Luxembourg, Malta, Austria, Poland and Romania), all of which except Romania were hit less hard than other countries by the crisis.

The increase in employment among older age groups over the crisis period is in sharp contrast to the previous periods of economic downturn in the early 1980s and early 1990s when employment fell. This in large part reflects the change in attitude towards older workers among governments and employers alike, from positively encouraging early retirement (in the earlier period, to avoid compulsory redundancies) to attempting to keep them in employment.

The shift in policy, however, seems to have been more successful in respect of those aged 55-59 than among those aged 60-64, which is below the official age of retirement in most Member States (see Table 1). In 2012, it was still the case that only a third of those aged 60-64 were in work, 40% of men and just 26% of women. The proportion was below 20% in Hungary, Malta, Slovenia and Slovakia, all countries in which there was a possibility of retiring before reaching 65 while receiving a full pension.

Table 1 Official retirement rates in EU Member States, 2012

	Men	Women
Belgium	65	65
Bulgaria	64	61
Czech Republic	62	57
Denmark	65	65
Germany	65	65
Estonia	63-65	61-65
Ireland	65	65
Greece	65	62
Spain	65	65
France	60-65	60-65
Croatia	65	61
Italy	66	62-63
Cyprus	65	65
Latvia	62	62
Lithuania	62-65	60-65
Luxembourg	65	65
Hungary	62-65	62-65
Malta	61-65	60-65
Netherlands	65	65
Austria	65	60
Poland	65	60
Portugal	65	65
Romania	64-65	59-62
Slovenia	58-65	58-63
Slovakia	62	62
Finland	65	65
Sweden	61-67	61-67
UK	65	61-65

Note: The figures refer to the age at which men and women become entitled to a full pension. In many countries, the official retirement age was in the process of being gradually increased. For women, too, there was a general policy of raising the age to be in line with that of men. In some countries, the retirement age is combined with a minimum period of social contribution payments.
Source: MISSOC, 01/07/2012 version

Men and women aged 50-69 receiving a pension

According to the LFS 2012 *ad hoc* module, some 26% of men in the EU aged 50-64 – i.e. before reaching 65, which was the official retirement age in the majority of EU Member States at the time – received some kind of pension or benefit in 2012 (see Annex Table A.1). This includes unemployment and disability benefit as well as old-age pensions, the former two being effectively used in some countries as a form of early-retirement pension, 'disability' being defined widely to cover those with difficulty in finding a job and the unemployed not necessarily being expected actively to look for work. The proportion varied from 35-36% in France and Slovenia and over 30% in Estonia, Greece, Luxembourg and Malta, to under 15% in Ireland, the Netherlands and Sweden.

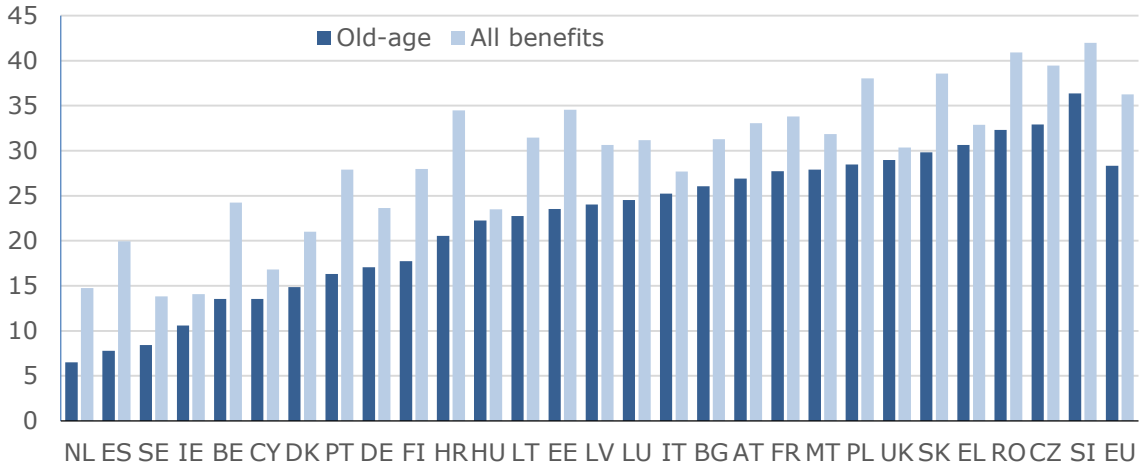
A slightly larger proportion of women aged 50-64, 31%, were also in receipt of social benefits (Annex Table A.2). In this case, the largest proportions were in the Czech Republic, Romania, Slovenia and Slovakia at 48-49%, followed closely by Poland (47%), reflecting the relatively low retirement age of women in these countries. The smallest

proportions, at around 15% or just below, were again in Ireland, the Netherlands and Sweden, together with Cyprus.

The focus here and below is on those in receipt of old age pensions, defined to cover all types, including occupational, personal or other schemes, but excluding disability and unemployment benefits, survivor's pension or other kinds of benefit not linked to old age. This is motivated by the fact that the main point of interest is the relationship between the receipt of a pension and employment. Disability benefits and unemployment benefits, which as noted above serve as a form of early-retirement pension in some countries[5], are, accordingly, excluded because in these cases (or in most of them at least) receipt implies not working. Survivors' benefits are also excluded on the grounds that receipt is usually not under the control of the recipient, in the sense that it is not open to them to decide whether to take them or not – unlike old-age pensions as such, at least before reaching official retirement age.

The term 'pensions' below should, therefore, be interpreted as meaning 'old-age pensions'. The difference between those receiving any kind of pension or benefit and those receiving an old-age pension varies across countries, reflecting in part the extent to which disability or unemployment benefits are used as a substitute for early-retirement pensions. Over the EU as a whole, it amounted to around 8 percentage points, but in Spain, Belgium, Portugal, Croatia and Estonia, it was over 10 percentage points (Figure 3). On the other hand, in Hungary and the UK, the difference was under 2 percentage points.

Figure 3 Proportion of those aged 50-64 in receipt of old-age pensions and any kind of benefit (except family-related), 2012



Source: Eurostat, Labour Force Survey

Some 2.5% of men aged 50-54 reported being in receipt of old-age pensions across the EU as a whole. It was highest, at 7%, in the UK, but apart from Greece and Poland, this was the only country where the proportion was much above 3%[6]. The average proportion was smaller than in 2006, most especially in Germany, Portugal, Romania and Slovenia. Only in Greece, Lithuania and Luxembourg was there much of an increase, though there is a need to be cautious about the apparent change as noted above.

[5] Disability benefits were used as a means of encouraging older people to withdraw from the labour force in the Netherlands and the UK, in particular, in the 1980s and much of the 1990s.

[6] If all benefits, and not only old-age pension, are included, the proportion in the EU increases to just over 5%, the largest being in Estonia and Poland at just over 8% and the lowest in Cyprus and Hungary at less than 1%.The figures for the UK and Greece are increased by relatively little, by under 1 percentage point in both cases. The largest increases are to the figures for the three Baltic States, which are raised by around 6 percentage points or slightly more. See Table A.1 in the Annex.

Table 2 Proportion of men aged 50-69 receiving an old-age pension by age group, 2012 and change 2006-2012

	50-54	55-59	60-64	65-69	50-64	50-54	55-59	60-64	65-69	50-64
BE	1.5	5.7	42.1	97.7	30.8	-1.0	-11.5	-6.4	5.9	-2.7
BG	3.2	12.1	46.9	96.5	37.7	-1.3	-8.1	-13.8	-0.1	-6.4
CZ	0.9	2.7	60.5	98.3	38.5	0.0	-4.7	-6.6	5.7	5.4
DK	0.3	1.0	42.0	93.0	31.5	-1.3	-2.7	1.2	23.7	6.4
DE	3.1	11.1	41.8	97.0	34.9	-5.6	-9.7	-22.7	-1.4	-14.9
EE	1.4	8.2	56.4	99.3	34.0	-0.1	0.9	-6.9	0.2	-4.0
IE	2.1	10.0	25.3	83.2	26.5	-0.2	0.4	-0.7	10.6	4.0
EL	5.9	22.7	59.9	89.6	42.6	2.5	4.9	11.4	1.2	6.0
ES	0.6	4.1	25.3	93.7	27.0	-1.1	-6.4	-8.1	4.6	-2.5
FR	2.1	11.3	76.0	96.9	43.0	-0.2	-12.5	-7.7	-0.9	1.5
HR	0.0	2.6	37.2	72.4	25.5					
IT	0.8	15.7	67.3	93.2	40.4	-1.8	-20.9	-3.1	0.8	-6.9
CY	0.0	5.3	45.5	98.5	31.1	-0.3	-0.6	11.5	0.3	2.9
LV	0.2	4.5	69.7	100.0	36.1	0.2	-3.5	-4.6	1.3	-2.6
LT	2.0	3.0	52.7	98.1	31.3	0.8	-1.4	-2.2	4.0	-5.1
LU	1.2	25.2	70.1	93.5	41.1	0.8	-3.2	-2.6	0.6	-3.8
HU	0.0	0.9	60.8	97.0	33.5	-3.1	-9.1	-23.6	-2.2	-8.0
MT	4.3	4.0	79.6	100.0	42.9					
NL	0.2	1.3	23.0	91.4	25.3	-0.6	-5.0	5.9		
AT	1.2	9.0	65.1	93.2	35.7	-0.5	-4.4	-0.9	-5.9	-5.7
PL	3.8	6.7	48.5	94.1	29.0	-1.0	-17.0	-8.7	0.7	-7.1
PT	1.0	13.5	44.1	92.6	34.0	-4.5	-9.5	-6.3	0.5	-5.3
RO	2.1	15.4	58.8	93.0	37.1	-4.2	-9.1	-17.7	-0.6	-8.3
SI	1.6	17.5	75.3	89.4	39.0	-4.5	-0.1	13.5	9.3	3.7
SK	1.5	3.6	57.3	97.1	31.3	0.0	-5.3	-20.1	0.1	-3.5
FI	1.3	4.7	44.9	96.3	33.8	0.4	-0.9	-1.7	-1.6	5.6
SE	0.1	2.4	25.0	96.9	40.6	-0.4	-5.2	-7.4	15.1	10.0
UK	6.8	24.2	52.6	95.5	42.3	-3.1	-0.9	2.1	-2.9	0.2
EU	2.5	11.2	52.0	94.9	36.2	-1.9	-9.5	-6.8	2.5	-3.6

Note: The figures relate to those receiving old-age benefit only and exclude receipt of survivors' benefit. HR and MT were not included in the 2006 survey. The figures for NL for the 65-69 age group in 2006 are implausibly low (only 26.2%) and so the change is not shown. There is equally a question-mark over the data for other countries where the change shown is large.
Source: Eurostat, Labour Force Survey, ad hoc module, 2006 and 2012

Around 11% of men in the 55-59 age group in the EU were in receipt of old-age pension in 2012, the figure rising to over 20% in Greece, Luxembourg and the UK. In the majority of countries, however, the figure was less than 10%, and was less than 2% in Denmark, Hungary and the Netherlands[7]. The proportion receiving pensions was smaller than in 2006 in almost all countries, the main exception being Greece again where there was an increase of 4.9 percentage points. This to some extent reflects an increase in the official retirement age in a number of countries, in particular in Italy, Hungary, and Romania, as well as in Belgium for women. However, it mainly reflects the widespread attempt to discourage early retirement.

In the 60-64 age group, still below the official age of retirement in most countries, 52% of men in the EU reported receiving a pension in 2012, the proportion being particularly large (above 75%) in France, Slovenia and Malta. By contrast, it was only around a quarter in Ireland, Sweden and the Netherlands[8]. Once again, the proportion was

[7] For the 55-59 age group, some 18% of men were in receipt of benefits of some kind, the proportion being just over 30% in Luxembourg, 27% in Romania, and around 24-25% in Estonia, Greece, Portugal, Slovenia and the UK. See Table A.1 in the Annex.
[8] The proportion of men in this age group receiving some kind of benefit or pension in the EU averaged 60%, i.e. just 8 percentage points higher than those receiving old-age pensions alone. The proportion ranged from

smaller than in 2006 in most countries, in many substantially so. On the other hand, there was an apparently large increase in Greece (once more), Cyprus and the Netherlands[9].

Among those aged 65-69, the proportion was 100% or close to it in most countries. The main exceptions are Croatia and Ireland (well below 90% in both cases), implying that a significant number of people in this age group were not in receipt of a pension[10]. In this case, the figures are higher in most cases than in 2006, with particularly large increases occurring between the two years in Denmark, Ireland, Sweden, Belgium, the Czech Republic and Slovenia[11].

For women, the proportion of those aged 50-64 receiving a pension in the EU was slightly larger than for men (by 2 percentage points, Table 3). This reflects their lower retirement age in a number of countries (see Table 1 above).

Table 3 Proportion of women aged 50-69 receiving an old-age pension by age group, 2012 and change 2006-2012

	50-54	55-59	60-64	65-69	50-64	50-54	55-59	60-64	65-69	50-64
BE	1.0	3.0	40.9	91.6	24.8	-1.6	-7.8	-13.0	0.0	-5.1
BG	0.3	7.3	75.3	98.1	47.6	-1.7	-25.6	-17.6	-0.4	-9.3
CZ	0.0	26.9	93.3	99.3	57.1	-0.9	-20.8	0.2	2.8	1.8
DK	0.2	1.4	46.5	95.4	35.6	-2.3	-3.4	-10.1	36.4	8.6
DE	3.0	9.1	44.9	97.9	33.7	-5.4	-10.7	-26.4	0.3	-15.3
EE	0.3	4.8	72.6	98.8	41.1	-0.5	-14.7	-24.8	-1.1	-11.3
IE	1.3	7.6	21.2	74.4	19.5	-0.5	1.8	3.9	13.9	5.2
EL	11.9	32.8	57.9	90.9	46.8	8.5	13.3	19.0	-0.1	9.3
ES	0.3	1.2	20.2	73.8	17.9	-1.2	-4.1	1.3	6.2	0.2
FR	1.8	8.0	70.2	96.7	38.8	0.0	-7.0	-2.9	0.8	4.4
HR	0.6	23.6	61.9	78.9	38.5					
IT	0.6	9.3	68.3	90.8	35.3	-1.8	-14.1	-8.2	1.2	-7.1
CY	0.0	3.1	36.2	95.8	25.7	0.0	-0.9	10.7	18.5	4.8
LV	1.5	7.3	72.7	100.0	42.0	-0.1	-6.8	-23.1	1.0	-8.4
LT	0.1	5.3	87.1	99.2	44.0	-0.4	-2.0	-5.6	1.1	-7.6
LU	2.3	13.7	57.6	87.6	32.0	1.4	5.9	9.8	5.6	10.1
HU	0.1	10.2	69.3	97.7	41.4	-2.1	-25.4	-26.9	-1.8	-13.2
MT	1.2	1.2	86.4	86.3	35.7					
NL	0.3	1.0	15.9	85.7	17.6	-1.3	-4.7	0.8		7.8
AT	1.2	24.4	86.6	96.1	44.4	0.7	-11.1	-4.0	0.2	-6.1
PL	1.3	27.8	91.0	93.8	48.5	-11.3	-39.6	3.0	7.0	-10.1
PT	0.4	11.0	32.0	85.8	29.7	-2.9	-6.5	-9.8	-0.2	-4.4
RO	2.6	31.7	80.5	89.9	50.9	-3.8	-19.9	-7.7	-0.7	-6.6
SI	5.1	46.2	89.2	88.4	51.8	-1.2	-1.1	15.9	13.5	7.3
SK	0.5	26.6	96.0	99.3	52.1	-1.8	-44.3	-1.4	0.9	-9.2
FI	0.1	2.8	47.0	95.8	35.2	0.1	-2.6	-6.3	-3.4	3.9
SE	0.2	2.1	23.9	96.8	39.7	-0.5	-3.9	-5.6	14.0	6.8
UK	4.3	14.7	79.0	96.5	45.4	0.4	-0.9	-14.7	-2.2	-2.5
EU	1.9	12.5	62.5	93.5	38.1	-2.3	-11.9	-9.4	2.5	-4.9

Note: See Notes to Table 1.
Source: Eurostat, Labour Force Survey, ad hoc module, 2006 and 2012

At the same time, there are a number of countries (12 of the 28) where the proportion was smaller than for men, reflecting the fact that not all women have working careers

83% in Slovenia, 78% in France and around 74-75% in Latvia, Luxembourg and Austria to only around 31-32% in Ireland, the Netherlands and Sweden – see Annex Table A.1.

[9] It should be noted that the EU-SILC for 2006 and 2012 shows a significant increase, though smaller, for Greece but not for Cyprus.

[10] The EU-SILC also shows a figure of below 90% in Ireland in 2012, but not in the Netherlands where 100% are recorded as receiving an old-age pension.

[11] The EU-SILC also shows increases, though again on a much smaller scale in all of these countries except Denmark.

and in many cases have to rely on their spouse's pension. This was especially the case in Ireland, Spain, Luxembourg, Malta and the Netherlands; though whereas Ireland and Malta are countries where the participation of women in the labour market is relatively low, this is less the case in the other three countries.

For the 50-54 age group, however, the proportion of women receiving a pension in 2012 was smaller than for men both overall, if only marginally (2% as opposed to 2.5%), and in the majority of countries, the main exception being Greece, where 12% of women reported having a pension[12]. As in the case of men, the proportion in receipt was smaller than in 2006 in most countries, the main exception again being Greece where there was an apparent large increase between the two years[13].

The proportion of women aged 55-59 and, more especially, aged 60-64, receiving a pension was larger than for men. This reflected their earlier retirement age in some countries, particularly for the 60-64 age group. . In the Czech Republic and Slovakia, in particular, around 95% of women in the latter age group were in receipt of a pension, and in Lithuania, Malta, Austria and Slovenia, over 85%. Nevertheless, the figures for both age groups were smaller in 2012 than in 2006 in most countries, though in Greece and Luxembourg, there was an apparent increase for the 55-59 age group; and in these two countries, plus Cyprus and Slovenia, for the 60-64 age group as well[14].

For the 65-69 age group, the relative number of women in receipt of pensions in the EU in 2012 was slightly smaller than for men and there were more countries where the figure was less than 90% - in Croatia it was less than 80%. As in the case of men, the proportion was larger than in 2006, almost certainly reflecting the increased number of women pursuing working careers.

Mean age of receipt of first pension

The average age when men and women received their first pension was around 59 in the EU in 2012, slightly above for men and slightly below for women (Table 4). The age was highest in Sweden (just under 64 for both men and women) followed by the Netherlands and Denmark, countries where employment rates were relatively high among older age groups. Another 11 countries had an age for men above 60 as did another 6 for women. The average age for men was lowest in Italy (just under 58) and lowest for women in Slovenia (just over 55).

The order of countries ranked in these terms, it should be noted, differs from the rank order in terms of retirement age, or more precisely, the age of withdrawing from the labour force. This is most notably the case in the UK where, according to OECD estimates, the effective age of men withdrawing from the labour force is 64, 6 years older than the average age of receiving a first pension and close to the top of the EU ranking in terms the effective age of retirement, rather than close to the bottom[15]. Similarly, Portugal has the oldest age of withdrawal from the labour force of all EU countries, but the average age of receiving a pension is much the same as the EU average. On the other hand, in both Finland and Spain, the average age of first pension receipt is relatively high, but the effective age of withdrawal is relatively low. This demonstrates that there is little relationship between the age at which people begin to receive a pension and the age of retirement, the implication being that a significant number of people continue to work after they have received a pension.

In a number of countries, the age for women was older than that for men, reflecting the larger number of men in these cases drawing a pension at a relatively young age. In

[12] A larger proportion of women than men in the EU received some kind of pension or benefit (just over 6% as against just over 5%). As in the case of men, the difference between the proportion of women receiving any kind of benefit and those receiving an old-age pension was especially large in Estonia, Lithuania (7-8 percentage points) and Slovakia (9 percentage points), while it was below 2 percentage points in Greece, Ireland and Malta. See Annex Table A.2 for details by age group.

[13] A significant increase, though smaller, is also reported by the EU-SILC.

[14] For Greece for both age groups, the EU-SILC also shows a significant increase in women receiving pensions between the two years, as it does for Luxembourg and Slovenia for those aged 60-64.

[15] See OECD, *Pensions at a glance, 2015,* Figs 7.8 and 7.9.

some cases, France and Spain in particular, these are also countries in which the effective age of women withdrawing from the labour force is also higher than for men; in others (Portugal and the UK), not. Again the lack of a relationship between the age of drawing a pension and the effective age of retirement implies that many women continue working even though they receive an old-age pension.

Between 2006 and 2012, the average age of receipt increased for both men and women in almost all countries, the only exceptions being Luxembourg, Slovenia and Greece. The increase was particularly marked for women in the three Baltic States, Hungary and the Netherlands (2-3 years in each case). In the first 4 countries, this is associated with the age of retirement being increased for women between these two years by a year or two, though this was not the case for the Netherlands, where it remained at 65.

Table 4 Mean age of receipt of first pension by men and women, 2012 and change 2006-2012 (years of age)

	Mean age		Change 2006-2012	
	Men	Women	Men	Women
SE	63.6	63.6	1.3	0.7
NL	62.7	62.7	1.1	2.8
DK	62.2	61.7	0.6	0.8
ES	61.7	61.9	1.0	0.6
FI	61.4	61.5	0.4	0.2
CY	61.2	61.9	0.4	0.8
DE	61.2	61.1	0.4	0.5
BE	60.9	60.6	0.7	1.2
IE	60.9	60.8	0.1	0.0
CZ	60.8	57.7	0.8	1.4
EE	60.7	58.7	0.9	2.1
LT	60.6	58.9	0.7	2.4
LV	60.5	58.9	0.9	2.7
HR	60.1	56.0		
HU	59.8	57.5	1.5	2.1
SK	59.8	56.1	0.7	1.1
PT	59.6	60.3	1.1	1.2
AT	59.3	57.8	0.3	0.8
MT	59.1	58.8		
LU	58.7	59.3	-0.6	-0.9
FR	58.6	59.3	0.0	0.2
PL	58.5	56.1	0.0	0.0
SI	58.3	55.2	-3.9	-4.6
BG	58.1	57.0	0.8	1.8
RO	58.0	56.0	1.2	0.8
UK	58.0	58.6	0.5	0.2
EL	58.0	57.5	-1.2	-2.2
IT	57.8	58.4	0.7	1.1
EU	59.4	58.8	0.4	0.6

Source: Eurostat EU-LFS ad hoc module 2006 and 2012

Economic activity of those in receipt of a pension

As implied by the employment rates examined earlier, a large number of men and women receiving a pension are, nevertheless, in employment. In 2012, 56% of men aged 50-54, and 53% of women, in receipt of a pension were recorded as being employed by the LFS (which means that they worked for at least one hour during the reference week or were temporarily absent from work) (Tables 5 and 6). The proportions, however, vary markedly between countries. The majority of men were employed in the UK, Slovakia, Germany and Finland, but only 3% in Greece and less than 1% in Italy (in Spain none of the men receiving a pension was employed in 2012).

On the other hand, more than half of women were employed in the UK and Germany while the proportion of women employed among those receiving a pension was 20% in Spain, 15% in Romania and just below 3% in Greece.

In most countries, relatively few of the people in receipt of pensions were unemployed, in the sense of being available for work and actively seeking a job, though, in general, unemployment rates were low among older people (averaging 6.2% in the EU). In the 50-54 age group, the main exception is Spain, where a substantial proportion of both the men and women concerned were unemployed in 2012. This is likely to reflect the effect of the crisis (the unemployment rate averaged close to 20%), though in countries also affected relatively hard (Greece, in particular, where the unemployment rate averaged 18%), unemployment among those receiving pensions was low. In most countries, therefore, most of the men and women concerned who were not in employment were inactive.

Again, the proportion of pension recipients who were unemployed was relatively small everywhere, apart from Estonia, the Netherlands, Cyprus and the Czech Republic among men aged 55-59;Spain among women aged 50-54; and Latvia among women aged 55-59

Table 5 Proportion of men in receipt of a pension who were employed or unemployed in 2012 (% of each age group receiving a pension)

	50-54		55-59		60-64		65-69	
	Empl	Unempl	Empl	Unempl	Empl	Unempl	Empl	Unempl
BE	*31.6*	*0.0*	17.7	0.0	7.9	0.5	6.5	0.2
BG			27.9	3.3	14.4	1.1	8.9	0.0
CZ	*33.2*	*0.0*	24.9	5.9	17.8	1.4	14.4	0.8
DK					15.0	1.0	20.0	0.0
DE	59.3	0.0	31.0	1.5	16.1	0.2	15.5	0.2
EE			*36.3*	*15.3*	39.8	0.9	28.1	0.9
IE	*41.8*	*6.3*	21.4	4.8	20.5	2.1	17.1	0.5
EL	2.8	5.1	3.0	1.8	2.1	1.2	2.6	0.0
ES	0.0	14.3	2.4	2.3	5.6	0.1	1.6	0.0
FR			16.0	2.7	9.6	0.4	5.4	0.4
HR					9.0	0.0	7.5	0.6
IT	0.8	0.0	18.7	0.0	12.3	0.3	10.3	0.1
CY			*12.5*	*6.3*	31.9	1.4	22.4	0.8
LV					23.9	5.5	19.6	2.5
LT					27.5	0.0	20.3	0.3
LU			4.8	0.7	6.8	0.3	7.0	0.0
HU			*8.3*	*0.0*	11.6	0.2	8.8	0.2
MT					21.8	0.0	16.2	0.6
NL			*41.1*	*8.7*	20.5	1.5	17.1	1.2
AT			12.8	0.0	11.6	0.0	10.3	0.0
PL	49.9	3.8	35.9	2.0	17.0	0.4	12.9	0.5
PT			26.8	4.2	22.5	1.7	27.7	0.8
RO	*31.0*	*0.0*	17.6	2.6	22.0	0.3	25.2	0.1
SI			13.1	0.8	8.1	0.0	8.8	0.0
SK	*61.6*	*0.0*	31.4	3.0	12.7	0.3	5.7	0.0
FI	*57.0*	*0.0*	51.5	1.8	30.5	0.0	14.9	0.1
SE			*66.7*	*2.4*	44.1	1.1	39.9	1.3
UK	81.4	5.6	65.5	4.4	46.3	3.4	24.2	1.4
EU	55.9	3.6	32.2	2.4	17.6	0.8	14.1	0.5

Note: Blanks indicate data unreliable because of too few observations. Figures in italics indicate data of uncertain reliability because of small number of observations.
Source: Eurostat, Labour Force Survey ad hoc module, 2012

Among those aged 60-64, i.e. approaching official retirement age in most countries, the average proportion of pension recipients in work falls to below 20% in the EU for both men and women. However, it remains relatively large in Sweden and the UK (above

40% for men and 34-35% for women) as well as in Estonia (just under 40% both for men and women) and to a lesser extent in Cyprus and Finland for men, and in Lithuania for women (around 30%). But these 6 countries apart, it is less than 30% in all Member States and less than 15% in most of them.

Given that unemployment was also low in most countries, the rate of participation in the labour force was, therefore, relatively low as well, so that the large majority of people in this age group receiving pensions had withdrawn from the labour market virtually throughout the EU – Estonia, Sweden and the UK being the main exceptions.

Relatively few men aged 65-69 – i.e. after passing the official retirement age in most countries – continue to work after receiving a pension. In 2012, the figure was less than 15% on average in the EU and 10% or less in 12 Member States. In 4 countries, on the other hand, Estonia, Portugal, Romania and the UK, the figure was around 20% or more in 2012, and in Sweden, 33%.

Table 6 Proportion of women in receipt of a pension who were employed or unemployed in 2012 (% of each age group receiving a pension)

	50-54		55-59		60-64		65-69	
	Empl	Unempl	Empl	Unempl	Empl	Unempl	Empl	Unempl
BE			*16.3*	*0.0*	4.5	0.0	3.9	0.0
BG			13.6	0.0	10.1	0.9	4.2	0.2
CZ			12.4	1.3	14.5	0.8	7.4	0.4
DK					10.8	0.0	7.3	0.4
DE	54.1	2.2	46.6	0.7	14.3	1.1	8.4	0.1
EE					38.6	0.6	27.2	1.2
IE	*29.7*	*0.0*	20.3	1.6	15.1	0.4	10.2	0.0
EL	2.9	2.4	0.6	0.2	0.6	0.3	1.5	0.0
ES	*20.4*	*36.0*	0.0	3.4	3.7	0.5	0.2	0.0
FR			19.3	0.4	8.1	0.6	5.5	0.1
HR			*7.5*	*0.0*	6.1	0.0	7.5	0.0
IT	*29.4*	*0.0*	11.7	0.0	8.7	0.2	5.0	0.2
CY			*0.0*	*0.0*	12.3	0.0	11.8	0.0
LV			*56.1*	*9.8*	26.2	3.7	17.9	0.7
LT					31.9	1.2	14.1	0.0
LU			*9.6*	*0.0*	8.3	0.0	7.4	0.0
HU			8.2	0.0	8.9	0.0	3.6	0.3
MT					15.3	2.0	*6.8*	*0.0*
NL			*36.4*	*3.7*	19.2	0.6	14.3	0.7
AT			12.2	0.4	13.4	0.0	8.9	0.0
PL	*43.2*	*2.0*	16.9	1.1	13.0	0.3	8.6	0.2
PT			12.9	2.0	6.0	0.7	19.0	1.2
RO	*15.2*	*4.9*	13.2	0.1	20.5	0.0	19.6	0.0
SI	*34.2*	*4.4*	8.4	0.6	7.9	0.5	3.5	0.0
SK			16.0	1.2	8.1	0.8	3.0	0.2
FI			56.2	3.3	28.3	0.9	8.4	0.2
SE			*78.8*	*0.0*	34.3	0.8	27.1	2.8
UK	77.5	4.5	55.4	2.9	35.8	1.0	17.6	0.4
EU	52.8	3.7	24.3	1.1	16.1	0.6	9.9	0.3

Note: Blanks indicate data unreliable because of too few observations. Figures in italics indicate data of uncertain reliability because of small number of observations.
Source: Eurostat, Labour Force Survey ad hoc module, 2012

For women aged 65-69, the relative number of those receiving pensions who were still at work was smaller than for men in nearly all countries (the exceptions are France, Croatia and Luxembourg, where the proportions are very similar), only 10% on average in the EU. The proportion was above the average only in 10 Member States and in only in 6 (UK, Latvia, Portugal, Romania, Sweden and Estonia) did it exceed 15%.

Accordingly, in most countries in the EU, the great majority of men and women aged 65-69 who receive a pension – which as seen above is nearly all of them – are no longer economically active. In a few countries, however, most notably Sweden, the number is significant, even though it still represents a minority. Nevertheless, there is an upward trend in the numbers involved, which is partly a result of the growing number of people in this age group, but also partly a consequence of an increasing employment rate[16].

Hours worked by those employed receiving pensions

The question now arises as to what extent the men and women receiving pensions work fewer hours. This could either be because the pensions concerned are seen as a means for people to make a gradual transition from employment into retirement - and indeed in a few countries partial-retirement schemes are in operation to enable people to do this - or simply because receipt of a pension means that people no longer have to work so many hours to attain a particular level of income. Either way, it raises a question of whether and to what extent the people reducing their hours of work do so only because a pension is available, and they would have continued to work longer hours if it were not available; or if they were unable to work part-time, they would have stopped working altogether. In other words, the question is whether partial-pension schemes, or the availability of an early-retirement pension, are an effective way of keeping people in employment or merely result in people working less than they otherwise would. These questions, unfortunately, cannot be answered from the data collected by the *ad hoc* module: but the evidence on how far men and women in receipt of pensions who continue in employment reduce their working hours is, nevertheless, important.

Although a significant number of men and women receiving pensions are in employment, many of them work only part-time, in some cases only a few hours a week. However, men aged 50-54 in receipt of pension and in employment worked much the same number of hours a week on average in the EU as those not receiving a pension (around 35 hours, although the relatively small number of observations means that the data are generally unreliable for at individual country level). This implies that for the people concerned receiving a pension did not signal the end of their working careers, but perhaps a change from the job for which they received a pension (which might, for example, have been in the armed forces or in the civil service) to another. On the other hand, men aged 55-59 receiving pensions worked fewer hours a week than those not in receipt (an average of 5 hours a week in the EU as a whole), perhaps reflecting a step towards retirement by working less. This was the case in all Member States for which there are data, except those where the figures are relatively uncertain because of the small number of people involved (Table 7).

It is even more the case for men aged 60-64, among whom those receiving pensions worked on average 10 hours a week less than those not in receipt. Although the size of the difference varied between Member States, in all of them men with a pension worked fewer hours than their counterparts without, the difference exceeding 10 hours a week

[16] According to a Eurofound report, '*almost five million people over 65 were in employment in 2014*', which is '*a remarkable increase of 48% from 3.3 million in 2004 to 4.9 million in 2014*'. While the increase is substantial, it is also the case that the number of people in this age group increased considerably over the period, by 13 million, which accounts for a significant part of the increase. It is also reported that '*the employment rate of people aged 65-69 has reached 11.7%*', which is an increase of around three percentage points in 10 years, and which, as described above, is less than for those aged 60-64 and much less than for those aged 55-59. It is also reported that '*earnings from work make up about 7% of the individual income of all people aged 65+, but for about two-fifths, it represents over 80% of their income'*. It is not clear where these figures come from and there is an obvious inconsistency between them (i.e. it is implausible that the average accounted for by employment income is 7%, and yet for 40% of people it is over 80%). The EU-SILC, in practice, indicates that in the 2013 income year (i.e. based on the EU-SILC for 2014), income from employment represented some 3.5% of the total income of those aged 65 and over, that around 91% of people in this age group had no income from employment at all, and for just 1% it represented 80% of their income or more. See 'The changing meaning of 'working age', *Evidence in focus*.
http://ec.europa.eu/social/main.jsp?langId=en&catId=1196&newsId=2500&furtherNews=yes

in 13 countries and 15 hours a week in 8 of them. It should be noted that for most of the lower-income countries, the difference is relatively small.

For women, the difference in hours worked between those with and those without a pension tends to be smaller than for men because women on average work shorter hours. Nevertheless, the difference is common for all age groups, including for those aged 50-54 (among whom women receiving pensions worked an average of just over 6 hours a week less than those not in receipt).

Table 7 Average usual hours worked a week by men aged 55-69 employed and receiving pensions and not receiving pensions, 2012 (% each age group)

	Receiving pensions			Not receiving pensions			Difference		
	55-59	60-64	65-69	55-59	60-64	65-69	55-59	60-64	65-69
BE		*21.0*	26.7	41.3	43.3			*-22.2*	
BG		*40.7*	*38.4*	41.1	40.9			*-0.2*	
CZ	*45.5*	34.5	34.0	42.0	41.5	*45.4*	*3.5*	-7.0	*-11.4*
DK		22.3	25.0	38.6	39.2	37.3		-17.0	-12.3
DE	32.0	20.4	25.2	41.0	41.9		-8.9	-21.5	
EE		37.8	37.3	40.3	40.8			-3.0	
IE	*38.5*	29.6	35.9	41.2	40.5	42.0	*-2.6*	-10.9	-6.1
EL		*29.5*	40.3	45.6	45.3	47.0		*-15.8*	-6.7
ES		24.1	31.8	42.1	42.5	43.6		-18.4	-11.8
FR		28.9	*28.8*	41.5	43.5			-14.6	
HR		*30.9*	*25.0*	40.2	40.2	*41.6*		*-9.4*	*-16.6*
IT	38.7	38.4	36.6	40.2	40.1	39.2	-1.5	-1.7	-2.6
CY		37.9	31.3	42.6	41.3			-3.3	
LV		37.0	*38.3*	38.8	39.7			-2.7	
LT		34.7	33.8	40.5	39.0			-4.3	
LU		*16.7*	*23.7*	40.9	42.0			*-25.4*	
HU		31.0	29.2	40.7	39.4			-8.4	
MT		*31.9*	*28.3*	41.2	*41.0*			*-9.1*	
NL	*21.4*	20.5	19.2	38.2	35.6	22.8	*-16.7*	-15.1	-3.6
AT		23.7	25.0	44.1	43.6			-19.9	
PL	31.6	32.9	29.3	42.7	42.2	*41.0*	-11.1	-9.2	*-11.8*
PT	27.6	26.2	29.2	41.8	40.9		-14.2	-14.7	
RO	38.0	35.6	34.2	40.2	39.9	38.4	-2.2	-4.3	-4.3
SI	*43.9*	*29.6*	*44.6*	42.7	*42.1*	*36.5*	*1.2*	*-12.5*	*8.1*
SK		39.9	33.1	41.2	40.9			-1.0	
FI	32.3	28.3	24.9	40.7	39.0	*41.2*	-8.4	-10.6	*-16.3*
SE		29.7	23.0	40.0	39.2	38.9		-9.5	-15.9
UK	38.1	32.3	28.2	43.0	41.0	40.4	-5.0	-8.7	-12.1
EU	36.5	30.9	28.3	41.4	41.2	41.4	-4.9	-10.3	-13.2

Note: Blanks indicate data unreliable because of too few observations. Figures in italics indicate data of uncertain reliability because of small number of observations.
Source: Eurostat, Labour Force Survey ad hoc module, 2012

For women aged 55-59, those with pensions worked fewer hours than those without in all Member States, except Italy and the Netherlands, the difference averaging some 7 hours in the EU as a whole (Table 8). For women aged 60-64, those with pensions worked around 6.5 hours less a week than their counterparts without and fewer hours in all countries, apart from Italy and Cyprus. For women of 65-69, the pattern was similar, except the difference between the two groups tended to be larger (10 hours a week on average) and in this case was common to all countries for which reliable data is available except for Greece. Again, however, the difference tends to be relatively small for the lower-income countries.

Table 8 Average usual hours worked per week by women aged 55-69 employed and receiving pensions and not receiving pensions, 2012 (% each age group)

	Women receiving pensions			Women not receiving pensions			Difference		
	55-59	60-64	65-69	55-59	60-64	65-69	55-59	60-64	65-69
BE				30.6	31.6				
BG		36.9	*35.3*	40.2	39.4			-2.6	
CZ	33.7	30.0	26.6	40.0	39.0	*36.4*	-6.3	-9.1	*-9.8*
DK		19.3	20.0	34.6	32.7	*31.2*		-13.4	*-11.3*
DE	19.8	15.2	14.4	28.8	29.2		-9.0	-14.0	
EE		34.2	28.9	38.2	37.4			-3.1	
IE	*26.2*	*22.4*	19.4	28.6	25.9	27.4	*-2.5*	*-3.5*	-8.0
EL			*42.3*	40.5	40.1	40.2			*2.1*
ES		*24.0*		35.9	35.9	37.3		*-11.9*	
FR		*21.0*	*20.6*	33.9	34.3			*-13.4*	
HR		*21.5*	*16.5*	39.0	*40.4*			*-19.0*	
IT	33.9	32.5	29.2	32.5	32.2	33.4	1.4	0.4	-4.2
CY		*38.1*	*29.3*	37.9	36.0			*2.1*	
LV		34.7	34.1	38.1	39.1			-4.4	
LT		36.1	29.0	38.6	39.5			-3.4	
LU				31.4	31.2				
HU	*33.6*	28.0	26.8	38.3	34.7		*-4.8*	-6.8	
MT				33.6					
NL	*24.7*	19.3	10.6	24.4	22.2	*20.0*	*0.3*	-2.9	*-9.4*
AT	*17.5*	22.7	24.8	32.5	34.2		*-15.0*	-11.4	
PL	28.8	28.2	25.9	39.2	38.5	*35.6*	-10.4	-10.3	*-9.7*
PT			25.4	36.3	33.6	27.5			-2.1
RO	34.0	31.6	31.8	38.7	34.9	32.6	-4.6	-3.2	-0.8
SI	*22.8*	*30.7*	*27.3*	40.5	*42.7*	*39.5*	*-17.7*	*-11.9*	*-12.2*
SK	35.6	34.1	*27.3*	39.0	*39.6*		-3.3	*-5.4*	
FI	*21.8*	22.8	17.6	36.8	35.3	*41.1*	*-15.0*	-12.5	*-23.5*
SE		28.2	19.5	36.1	34.8	32.0		-6.6	-12.5
UK	28.7	24.2	19.6	31.8	31.1	*32.9*	-3.0	-6.9	*-13.3*
EU	26.6	25.4	21.5	33.4	32.1	31.8	-6.8	-6.6	-10.3

Note: Blanks indicate data unreliable because of too few observations. Figures in italics indicate data of uncertain reliability because of small number of observations.

Source: Eurostat, Labour Force Survey ad hoc module, 2012

Men and women receiving pensions working part-time

As the figures for average hours worked imply, men and women receiving pensions are much more likely to work part-time than those not in receipt and this applies to all age groups. For men aged 55-59, around 28% of those with pensions worked part-time as opposed to just under 5.5% of those without pensions, with again just below 4% working less than 10 hours a week as against fewer than 1% of those without. (The number of observations is too small to give a reliable estimate of the relative number working part-time in this age group at individual Member State level.)

For men aged 60-64 (for whom the sample size is larger), almost 44% of pension recipients in the EU worked part-time hours, 5.5 times more than the proportion of non-recipients, and 9% worked less than 10 hours (Table 9). The relative number working part-time was particularly high in Belgium, Denmark, Luxembourg, Germany and the Netherlands (even in the Netherlands, where part-time working is most important, the difference is over three times). Moreover, a significant number of these in each case worked less than 10 hours a week. This was also the case in Spain and Austria, where over 25% of pension recipients worked less than 10 hours. By contrast, in Bulgaria and Slovakia, less than 10% of men in this age group with a pension worked part-time, and in Estonia the figure was less than 15%.

Table 9 Men aged 60-69 receiving a pension and working part-time, grouped hours per week, 2012 (% of men employed and receiving pensions in each age group)

	60-64				65-69			
	<10	10-19	20-29	**P-time**	<10	10-19	20-29	**P-time**
BE	*26.6*	*35.1*	*6.9*	***68.6***	17.5	26.6	13.1	**57.1**
BG	*0.0*	*0.0*	*2.2*	***2.2***	*0.0*	*2.3*	*11.9*	***14.2***
CZ	3.6	7.0	18.0	**28.6**	1.5	11.4	20.5	**33.4**
DK	15.6	30.1	29.3	**75.1**	20.7	21.1	12.9	**54.7**
DE	22.6	38.7	15.9	**77.3**	19.5	28.7	9.6	**57.7**
EE	0.0	1.8	12.6	**14.4**	2.0	4.0	10.7	**16.6**
IE	10.2	21.4	16.4	**48.0**	4.2	10.1	21.4	**35.7**
EL	*9.7*	*12.2*	*27.0*	***48.9***	5.6	7.8	8.0	**21.4**
ES	26.7	16.6	3.5	**46.7**	0.0	21.9	20.0	**41.9**
FR	7.1	27.8	17.8	**52.7**	*6.9*	*29.4*	*21.4*	***57.7***
HR	*12.4*	*8.2*	*10.9*	***31.5***	*0.0*	*20.7*	*45.0*	***65.7***
IT	2.6	6.6	13.3	**22.5**	4.3	8.7	14.7	**27.7**
CY	2.3	9.1	9.1	**20.5**	6.9	13.8	19.0	**39.7**
LV	0.0	0.0	16.6	**16.6**	*2.4*	*0.0*	*13.0*	***15.4***
LT	0.0	1.0	21.4	**22.5**	5.7	1.6	21.2	**28.5**
LU	*45.8*	*20.4*	*10.8*	***77.0***	*20.0*	*34.3*	*3.5*	***57.8***
HU	3.0	8.3	30.3	**41.6**	2.9	9.7	31.2	**43.8**
MT	*5.3*	*10.5*	*23.3*	***39.1***	*7.7*	*26.8*	*23.3*	***57.7***
NL	32.5	14.6	23.0	**70.1**	34.6	26.6	12.6	**73.7**
AT	29.1	18.3	14.5	**61.9**	24.4	22.1	15.0	**61.5**
PL	4.1	9.4	23.0	**36.6**	5.4	14.0	27.0	**46.3**
PT	11.1	27.8	17.5	**56.4**	12.7	20.7	17.0	**50.3**
RO	0.3	3.3	23.8	**27.4**	0.2	5.6	20.4	**26.2**
SI	*4.8*	*24.8*	*18.0*	***47.6***	*10.4*	*3.2*	*7.6*	***21.3***
SK	0.0	2.3	7.3	**9.6**	9.3	4.7	14.7	**28.7**
FI	5.1	22.1	33.2	**60.5**	17.1	23.8	19.6	**60.5**
SE	6.6	13.7	22.2	**42.6**	17.8	24.4	22.6	**64.8**
UK	9.2	12.7	18.7	**40.7**	13.9	17.7	21.8	**53.4**
EU	9.3	16.2	18.2	**43.7**	13.3	19.6	17.7	**50.6**

Note: Blanks indicate data unreliable because of too few observations. Figures in italics indicate data of uncertain reliability because of small number of observations.
Source: Eurostat, Labour Force Survey ad hoc module, 2012

Among men aged 65-69, around half of pension recipients in employment in the EU in 2012 worked part-time, around a quarter of these working less than 10 hours a week. Nevertheless, as with other age groups, there was a marked difference in the extent of part-time working across countries. While in 13 countries (all of them EU15 countries apart from Malta and Croatia), the proportion was over a half, in 9 countries, it was less than a third (all of them EU13 countries apart from Greece and Italy). Equally, there are 8 countries (all in the EU15) in which the proportion working less than 10 hours a week was over 15% and 10 where it was below 5% (all of them EU13 countries apart from Ireland, Spain and Italy). There is some relationship across countries, therefore, as might be expected, between the proportion working part-time and income levels – and pension and wage levels. In other words, how far people reduce their hours of work after receiving a pension seems to be linked to their income levels, or how far they can afford to work less.

Part-time working is more prevalent among women receiving pensions than among men, though equally the same is true of non-recipients. Nevertheless, as in the case of men, many more of the women in employment with pensions worked part-time in 2012 than those without. Among those aged 55-59, 51% of pension recipients in employment worked part-time in the EU as compared with 29% of non-recipients. (The sample size is too small to give a reliable indication of the figures for individual countries.)

Among women aged 60-64 (for which the sample size is bigger and there are fewer countries for which the reliability of the data is uncertain) 58% of those in the EU receiving pensions and in employment worked part-time as opposed to 34% of non-recipients. In 8 countries with available data (all, except Croatia, in the EU15), the proportion was over two-thirds and in the UK, just under two-thirds (Table 10). In most of these countries, over a quarter of pension recipients working part-time worked less than 10 hours a week. By contrast, in 5 countries (all EU13), fewer than 30% of recipients worked part-time. Equally, fewer than 6% of recipients worked less than 10 hours a week in 12 countries (all EU13 ones except Sweden).

Table 10 Women aged 60-69 receiving a pension and employed working groups of part-time hours per week, 2012 (% of women employed and receiving pensions in each age group)

	60-64				65-69			
	<10	10-19	20-29	**P-time**	<10	10-19	20-29	**P-time**
BE								
BG	0.0	3.8	13.2	**17.0**	*2.0*	*1.4*	*17.1*	***20.5***
CZ	5.8	9.8	27.1	**42.6**	11.2	13.4	30.9	**55.6**
DK	21.2	28.1	29.4	**78.7**	30.7	26.2	14.1	**71.1**
DE	33.6	43.1	8.6	**85.3**	42.9	31.4	9.0	**83.4**
EE	0.4	6.0	21.1	**27.5**	3.0	18.8	25.5	**47.4**
IE	*9.7*	*27.7*	*35.9*	***73.2***	26.7	30.9	27.6	**85.3**
EL					*5.5*	*0.0*	*10.0*	***15.5***
ES	*33.6*	*20.5*	*0.0*	***54.1***				
FR	*26.5*	*24.8*	*16.1*	***67.3***	*38.9*	*18.8*	*15.8*	***73.6***
HR	*32.7*	*7.2*	*42.1*	***82.0***	*17.6*	*33.6*	*37.8*	***89.0***
IT	7.3	13.4	14.3	**35.0**	9.5	15.2	24.1	**48.8**
CY	*0.0*	*0.0*	*0.0*	***0.0***	*0.0*	*21.1*	*21.1*	***42.1***
LV	0.0	1.1	30.0	**31.1**	0.0	1.9	28.9	**30.8**
LT	1.4	3.7	11.0	**16.1**	6.4	13.6	20.3	**40.4**
LU								
HU	4.5	14.2	26.1	**44.8**	12.1	15.5	21.6	**49.2**
MT								
NL	21.4	30.4	27.3	**79.1**	62.1	20.5	8.0	**90.5**
AT	34.5	17.5	16.2	**68.3**	19.8	22.4	17.7	**59.9**
PL	5.4	15.2	27.6	**48.1**	8.3	14.5	36.1	**58.8**
PT					23.8	23.3	13.8	**60.9**
RO	0.0	7.5	28.0	**35.6**	0.0	10.9	25.5	**36.4**
SI	*1.6*	*17.1*	*34.4*	***53.1***	*21.8*	*0.0*	*11.2*	***32.9***
SK	5.4	3.1	15.6	**24.2**	*12.7*	*20.2*	*11.2*	***44.1***
FI	9.5	24.5	47.0	**80.9**	35.6	26.3	20.0	**81.9**
SE	4.2	10.6	27.1	**41.9**	21.0	34.2	18.2	**73.4**

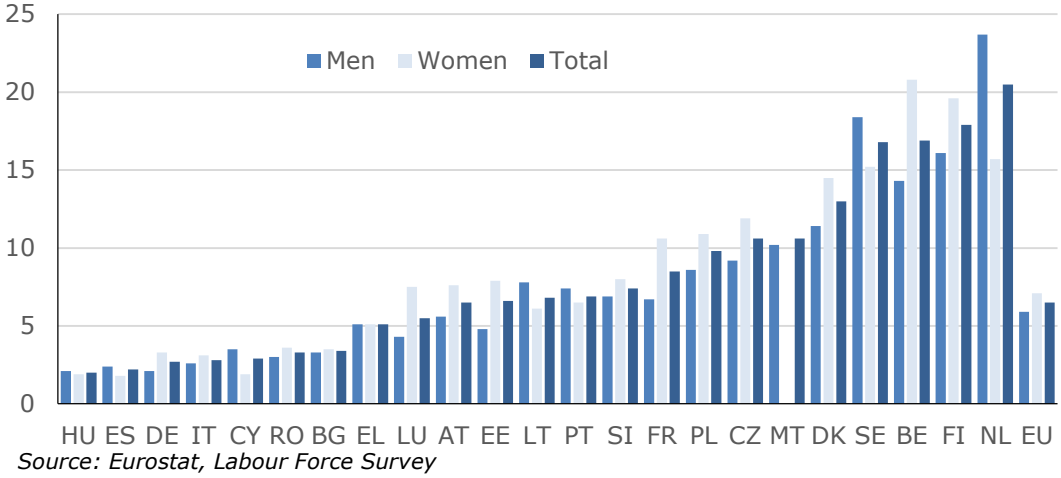
Note: No reliable data for LU and MT. Blanks indicate data unreliable because of too few observations. Figures in italics indicate data of uncertain reliability because of small number of observations.

Source: Eurostat, Labour Force Survey ad hoc module, 2012

Among women aged 65-69 receiving a pension, over two-thirds of those in employment in the EU worked part-time, and almost a quarter worked less than 10 hours. There are 10 countries – all EU13 ones apart from Greece and Italy - where the proportion working part-time was less than 50%, though in only 4 of these was it below 40%. Again, the results imply that income levels have a major effect on whether women receiving pensions work part-time or not.

The question of how far people reduced their working time as a move towards retirement was one addressed by the LFS *ad hoc* module. The responses indicate that only 6% of men across the EU did so and just 7% of women, with the proportion being above 10% for both men and women in only 7 Member States – the Czech Republic, Malta, Belgium, the three Nordic countries and above all the Netherlands (Figure 4).

Figure 4 Proportion of men and women aged 55-69 reducing working hours as a move towards retirement, 2012



Source: Eurostat, Labour Force Survey

It is interesting that, of these countries, only the three Nordic Member States had a scheme in place under which people can receive a partial pension after the age of 60 if they reduce their working time[17]. The only other countries to have a partial-pension scheme are France, Germany, Spain and Slovenia and while the proportion of people reducing their hours of work as a move towards retirement was slightly above average in France and Slovenia, in Spain and Germany it was among the smallest in the EU.

Occupations of those receiving a pension and in work

It is also of interest to examine the kinds of job that people do who continue to work after receiving a pension. This should a throw light on the extent to which the jobs that people continue to work in are non-manual as opposed to manual and, accordingly, entail less physical effort. It should also throw light on the extent to which people who receive a pension at a comparatively young age tend to do relatively arduous jobs that they then relinquish when they receive a pension; or how far, on the contrary, the jobs concerned tend to be relatively high–level ones, such as professional or technical occupations.

In practice, there are marked differences between countries in the occupations in which those receiving pensions and continuing to work are employed. These differences remain even after taking into account wide differences in the occupational composition of employment across the EU, most especially between the higher–income and lower–income countries, reflecting in turn differences in economic structure (e.g. if a relatively large proportion of people are employed in manufacturing, then a relatively large number are also likely to be employed in skilled and semi-skilled manual jobs). More specifically, those who continue to work tend to be employed in different occupations from those that their counterparts (receiving a pension but retired) were employed in before they withdrew from the labour force.

Among men aged 60-64, around 40% of those receiving a pension and in work were employed in high–level occupations, as managers, professionals or technicians (ISCO categories 1 to 3) in the EU in 2012. As against this, around 33% of those who were economically inactive were employed in this occupational group before they retired, i.e. some 7 percentage points less (Table 11). A larger proportion of those continuing to work, however, were also employed as elementary or agricultural workers (almost 11 percentage points larger). On the other hand, a smaller proportion were employed as skilled and semi-skilled manual workers and it is in these two occupational groups that

[17] In Belgium, legislation was passed in 1996 to introduce a partial-pension scheme but it has yet to be implemented.

the difference between those who continue to work and those who are retired is most pronounced.

Table 11 Difference in occupational division of men receiving pensions and in work relative to previous occupational division of men receiving pensions and economically inactive, 2012 (Percentage point difference)

	60-64					65-69				
	1-3	4	5	7-8	6-9	1-3	4	5	7-8	6-9
BE	*0.4*	*-12.8*	*-2.2*	*17.0*	*-1.5*	0.1	-7.0	8.9	-12.1	10.0
BG	*11.9*	*-1.9*	*14.6*	*-25.1*	*1.1*	*4.8*	*-2.5*	*22.3*	*-24.8*	*0.3*
CZ	16.5	-1.2	11.6	-27.5	0.6	18.8	2.0	8.8	-29.8	0.1
DK	-2.3	1.7	4.4	-11.2	7.9	-2.9	-2.5	1.5	-6.0	9.8
DE	0.7	0.2	11.2	-22.2	10.1	4.4	-1.3	0.6	-6.3	2.6
EE	14.3	0.0	5.1	-18.5	-0.9	12.5	1.6	2.1	-20.4	4.1
IE	13.2	-2.9	-0.9	-4.3	-1.1	-1.3	-2.5	2.9	-14.8	16.8
EL	*-20.1*	*-2.5*	*2.5*	*-46.4*	*67.5*	-16.8	-4.0	3.5	-26.8	44.4
ES	8.2	-11.5	-2.6	-1.0	7.2	36.5	-4.8	-5.3	-34.6	8.7
HR	*-39.4*	*-7.4*	*3.5*	*-31.0*	*75.2*	-27.1	-4.9	-4.2	-36.2	72.4
IT	5.5	-10.1	5.4	-8.1	8.1	14.9	-6.1	2.7	-11.1	0.2
CY	-2.1	-1.8	-1.0	-0.3	7.8	-2.1	-3.5	9.7	0.2	-3.6
LV	11.3	-4.1	1.2	-26.7	18.2	*7.9*	*-3.3*	*7.8*	*-41.2*	*28.9*
LT	15.5	-1.0	2.7	-18.8	1.6	20.4	2.2	2.4	-21.9	-3.0
LU	*20.5*	*0.4*	*0.0*	*-18.3*	*-2.3*	*4.4*	*3.2*	*-1.9*	*-4.2*	*-1.5*
HU	19.6	-2.0	5.0	-19.0	-3.1	12.7	-2.0	6.4	-18.0	1.2
MT	*16.8*	*1.6*	*1.8*	*-8.5*	*-10.7*	*6.1*	*-3.6*	*7.0*	*-5.3*	*-3.0*
NL	-3.1	-8.1	4.3	0.3	6.6	1.0	6.7	-2.2	-4.6	-0.9
AT	-9.8	0.7	-1.5	-23.0	33.8	-11.1	-4.4	1.1	-13.6	28.1
PL	8.8	-0.1	15.8	-33.1	8.9	14.0	-0.8	1.1	-24.0	9.7
PT	-9.4	-1.5	-5.1	-28.5	45.6	-8.3	-5.5	-2.6	-32.2	50.1
RO	-18.8	-2.1	-4.4	-49.7	76.6	-22.3	-1.4	-1.5	-37.7	64.3
SI	*-21.5*	*0.0*	*-0.6*	*-49.8*	*71.9*	*0.8*	*0.0*	*0.0*	*-56.9*	*56.1*
SK	31.7	-1.8	12.8	-39.7	-2.9	40.6	-3.9	10.6	-42.8	-4.5
FI	2.6	-1.6	-4.7	-4.8	8.5	-7.6	-0.7	1.7	-11.6	18.2
SE	4.9	-4.8	-2.3	-3.1	5.6	-0.3	-0.5	-5.8	0.9	5.8
UK	-7.8	-3.0	2.7	3.6	4.7	4.2	2.6	1.2	-10.1	2.2
EU	6.6	-3.7	4.4	-17.5	10.6	6.8	-1.1	-0.3	-14.6	9.4

Note: 1-3: Managers, professionals, technicians; 4: Clerks; 5: Service and sales workers; 7-8: Skilled and semi-skilled manual workers; 6-9: Elementary and agricultural workers.
Note: No reliable data for FR. Figures in italics indicate data of uncertain reliability because of small number of observations.

Source: Eurostat, Labour Force Survey ad hoc module, 2012

The relative number of men in work employed as skilled or semi-skilled manual workers (for example, mechanics, tool-makers, machinists or production line workers) was smaller than among those who have retired in nearly all countries, in most significantly so. This implies that relatively few of those working in these occupations continue to do so after receiving a pension. It also seems to imply that a disproportionate number of those receiving a pension before reaching the official retirement age were employed in these manual jobs.

By contrast, the proportion of those receiving a pension and employed in elementary and agricultural jobs was larger in most countries than among the retired, implying that a disproportionate number of the men concerned continued to work after receiving a pension. This is particularly so in Greece, Croatia, Romania, Slovenia and, to a lesser extent, in Portugal – all relatively low-income countries and, in the first three as well as Portugal, with relatively large agricultural sectors.

Much the same is true of men who continue to work after 65. Very few of them are skilled and semi-skilled manual workers in almost all countries, while a disproportionate number are elementary or agricultural workers, most especially in the same countries

as for the 60-64 age group. On the other hand, there is a relatively even split between countries in whether the proportion of those continuing to work who are employed in the higher-level occupations is larger than for those who have retired, or smaller. It is particularly large in a number of lower-income countries – in the Czech Republic, Estonia, Lithuania, Hungary, Poland and Slovakia, as well as in Spain and Italy – indicating that in these countries men are more likely to remain in work after receiving a pension if they are employed in these occupations than if they work in other jobs. In the higher-income countries, where the proportion in these jobs is smaller, it could be the case either that the people in these higher-level occupations are more likely to stop working when they receive a pension than those in lower-level ones, or that they take up lower-level jobs after they retire from the higher-level ones. There is no way given the data of distinguishing between these two cases.

For women aged 60-64, the pattern of differences between the jobs that those who continue to work and the jobs that those who have retired used to do is similar in some respects to that for men. There is much the same difference as for men in the proportions of people employed as skilled and semi-skilled workers, implying that, like men, relatively few women who remain in employment after receiving a pension work in such jobs and that they seem disproportionately likely to retire early (Table 12). For both men and women, it could be either that the arduous nature of these jobs leads people to retire early (and in some cases, perhaps, that they are no longer physically capable of doing such jobs) or that the pension system in operation is set up in such a way that the people doing these jobs receive a pension relatively early. This could be, for example, because they tend to start work at an earlier age than those in higher-level, non-manual occupations and, therefore, build up sufficient contributions to entitle them to a pension before reaching 65. It could also be that the people concerned shift to less arduous or demanding jobs, perhaps working part-time, once they receive a pension.

There is less of a tendency for women who continue working to be employed disproportionately as elementary or agricultural workers, though it is still the case that relatively large numbers of women with a pension are employed in these jobs in Croatia, Romania and Slovenia (there are no reliable data for Greece and Portugal).

There is the same kind of split between countries in the relative number of women employed as managers, professionals or technicians, which is again comparatively high in a number of the lower-income countries – the Czech Republic, the three Baltic States, Poland and Slovakia – though comparatively small in others (Croatia, Romania and Slovenia), reflecting the larger proportion of people employed in elementary and agricultural jobs.

There is, on the other hand, a relatively widespread tendency – more so than for men – for women with a pension and still working to be employed disproportionately in sales and service jobs, which include caring activities.

This tendency, however, does not extend to women aged 65-69, for whom there is a fairly even split between countries in the proportion of those in work employed in sales and service jobs as compared with the proportion who used to work in these jobs among those retired. The main point of difference between the two groups that stands out is the disproportionate number of women employed as elementary and agricultural workers among those still in employment in Croatia, Portugal, Romania and Slovenia, in the same way as for men.

A major finding is, therefore, that in lower-income countries, a large number of both the men and women who continue in employment after receiving a pension work in relatively low-skilled manual jobs, to a large extent in agriculture but also in other activities. It is also the case, however, in a number of higher-income countries, perhaps reflecting a lower financial need among the people concerned to continue working after they receive a pension.

Table 12 Difference in occupational division of women receiving pensions and in work relative to previous occupational division of women receiving pensions and economically inactive, 2012 (Percentage point difference)

	60-64					65-69				
	1-3	4	5	7-8	6-9	1-3	4	5	7-8	6-9
BG	-0.1	-4.7	7.7	-1.6	-1.3	*5.5*	*-9.4*	*9.6*	*-7.4*	*1.7*
CZ	12.6	-3.8	7.3	-12.0	-4.1	-7.9	1.6	4.9	-5.1	6.5
DK	9.1	-10.8	13.6	-4.0	-7.8	4.4	-4.4	2.5	-5.3	2.8
DE	13.0	-20.7	6.5	0.7	0.4	-4.7	-9.2	2.0	0.7	11.2
EE	13.8	1.4	4.0	-9.0	-10.3	12.7	-6.8	-2.5	-2.5	-0.9
IE	*-20.6*	*5.0*	*18.8*	*-1.7*	*-1.5*	-9.4	-6.5	14.9	-3.4	4.4
EL						*-14.8*	*-5.6*	*6.8*	*-5.6*	*19.3*
ES	*22.5*	*-18.3*	*9.4*	*-6.3*	*-7.4*					
HR	*-36.5*	*-5.4*	*4.0*	*-12.4*	*50.3*	*-15.4*	*-13.7*	*-9.3*	*-7.0*	*45.4*
IT	-4.1	-10.9	23.8	-7.7	-1.0	-8.4	-3.6	13.8	-3.9	2.1
CY	*-46.0*	*22.5*	*14.3*	*8.1*	*1.1*	*3.2*	*2.3*	*11.2*	*-5.5*	*-11.3*
LV	14.3	0.1	2.8	-7.2	-10.1	17.7	-6.6	-6.4	-14.6	9.9
LT	21.2	-3.5	1.4	-5.6	-13.6	2.5	0.5	-2.3	-4.3	3.7
HU	6.8	-6.0	7.0	-12.4	4.6	2.0	4.3	2.8	-5.3	-3.8
NL	8.2	-5.0	3.8	-3.1	-3.8	*9.2*	*-21.5*	*-9.6*	*3.0*	*18.8*
AT	-3.4	2.3	2.5	-0.7	-0.6	15.8	-5.6	-8.8	-0.5	-1.0
PL	13.8	-7.8	-3.3	-7.2	4.5	1.9	-3.2	-2.9	-4.9	9.1
PT						-10.9	-9.5	-6.0	-9.0	35.4
RO	-26.5	-9.0	-14.1	-19.8	69.9	-18.1	-9.9	-3.2	-15.5	46.6
SI	*-30.4*	*5.9*	*1.1*	*-8.3*	*31.7*	*-38.2*	*0.0*	*-5.3*	*-3.4*	*47.0*
SK	36.6	-3.1	-9.2	-13.1	-11.3	*10.9*	*-4.5*	*-4.0*	*-7.6*	*5.3*
FI	3.3	4.2	-3.8	-0.8	-2.9	3.0	-9.1	1.0	-3.1	8.1
SE	1.5	-4.2	-0.4	3.5	-0.4	10.9	-5.6	-3.1	-4.7	2.4
UK	-7.5	4.6	1.7	-0.6	1.7	0.2	4.2	-0.9	-1.1	-2.5
EU	1.9	-4.8	4.2	-5.7	4.5	-0.6	-5.3	0.3	-2.9	8.5

Note: 1-3: Managers, professionals, technicians; 4: Clerks; 5: Service and sales workers; 7-8: Skilled and semi-skilled manual workers; 6-9: Elementary and agricultural workers.
Note: No reliable data for BE, FR, LU and MT. Blanks indicate data unreliable because of too few observations. Figures in italics indicate data of uncertain reliability because of small number of observations.
Source: Eurostat, Labour Force Survey ad hoc module, 2012

The education levels of those with a pension continuing to work

There are equally marked differences in the education level of those receiving pensions between those who remain in work and those who have retired. These broadly reflect the differences in the division of the two groups between occupations. On average across the EU, men and women aged 60-64 still in work were significantly more likely to have higher education levels than those in retirement[18]. The proportion with tertiary education was almost 10 percentage points more than for the latter group, whereas the proportion with only basic schooling was almost 10 percentage points lower (Table 13). This reflects not only the difference in the occupational structure of those who continue to work as compared with those who do not, but also the fact that many of those who continue to work do so for non-financial reasons. In other words, those with tertiary education are more likely to have higher pensions, and higher income, than those with lower education levels and so would be expected to have a smaller financial incentive

[18] It is difficult to treat men and women separately because of the relatively small number of observations, though those countries for which it is possible show similar tendencies for the two.

to continue working: but they do nonetheless[19]. The motivation for people to continue working is explored in detail below.

This pattern of difference in education levels is common to most countries, the only exceptions, apart from Cyprus, being the countries noted above as having disproportionate numbers employed in elementary and agricultural jobs – Greece, Croatia, Portugal, Romania and Slovenia, where perhaps the level of pensions is not adequate for people in these jobs, in particular, not to continue working. The larger relative numbers of tertiary-educated people still in employment is particularly pronounced in the lower-income countries, where, as noted above, a disproportionate number of those continuing to work were employed in the higher-level occupations.

Table 13 Difference in education levels of people receiving pensions and in work relative to the levels of those receiving pensions and economically inactive, 2012 (Percentage point difference)

	60-64			65-69		
	Low	Medium	High	Low	Medium	High
BE	-7.8	-10.9	18.7	-8.3	-7.0	15.3
BG	-15.8	-0.1	15.8	-19.7	3.4	16.2
CZ	-11.4	-6.3	17.8	-14.4	-10.8	25.2
DK	-15.6	3.1	12.4	-12.4	4.6	7.8
DE	-3.1	2.5	0.6	-3.9	0.0	3.9
EE	-11.4	-8.2	19.6	-7.9	-11.4	19.3
IE	-14.3	5.7	8.7	-0.5	-1.6	2.1
EL	*5.9*	*-1.2*	*-4.8*	18.8	-11.5	-7.3
ES	-13.4	-2.9	16.3	-42.0	-8.1	50.1
FR	-2.9	-8.3	11.2	-7.7	-6.8	14.5
HR	12.8	-5.1	-7.7	*11.4*	*-16.0*	*4.7*
IT	-5.1	2.8	2.3	-14.4	2.2	12.2
CY	11.3	-1.8	-9.5	4.3	-16.3	12.0
LV	2.2	-24.6	22.4	-10.7	-11.4	22.1
LT	-14.0	-9.5	23.5	-19.8	-4.9	24.8
LU	*-8.5*	*-3.0*	*11.5*	*-7.2*	*-7.8*	*15.0*
HU	-15.4	-7.2	22.7	-28.1	1.4	26.7
MT	*-12.6*	*-1.4*	*13.9*	*-18.1*	*4.3*	*13.9*
NL	-7.7	-3.9	11.6	-7.8	-3.1	10.9
AT	2.8	-15.1	12.2	-0.2	-13.0	13.2
PL	-8.0	-11.3	19.4	-11.9	-9.5	21.4
PT	1.4	-0.2	-1.3	10.8	-4.9	-6.0
RO	35.9	-28.6	-7.3	31.7	-24.2	-7.6
SI	*10.9*	*-2.7*	*-8.2*	*12.4*	*-13.6*	*1.2*
SK	-11.7	-18.5	30.2	-20.4	-19.9	40.3
FI	-17.0	6.6	10.5	-15.3	3.8	11.6
SE	-3.7	-5.8	9.4	-6.2	-3.6	9.8
UK	-4.4	4.2	0.2	-8.5	2.1	6.4
EU	-9.5	-0.1	9.6	-10.6	1.2	9.3

Note: Low=basic schooling; medium=upper secondary education; high=tertiary. Figures in italics indicate data of uncertain reliability because of small number of observations.
Source: Eurostat, Labour Force Survey ad hoc module, 2012

[19] According to Eurofound (2012; 2014), based on evidence from the European Social Survey of 2010 and the European Quality of Life Survey of 2011, only an estimated 20% or so of people aged 65 and over who are employed work solely because of financial need. For the other 80%, though income may be important, other factors – such as maintaining social contacts, remaining active and healthy, or even wanting to contribute to society – play a role.

Much the same pattern of difference between those in work and those in retirement is also evident for the 65-69 age group. Again, men and women continuing to work after receiving a pension were more likely to have tertiary education than those retired and less likely to have only basic schooling. This could reflect not only a desire among people with this level of education to continue working but also the likelihood that they are in better health than those with lower education levels. (This point is explored in the second part of this Research Note.) The exceptions are the same as for those aged 60-64 – Greece, Portugal, Romania, Croatia and Slovenia (in the last two, though the proportion with tertiary education is slightly larger for those in work, the proportion with only basic schooling is also larger, and significantly so).

Reasons for people receiving a pension to continue working

As noted above, a number of surveys in the EU have found that people beyond the normal age of retirement continue to work for non-financial as well as financial reasons. The LFS *ad hoc* module, which was significantly larger than previous ones, confirms that this is the case but it also throws light on the differences that exist in terms of the main motivation for working both between countries and social groups within countries.

The data from the module also enables the reasons why men and women in receipt of a pension go on working to be examined. The data indicate that, in most cases, the motive is a financial one, either to increase entitlement to a larger pension by working more years or to supplement household income or both. They also indicate, however, that the financial motive tends to decline in importance as people get older. Among those still working after 65, non-financial reasons are more significant than among younger age groups, though they remain slightly less important than financial motives overall and their relative importance also varies across countries.

For men and women aged 60-64 (the small number of observations limits the countries for which the data are reasonably reliable for younger age groups), just over two-thirds of those receiving a pension and continuing to work in the EU reported doing so because of financial reasons, largely to supplement their pension by earnings from employment (Table 14).

The split between financial and non-financial reasons, however, varies markedly across the EU, to a large extent reflecting the level of income and the generosity of pension schemes. Accordingly, the proportion reporting non-financial reasons was particularly large in Denmark and Austria (above 70%) as well as in Belgium and Luxembourg (more than 60%), where there is likely to be less need to supplement pension income by working - though also in Slovenia, where income levels are lower. Conversely, it was smallest in the low-income countries, the three Baltic States, Hungary, Romania and Slovakia, in particular, as well as Greece[20].

The pattern of differences across countries in the reasons for pension recipients continuing to work is broadly repeated for those aged 65-69. Interestingly, the figures for those reporting non-financial reasons tend to be higher, perhaps reflecting the larger pensions generally received after reaching the official retirement age. Almost half the men and women in this age group with pensions and in employment report that they continue to work for non-financial reasons. The proportion tends to be particularly large (over 70% in many cases) in the higher-income countries (in the Nordic Member States, the Netherlands, Austria and Luxembourg, especially), though also in Slovenia again as well as Spain.

[20] The relative importance of non-financial reasons for people continuing in work accords with the Eurofound reports noted above, though these focused mainly on the overall situation at EU level (mainly because of the relatively small sample size of the European Quality of Life Survey.

Table 14 Proportion of people aged 60-64 and 65-69 receiving a pension and economically active reporting different reasons for continuing to work, 2012 (%)

	60-64				65-69			
	To increase pension	To increase income	To increase both	Non-financial reasons	To increase pension	To increase income	To increase both	Non-financial reasons
BE	0.0	27.7	4.3	67.9	3.3	29.1	1.3	66.4
BG	4.7	59.9	20.2	15.1	6.1	66.3	11.7	15.9
CZ	2.9	57.1	17.3	22.7	5.4	48.0	22.3	24.3
DK	4.8	14.0	8.6	72.7	0.5	6.0	4.3	89.2
DE	4.4	58.8	6.7	30.0	2.5	45.2	3.8	48.5
EE	9.4	80.2	2.0	8.3	6.6	82.4	1.1	10.0
IE	6.8	40.4	15.8	36.9	2.6	29.7	10.2	57.5
EL	0.0	89.1	2.6	8.3	0.9	88.0	3.3	7.7
ES	44.0	3.4	21.6	31.0	0.0	16.2	0.0	83.8
FR	9.5	46.5	1.6	42.4	4.0	52.2	0.0	43.8
HR	*0.0*	*64.1*	*8.6*	*27.2*	*0.0*	*71.4*	*0.0*	*28.6*
IT	8.7	45.0	13.0	33.3	6.9	49.1	9.7	34.3
CY	13.0	31.6	31.4	24.0	1.2	44.8	19.0	35.0
LV	8.9	59.6	19.8	11.7	16.1	60.3	13.4	10.2
LT	11.8	51.2	29.1	7.9	12.3	52.6	21.9	13.3
LU	*3.9*	*20.8*	*11.3*	*64.0*	0.0	24.3	3.7	72.0
HU	2.5	71.7	17.4	8.4	2.0	66.3	16.4	15.3
MT	*2.3*	*49.4*	*10.1*	*38.2*	6.7	30.4	13.3	49.6
NL	1.7	22.6	21.6	54.1	0.3	21.4	2.9	75.4
AT	2.6	20.5	0.4	76.6	1.3	24.7	1.4	72.6
PL	3.1	50.8	26.9	19.2	5.0	47.7	20.5	26.9
PT	1.8	53.8	8.7	35.6	2.0	62.4	4.3	31.3
RO	3.9	93.9	1.6	0.6	3.7	93.0	1.8	1.6
SI	*0.0*	*32.7*	*1.7*	*65.6*	2.3	16.5	1.9	79.4
SK	1.6	81.9	8.9	7.6	3.5	73.2	9.1	14.2
FI	6.4	25.5	28.0	40.1	5.7	14.3	8.4	71.6
SE	12.6	19.3	16.8	51.3	6.1	10.1	8.9	75.0
UK	4.1	32.7	21.6	41.7	3.0	28.9	12.0	56.1
EU	5.6	45.3	15.6	33.5	3.8	40.7	8.3	47.2

Note: Figures in italics relatively uncertain because of small number of observations.

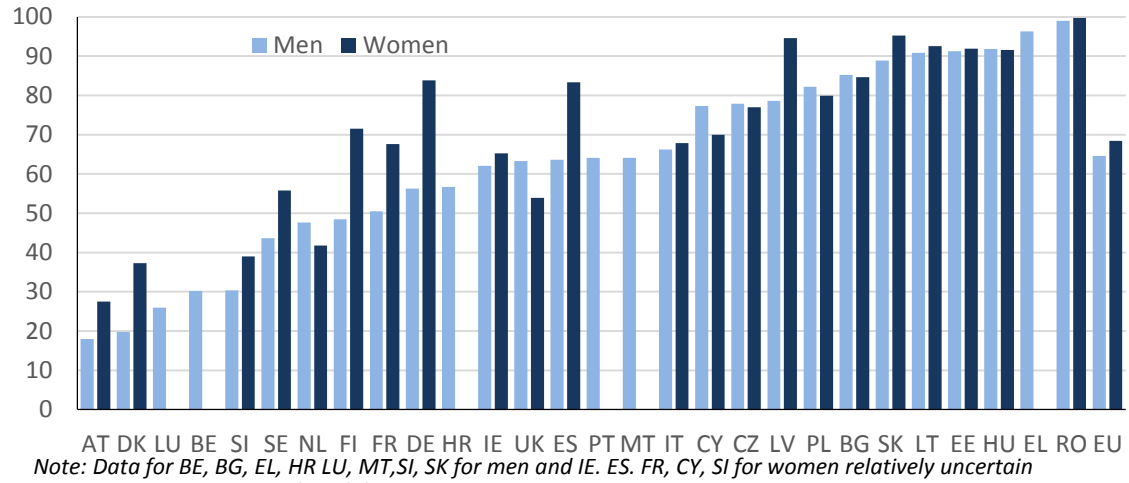
Source: Eurostat, LFS ad hoc module, 2012

The proportion of people continuing to work for non-financial reasons, on the other hand, remains very small in many of the lower-income countries, most especially in Romania and Greece but also in the Baltic States, Bulgaria, Hungary and Slovakia, in all of which the proportion is only around 15% or below. In these countries, therefore, men and women continue to work despite receiving a pension mainly to supplement their household income. As such, it seems less of a voluntary choice to go on working and more of a necessity to earn sufficient income.

There seems to be a greater tendency for women receiving a pension to continue working for financial reasons than for men, especially in countries where most men report being in work for non-financial reasons – i.e. in the higher-income countries. While there are 11 Member States in which the proportion of women in the 60-64 age group reporting this is significantly larger than for men, there are only three – the UK, the Netherlands and the Czech Republic – where the reverse is the case (Figure 5). This may reflect the fact that women's pensions tend to be significantly lower than those of

men, reflecting in turn the gender pay gap which remains relatively wide in most EU Member States[21].

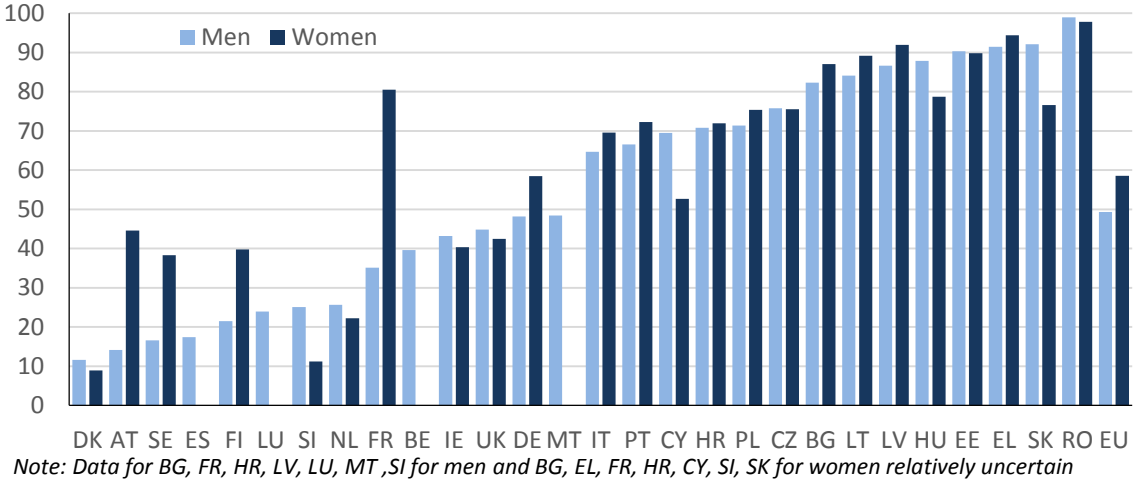
Figure 5 Proportion of men and women aged 60-64 receiving pensions and economically active that continued to work for financial reasons, 2012 (%)



Note: Data for BE, BG, EL, HR LU, MT,SI, SK for men and IE. ES. FR, CY, SI for women relatively uncertain
Source: Eurostat, LFS special module, 2012

In the case of the 65-69 age group, there is more of a difference between Member States as regards the relative proportions of men and women reporting that they continue to work for financial reasons. It is still the case that the proportion concerned is significantly larger for women than for men in a number of the higher-income countries, as well as in the EU as a whole; but there are more countries where the reverse is the case (Cyprus, Hungary, Slovenia and Slovakia, in particular) (Figure 6).

Figure 6 Proportion of men and women aged 65-69 receiving pensions and economically active that continued to work for financial reasons, 2012 (%)



Note: Data for BG, FR, HR, LV, LU, MT ,SI for men and BG, EL, FR, HR, CY, SI, SK for women relatively uncertain
Source: Eurostat, LFS special module, 2012

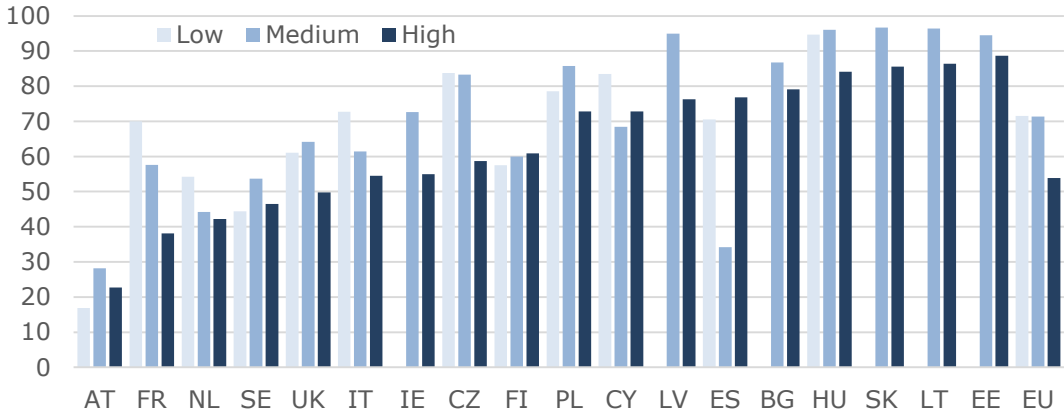
It is instructive in this regard to examine the differences in the main reason for continuing to work between those with different levels of education. The expectation is that more of the people with higher education levels would continue working because of non-financial reasons, while those with lower education would be more likely to work for financial reasons, i.e. to supplement the income from their pension, which is likely to be smaller. This is broadly borne out by the evidence, though the findings are not entirely consistent across countries.

[21] See the Pension Adequacy Report of 2015, produced jointly by the Social Protection Committee and DG Employment (European Commission, 2015).

First, it should be said, however, that because of the relatively small number of observations for those with different levels of education, it is not possible to examine the results for men and women separately; and even when considered together, there are some countries for which the number of observations is too small to be reliable.

For those aged 60-64, just over half (54%) of men and women with tertiary (or high) education who continued to be economically active remained in the work force mainly for financial reasons, so that almost half remained working largely because they wanted to rather than because they needed to in order to supplement their income (Figure 7). This compares with a figure of 72% for those with only basic schooling (or low education) and 71% for those with upper secondary (or medium-level) education. This pattern of difference is evident for nearly all countries, but it does not apply to Austria, Sweden, Finland and Spain, in the first two of which the proportion of people working for financial reasons was relatively small for all education levels, and in the third of which the difference in the proportions was marginal. It should be noted that, contrary to what the EU average figures seem to suggest, in half the countries for which there are reliable data, over 70% of those with tertiary education who were still economically active reported working mainly for financial reasons and it is only in 7 of the higher-income countries that the proportion was less than half.

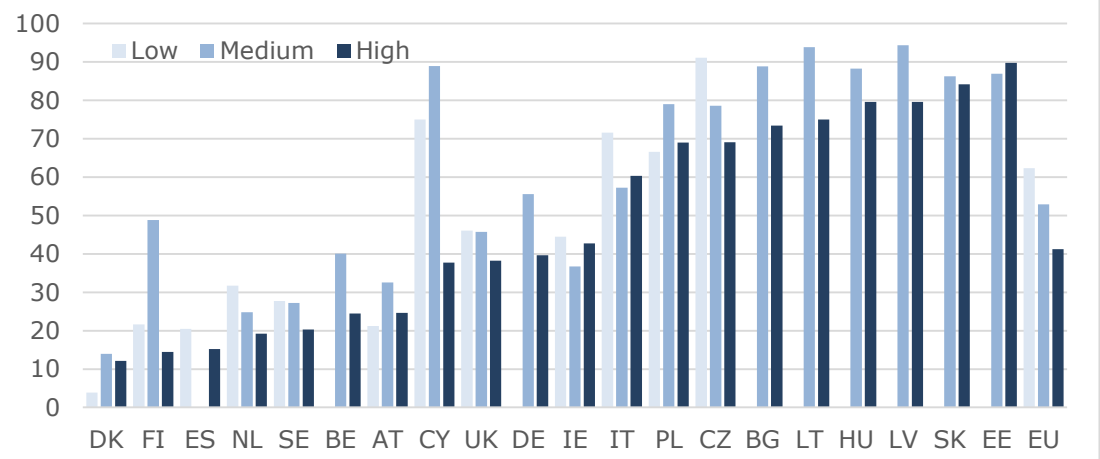
Figure 7 Proportion of people aged 60-64 receiving pensions and economically active that continued to work for financial reasons by education level, 2012 (% of those with each level of education)



Source: Eurostat, LFS ad hoc module 2012. Note: Data missing where unrelaible.

For those aged 65-69, the pattern of difference between those with different levels of education is similar. For this age group, only just over 40% of those with tertiary education in the EU who were economically active reported that they continued to work for financial reasons, whereas 62% of those with only basic schooling reported doing so for this reason (Figure 8). In this case, only in Poland, Denmark and Austria (in the latter, as for those aged 60-64) was the proportion of people working for financial reasons larger for those with tertiary education than for those with only basic schooling (though in each of these, it was smaller than for those with upper secondary education).

Figure 8 Proportion of people aged 65-69 receiving pensions and economically active that continued to work for financial reasons by education level, 2012 (% of those with each level of education)



Source: Eurostat, LFS ad hoc module 2012. Note: Data missing where unreliable.

Again, however, there were substantial differences across countries in the proportion of those with tertiary education working for financial reasons. In 10 of the 20 countries for which there are data the proportion was less than around 40%, and in most cases less than 25%. But in 9 of the countries it was over 60%, and in most of these it was over 70%. All of the 10 are EU15 countries, except for Cyprus, where income per head is relatively high; all of the 9, apart from Italy, are EU13 countries with income per head – and pension levels – well below the EU average. Accordingly, in these countries, the main motivation to continue working after receipt of a pension is a financial one even among those with tertiary education, while in the EU15 countries, most of those who continue to work do so for non-financial reasons.

Concluding remarks

There has been an increasing concern across the EU over the past decade or two to attempt to postpone the age at which people retire from working. This has been motivated by the ageing of the population and the strong upward trend in the proportion of the population above the age of 65, for many years the official age of retirement in most Member States, which has led to growing pressure on public pension systems. Many Member States have, therefore, reformed their systems in recent years to increase the age at which people become entitled to receive a pension. At the same time, they have reduced the possibility for people to take early retirement before reaching this age.

These moves, coupled with a change in attitude among employers and within society generally towards older people continuing to work, have resulted in employment rates among those aged 55 and over increasing since the mid-1990s, whereas previously they were tending to fall right across the EU. This upward trend, moreover, has continued over the crisis period. Even though it was slowed or briefly halted in 2008-2009 when the global recession struck, the employment rate of people in this age group in the EU did not decline as it did for those in younger groups and as it had done in previous economic downturns.

Against this background, the above analysis has examined the extent to which people receive old-age pensions before they reach the official age of retirement – or at least the extent to which they did so in 2012 – and the relative number of those who continue in employment after they do, how far they tend to reduce their hours of work, and the reasons why they go on working despite having a pension. This has important policy implications in that it throws light on how far receipt of a pension results in people ceasing to work, or reducing their working time rather than stopping work completely, as well as how far people continue to work because they need to supplement the income they get from a pension, which might reflect the adequacy of pension systems. Equally, it also throws light on how many people continue working because they want to rather than because they are forced to for financial reasons.

The findings indicate that there was a reduction between 2006 and 2012 in the relative number of people receiving old-age pensions before the age of 65 across the EU. In some cases this is linked with increases in the official age of retirement: but not in all cases, which suggests that there were other factors at work, such as fewer people choosing, or being able, to retire early. Nevertheless, there were still a significant number of people in receipt of an old-age pension in their late 50s in some Member States in 2012, especially in Greece, Luxembourg and the UK in the case of men and in a number of the EU13 countries as well as in Greece and Austria in the case of women. There were even more in receipt of social benefits as a whole, including disability benefits in particular, the proportion for men averaging 18% and for women 22%. In the 60-64 age group, more than half of men and over 60% of women in the EU received an old-age pension and even more received some kind of benefit (60% of men and 70% of women).

The increase in the age at which people receive an old-age pension was associated, as noted above, with a continuing rise in employment rates among those aged 55-64. However, while most men and women receiving a pension in their early 50s continue to work, the proportion falls to only around a third for men aged 55-59 in the EU and to less than 40% for women, though there are large variations between countries. The proportion in work falls even further for those aged 60-64 receiving pensions, to only around 18% on average, though again with marked differences across countries. This perhaps reflects restrictions on the possibility of combining the receipt of pension with earnings from work or the cost of doing so in terms of the pension being reduced if earnings exceed a certain level. Indeed, restrictions apply to earnings in most countries if a pension is received before reaching the age of retirement[22], whereas there seem to be few restrictions in most countries on people continuing to earn once they have passed the official age of retirement.

Nevertheless, there are marked variations across countries in the relative number of men and women who continue to work after the age of 65. The average share is less than 15% for men and around 10% for women: but in a number of countries it is well over 20%, and in many others it is well below 10%.

Many of the men and women in receipt of pensions before the age of 65 work part-time, over 40% of men aged 60-64 and 55% of women across the EU (though the proportions vary substantially between countries largely in line with differences in the general prevalence of part-time working). This is equally the case for pension recipients continuing to work after the age of 65. While on average across the EU, around half of the men and over two-thirds of the women concerned worked part-time, in many EU13 countries as well as in Greece and Italy, the proportion was less than 30% for men and less than half for women. In these countries, therefore, most of those still in employment after the age of 65 work full-time hours, reflecting the need to work for financial reasons.

There are substantial differences in the jobs that men and women who continue to work do after receiving a pension as compared with those that men and women who have stopped working did before they retired. In particular, many fewer pension recipients aged 60-64 still working are employed in skilled and semi-skilled manual jobs, implying that there is a disproportionate tendency for those working in such jobs to retire early, perhaps reflecting the arduous nature of the work or, at least, the difficulty of working in such jobs once people are above a certain age. Equally, in a number of the EU13 countries, in particular, a relatively large proportion of pension recipients who continue to work are employed in the higher-level occupations, as managers, professionals or technicians, while in others a disproportionate number are employed in elementary and agricultural jobs. This is a reflection in part of the relative weight of two major reasons for continuing to work, in the first case, because the nature of the work allows it – i.e.

[22] The only countries where restrictions do not seem to apply are Bulgaria, Cyprus, France, Ireland, Italy, Portugal, Sweden and the UK. In all countries, cumulation of earnings with a state pension is possible. See the MISSOC tables for details.

it does not demand much physical effort – in the second case, because of the need for financial reasons to continue working, which is particularly acute among those in low-skilled, low-income jobs, who are likely to have relatively low pensions.

This is also the case among those aged 65-69, indicating that in a number of the lower-income countries – Croatia and Romania, in particular, but also Greece, Portugal and Slovenia – it is those in elementary and agricultural jobs who are most likely to continue working after receiving a pension, perhaps because of the financial imperative of doing so; whereas in other countries, it is more likely to be those in higher-level jobs.

This difference between countries is reflected in the educational attainment levels of men and women who continue to work after receiving a pension. While in most countries those with tertiary education are most likely to go on working, in Greece, Croatia, Portugal, Romania and Slovenia, it is those with only basic schooling.

There are equally marked differences across countries in the main reasons reported by people for continuing to work despite receiving a pension. Before reaching the age of 65, most people across the EU continue to do so for financial reasons, to increase their household income or, to a lesser extent, to increase their pension entitlement: but in a number of the higher-income countries, non-financial reasons predominate. In the 65-69 age group, just over half of pension recipients who continue to work do so for financial reasons, mainly to supplement their pension. Again, however, non-financial reasons predominate in many of the higher-income countries, whereas in a number of lower-income countries, Greece and Romania especially, the great majority of those continuing to work do so to increase their income.

There is some tendency in a number of the higher-income countries for more women than men receiving pensions to be motivated to work for financial rather than non-financial reasons, which may reflect the smaller pensions that women on average receive.

Finally, and perhaps not surprisingly, men and women receiving a pension and still economically active are more likely to continue to work for financial reasons if they have a relatively low education level than if they have tertiary-level education. Nevertheless, in EU13 countries with relatively low incomes, as well as in Italy, even most of those with tertiary education who continue working do so for financial reasons. It is only in the higher-income countries in the EU15 that non-financial reasons for working predominate.

However, a fundamental factor determining whether older men or women receiving pensions continue to be employed is their health. Unless their health is in a sufficiently good state, they may well be incapable of continuing to work. This is the theme of the next part of this Research Note which considers the health conditions of older people aged 55 and over and how this varies according to their employment situation.

Part 2 Health conditions of older people

The health conditions of older workers

While the health status of an individual is likely to affect their employment trajectory throughout the life-course (from education attainment to entry into the labour market and professional achievement), it appears all the more important for older people, who face a decline in their health that may become incompatible with the continuation of paid work (Bound et al., 1999). Ill health is in fact a strong predictor of labour market exit for older Europeans (van der Berg, 2011), a relationship hiding complex interactions between health status (self-rated or objective) and multiple individual socio-economic characteristics: education levels (van den Berg et al., 2010), social networks and support (Brown & Vickerstaff, 2011), income level and occupational class (Mackenbach, 2006).

Under the pressure of current demographic trends, the relevance of studying the health conditions of older workers is further reinforced by research pointing to the influence on the effectiveness of retirement policies on labour participation in this group of health status. Increases in the statutory retirement age, while effective in raising the employment rate among older people (Gruber and Wise, 2004), have been found to disproportionately affect high-income and healthy workers, whereas those with poorer health continued to leave the labour force (Staubli & Zweimueller, 2013). Therefore, understanding and addressing the challenges related to the health of older workers is a key factor for the effectiveness of policies promoting longer working lives.

The present analysis is aimed at contributing to this debate by using indicators of both physical and mental health, in order to provide an overview of the health status of older people, both active and inactive in the labour force. Health problems in either of the two domains can lead to functional impairments and, in turn, severely affect the employment status of older people. Accordingly, the section closes with an assessment of functional independence and disability rates among the older population.

An overview of the indicators used in the following analysis, including a detailed description of the survey items used for data collection, is presented in Table 1.

Table 1 Overview of indicators for health condition, by health domain

Domain	Description of survey item
Physical health	**Health in general** Would you say your health is … Possible answers: *Excellent / Very good / Good / Fair / Poor*
	Presence of long-term illness Some people suffer from chronic or long-term health problems. By chronic or long-term we mean it has troubled you over a period of time or is likely to affect you over a period of time. Do you have any such health problems, illness, disability or infirmity? Possible answers: *Yes / No*
Mental health	**EURO-D depression scale** Validated depression symptom scale ranging from 0 to 12 (very depressed), designed specifically for older individuals. The values are generated from answers to 12 indicator questions on specific depression symptoms: *feeling sad, having hopes for the future, wishing to be dead, feeling guilty, trouble sleeping, irritability, appetite, having interests, fatigue, lack of concentration, enjoyment, tearfulness*

Functional status and independence	**Limitations in activities of daily living (ADL) and instrumental activities of daily living (IADL)** Please tell me if you have any difficulty with these activities because of a physical, mental, emotional or memory problem. Please exclude any difficulties you expect to last less than three months. Possible answers: *[ADL] Dressing, including putting on shoes and socks* *Walking across a room* *Bathing or showering* *Eating, such as cutting up your food* *Getting in or out of bed* *Using the toilet, including getting up or down* *[IADL] Using a map to figure out how to get around in a strange place* *Preparing a hot meal* *Shopping for groceries* *Making telephone calls* *Taking medications* *Doing work around the house or garden* *Managing money, such as paying bills and keeping track of expenses*

The analysis is based on data from the fifth wave of the Survey of Health, Ageing and Retirement in Europe[23] (SHARE), collected during 2013 in 14 European countries (Börsch-Supan and Jurges, 2005; Malter and Börsch-Supan, 2015). It includes a total of 31,599 respondents aged between 55 and 69 at the time of the interview. Of these, 45.6% were men and 54.4% women, and the average age was around 62.

The employment status of the people in the sample is self-reported and defined on the basis of answers to the question: "which of the following best describes your current employment situation?" with several response categories: retired, employed or self-employed, unemployed, homemaker, permanently sick or disabled and other (including, but not limited to situations such as: rentier, living off own property, student, doing voluntary work). For the purpose of the current analysis, the last three categories have been collapsed to a general 'other' category which can be described as 'inactive other than retirement'. Almost half the people included in the sample (46.5%) were retired at the time of the interview, 4% were unemployed and 13.6% were inactive other than retired. The remainder, 36% of those interviewed, declared themselves to be in employment.

Physical health: General health status and the presence of long-term illness

The general health status of the respondents in the SHARE survey can be gauged via a standard self-reported health measure, as described in Table 1 above, which aims to capture a comprehensive and personal assessment of the person's own health status. While it is generally accepted that most people refer to their physical health when answering the question, it is worth noting that the purposefully ambiguous formulation of the question allows for a broader frame of reference that can include psychological and emotional well-being as well as health-related quality of life in line with the WHO definition of health (WHO, 1948). Self-reported health is routinely used in epidemiological studies to reflect the integrated perception of health of each individual, although more objective measures are used for the determination of disease prevalence

[23] This paper uses data from SHARE Wave 5 release 1.0.0, as of March 31st 2015. The SHARE data collection has been primarily funded by the European Commission through the 5th, 6th and 7h Framework Programmes. Additional funding from the U.S. National Institute on Aging and the German Ministry of Education and Research as well as from various national sources is gratefully acknowledged (see www.share-project.org for a full list of funding institutions).

(Miilunpalo et al., 1997) and is recommended for inclusion in all health surveys (WHO, 1996; Robine et al., 2003). The subjectivity that is inherent in an assessment of own health leads to an imperfect overlap between such self-reported and objective health measures, a matter that has been contested in the specialised literature (Sen, 2002). Nonetheless, numerous studies have confirmed the validity and reliability of self-reported health measures (LaRue et al., 1979; Ferraro, 1980; Ringen, 1995; Idler & Benyamini, 1997), their association with mortality (Kaplan & Camacho, 1983; Mossey & Shapiro, 1982), their ability to examine aspects that fit a variety of conditions and so allow comparison across different conditions (Black, 2013) and the desirability of using such measures in studies of retirement decisions (Bound, 1991).

Table 2 General health status (self- reported) by country and gender, 2013 (%)

	Men					Women				
	Excellent	Very good	Good	Fair	Poor	Excellent	Very good	Good	Fair	Poor
Austria	7.42	29.33	36.52	20.00	6.74	9.76	28.69	35.65	22.67	3.23
Germany	5.59	15.38	40.64	28.98	9.40	7.09	17.43	39.62	28.28	7.58
Sweden	21.68	28.61	32.18	13.29	4.24	23.75	27.17	29.72	14.82	4.54
Netherlands	14.48	15.67	45.44	20.54	3.87	14.26	15.80	45.22	19.85	4.86
Spain	4.18	21.28	46.24	20.14	8.16	3.65	18.25	41.67	27.87	8.56
Italy	9.81	17.37	41.61	24.73	6.48	7.99	14.21	41.00	28.09	8.72
France	9.10	17.91	45.11	21.26	6.61	7.56	17.04	46.06	22.11	7.23
Denmark	22.66	36.52	23.73	12.99	4.10	25.60	32.04	22.77	15.89	3.71
Switzerland	15.42	30.28	42.08	9.31	2.92	13.16	33.60	40.18	11.55	1.50
Belgium	8.64	25.46	44.04	17.20	4.66	7.17	22.57	46.95	18.15	5.16
Czech Rep.	4.99	15.20	39.64	26.68	13.49	4.34	15.73	42.25	28.35	9.34
Luxembourg	8.89	19.31	41.43	21.48	8.89	10.65	21.52	34.78	25.00	8.04
Slovenia	7.35	16.19	43.78	22.64	10.04	5.72	15.80	48.13	22.76	7.59
Estonia	1.48	3.83	27.83	49.30	17.57	2.60	4.81	30.06	48.38	14.16
Total	**9.70**	**20.52**	**39.28**	**22.65**	**7.86**	**9.68**	**19.56**	**39.01**	**24.73**	**7.02**

Source: SHARE Wave 5 release 1.0.0

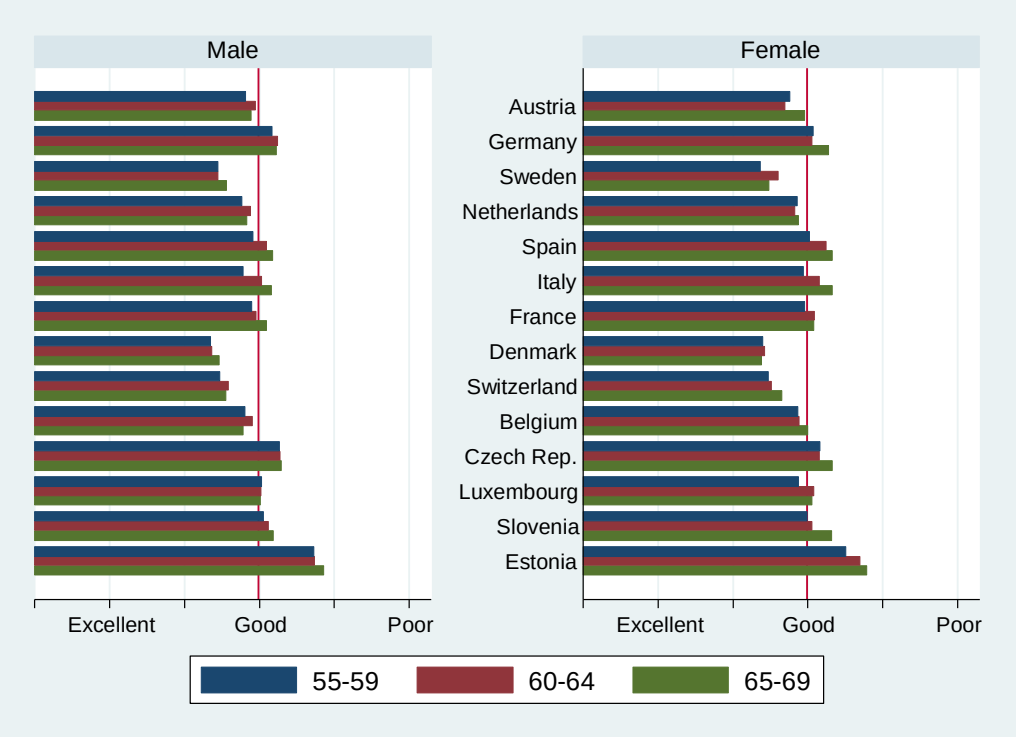
The vast majority of older people (approximately 83%) assess their general health as being between very good and fair, with almost 40% of respondents reporting good health (Table 2). A further 10% report excellent health, while only 7% of respondents assess their health as poor. While gender differences, where present, are generally between 1 and 2 percentage points, it is apparent that extremely wide variations are registered between different European countries[24]. In Denmark and Sweden almost one in 4 older people rate their own health as excellent (24% and 23% respectively). There are also large proportions of people reporting excellent health in the Netherlands and Switzerland, exceeding the European average by 4 percentage points. Not surprisingly, the same countries stand out as having the smallest proportions of older people assessing their health as poor: 2% in Switzerland and 4% in Sweden, Denmark and the Netherlands. At the other end of the spectrum, only 2% of older people in Estonia assess their health as excellent, while 49% report it to be fair and 16% poor. While less

[24] As self-rated health measures reflect a subjective and complex assessment of a person's wellbeing and health status, they are not independent from the cultural context in which they are embedded. In other words, while self-assessed health ratings incorporate reliable information on the health status of the individual they can be affected by factors like culture and age (Jylha, 2009) and should be interpreted with care in cross-country comparisons. Such reporting heterogeneity has been confirmed in studies using 'anchoring vignettes' (Salomon et al., 2004) and comparison with objective health measures (Jürges, 2007), and while accounting for it reduces to some extent cross-country variability it does not eliminate it.

dramatic, figures below the EU average are also reported by those in Spain, Slovenia, Luxembourg, Germany and the Czech Republic.

As the distribution between the five response-categories follows a general bell shape, the marked differences between countries are still apparent when plotting averages. It is also interesting to notice that while women report poorer health, on average, in Italy, Spain, France and Belgium, gender differences are indistinguishable in Denmark, Sweden, Switzerland and the Netherlands.

Figure 1 General health status by gender and age, 2013 (average values)



Source: SHARE Wave 5 release 1.0.0

In all other countries in the sample, women report better health status than men. According to a t-test for mean equality[25] in the pooled sample, the gender differences in self-reported health are not statistically significant (t-test = -1.17, p-value=0.243). However, when running the same test on individual country samples, significant mean differences between men and women emerge in the case of Germany, Spain, Italy, Belgium and Estonia, suggesting that the gender dimension is important and should be considered in any assessment of general health status. The graphs in Figure 1 also indicate that the general health status declines with age, somewhat more markedly for women than for men. This finding is robust across countries and coherent with previous research results, with health status worsening as individuals grow older (Eurostat Statistics Explained, 2013; OECD Health Statistics, 2015; Martin et al., 2007; Diehr et al., 2013).

The employment status of older people is also closely related to their reported general health status (Table 3). It is important to be cautious here on the complex relationship between health and employment in general (Lindeboom, 2006; Vaalavuo, 2016), which extends to the specific case of retirement effects on health. The existence of a bi-directional causation between the two (e.g. the individual's health status influences the probability of remaining in employment, while at the same time the discontinuation of employment is likely to affect health through several channels) may confound the observed effects and make it difficult to ascribe the correlation to a direct causal link.

[25] In order to account for unequal variances and unequal sample sizes between the two samples, we used Welch's t-test approximation.

While some studies have identified a negative effect on health after retirement (Kasl & Jones, 2000; Behncke, 2012), others ascribe positive health effects to the retirement decision (Neuman, 2008; Coe & Zamarro, 2011); although it is unclear if the positive effects persist over the longer-run (Dave et al., 2006). In the opposite causal direction, poor health is definitely a key determinant of (early) retirement (Alaviania & Burdorf, 2008; Lindeboom, 2006; Disney et al., 2006), but many other factors often play more important roles in the retirement decision. Noteworthy among them are the quality of work (Siegreist et al., 2007), as indicated in the first part of this Research Note, the characteristics of the social protection system and tax structures (French, 2005) and the overlap between labour participation opportunities and personal preferences (Herzog et al., 1991).

With this in mind and abstracting from the large country differences, if group differences with respect to the mean are considered, a clear and robust tendency is apparent in the data. Older workers (i.e. those aged 55-69) who are employed report consistently better health than the average, whereas unemployed and inactive respondents in the 'other' category assess their own health as poorer than average (i.e. higher values represent poorer health). It is also worth noting that, for those who are retired, reported values reflect very closely the population mean. However, this is partly a statistical artefact due to the high concentration of the sample in this category.

Table 3 General health status by employment status, 2013 (mean values)

	Retired	Employed	Unemployed	Other	Mean
Austria	2.9	2.5	3.4	3.1	2.9
Germany	3.3	2.9	3.6	3.5	3.2
Sweden	2.6	2.3	2.5	3.8	2.5
Netherlands	2.8	2.6	2.9	3.2	2.9
Spain	3.2	2.8	3.1	3.5	3.1
Italy	3.1	2.8	3.2	3.3	3.1
France	3.1	2.8	3.3	3.5	3.0
Denmark	2.4	2.2	2.8	3.6	2.4
Switzerland	2.6	2.4	3.1	2.9	2.5
Belgium	2.9	2.6	3.0	3.3	2.9
Czech Rep.	3.3	2.9	3.5	4.2	3.3
Luxembourg	3.0	2.7	3.1	3.3	3.0
Slovenia	3.2	2.8	3.3	3.4	3.1
Estonia	3.9	3.4	3.9	4.2	3.7

Source: SHARE Wave 5 release 1.0.0
Note: Higher values are associated with poorer health states (1=Excellent health; 5=Poor health).

In order to disentangle the association of age and of employment status with the general health status of older people, each employment category can be further disaggregated into three distinct age groups (Table 4). It is then evident that, even when comparing those of very similar age, those in work enjoy better general health than those retired. While this is consistently the case for all age groups, the effect seems more marked for younger respondents and becomes less evident for those aged 60 and above. This may reflect the fact that at earlier ages the path to retirement of older workers may take place through disability benefits, precisely due to health impairment (Fuchs, 2014). Sweden, Denmark, Estonia and Germany stand out as very clear examples where there is a health status gap between those employed and those retired in the 55 to 59 years age group, while France is the only country where this gap is entirely absent. As relatively healthier individuals retire when reaching statutory retirement age, the overall health of older groups of those retired improves in many of the countries covered.

A similar tendency is apparent when comparing those retired with those unemployed aged 60-64, with the former having a marginally better health status. However, this is not the case for the younger age group, where in Austria, Italy, France, Belgium and Slovenia those who have retired early report better health than the unemployed, while for the other countries the opposite is true.

Table 4 General health status by employment and age category, 2013 (mean values)

	Retired			Employed			Unemployed			Other		
	55-59	60-64	65-69	55-59	60-64	65-69	55-59	60-64	65-69	55-59	60-64	65-69
Austria	3.1	2.8	2.9	2.5	2.6	2.7	3.4	-	-	3.0	3.2	3.1
Germany	3.9	3.2	3.3	2.9	2.9	2.7	3.8	3.4	-	3.5	3.5	3.2
Sweden	3.5	2.9	2.5	2.3	2.3	2.2	2.4	2.5	-	4.0	3.6	-
Netherlands	-	2.8	2.8	2.5	2.7	2.4	3.0	2.8	-	3.5	3.1	3.1
Spain	3.4	3.1	3.2	2.7	2.9	2.7	3.1	3.2	-	3.4	3.6	3.5
Italy	2.8	3.1	3.2	2.7	2.8	3.2	3.4	3.1	-	3.1	3.5	3.4
France	2.7	3.0	3.1	2.8	2.8	2.7	3.4	3.2	-	3.6	3.4	3.2
Denmark	3.7	2.3	2.4	2.2	2.1	2.2	2.8	2.9	-	3.6	3.8	3.1
Switzerland	-	2.5	2.7	2.4	2.4	2.3	3.3	-	-	2.9	2.9	2.7
Belgium	2.8	2.9	2.9	2.6	2.6	2.3	3.1	3.0	-	3.4	3.3	3.1
Czech Rep.	3.7	3.2	3.3	2.9	2.9	2.3	3.5	3.6	-	4.3	4.1	-
Luxembourg	3.1	3.0	3.0	2.8	2.3	-	3.0	-	-	3.1	3.4	3.3
Slovenia	3.1	3.1	3.2	2.8	2.8	-	3.3	2.9	-	3.2	3.7	3.5
Estonia	4.2	3.9	3.9	3.4	3.5	3.5	3.9	3.7	-	4.3	4.2	4.1

Source: SHARE Wave 5 release 1.0.0
Note: Higher values are associated to poorer health states (1=Excellent health; 5=Poor health). Results for cells with frequencies lower than 15 observations are not reported and marked with "-".

The effect of health on active involvement in the labour market at older ages is perhaps best exemplified in the aggregate by comparing the proportions of those who remain employed in each health status category. Table 5 illustrates how, at progressively worse health status for the "younger old" the proportion of individuals in retirement, unemployment or other forms of labour inactivity steadily increases.

Table 5 Proportion of people in each employment category by health status and age, 2013 (%)

	55-59				65-69			
	Retired	Employed	Unemployed	Other	Retired	Employed	Unemployed	Other
Excellent	4.7	83.4	3.7	8.2	80.8	13.3	-	5.4
Very good	7.0	79.9	4.2	8.9	85.1	9.6	-	5.2
Good	9.1	69.3	8.1	13.4	84.4	6.7	-	8.5
Fair	11.6	53.9	10.1	24.4	83.5	5.8	-	10.3
Poor	15.3	24.3	13.4	47.0	82.7	2.4	-	14.2
Total	9.1	66.8	7.6	16.5	83.9	7.2	-	8.5

Source: SHARE Wave 5 release 1.0.0
Note: Results for cells with frequencies lower than 15 observations are not reported and marked with "-".

While 83% of those aged 55 to 59 years and reporting excellent health are employed, the proportion of those in employment slowly declines for progressively worse health states, to reach only 54% of those reporting fair health and a mere 24% of those whose health is poor. Conversely, as the reported health status declines the proportions of those who are retired and unemployed increase systematically, with a high concentration of those in poor health in the 'other' category. This effect to some extent reflects the way that the 'other' category is constructed, since alongside housewives – or 'house-husbands' - and older people with other sources of income (e.g. from capital) it includes the permanently sick or disabled, a category that would comprise all cases of very significant health impairments (i.e. poor health).

The same inference follows from analysing the proportion of older people aged 65 to 69, who remain in employment past the statutory retirement age. While 13% of those reporting excellent health continue to work into their late 60s, the proportion quickly falls as health status worsens, to 6% of those in fair health and 2% of those in poor health. These results are in line with findings from the literature that there is a clear

association between health and labour market participation (van Rijn et al., 2014; Cai & Kalb, 2006; Alavinia & Burdorf, 2008; Lindeboom, 2006).

Presence of long-term illness

The presence of long-term illness is used in the following as a more specific indicator of health impairments that are likely to impact on the functional status of a person, and, in consequence, their ability to remain active in the labour market. In fact, a number of studies have shown that having a long-term illness may indeed impact on exit from the labour market, particularly through receipt of disability benefit (van den Berg et al., 2010, van Rijn et al., 2014). Long-term illnesses include all conditions that are likely to affect the health status of an individual over a prolonged (although not specifically defined) period of time and refer mostly to chronic conditions and any other health problems that affect the functioning and well-being of people (i.e. infirmity, disability, physical impairments). As Table 6 shows, the prevalence of long-term illnesses among older people in Europe is high, with virtually one in every two people reporting that they suffer from long-term health conditions. Women are more often affected by long-term illnesses than men (a difference that is statistically significant in an unequal variance t-test (t-test= 3.395, p-value = 0.007), a finding supported by previous evidence (Orfila et al., 2006; Vlassoff, 2007; IHME, 2013). Higher long-term illness prevalence among women is a common tendency in European countries, although there are some exceptions for specific age groups in France, Germany and Austria.

As a general rule prevalence of long-term illness increases with age, but some exceptions to this tendency can be noted (Busse, 2010; Marengoni et al., 2008; Dalstra et al., 2005). For example, the age group 60-64 has the highest prevalence of long-term illness among men in Austria, Germany, the Netherlands, Belgium and Slovenia; and among women in Sweden.

Table 6 Proportion of individuals reporting the presence of a long-term illness by country, age and gender, 2013

	Men			Women		
	55-59	60-64	65-69	55-59	60-64	65-69
Austria	43.6	47.2	42.7	44.6	38.6	49.0
Germany	55.2	61.2	59.4	55.0	53.6	59.7
Sweden	43.3	48.1	50.3	44.5	53.2	50.0
Netherlands	41.7	49.9	43.5	50.3	52.9	54.9
Spain	33.9	38.6	50.0	39.3	44.3	49.8
Italy	31.0	33.5	40.5	31.0	38.8	40.1
France	32.2	41.1	46.1	36.6	40.8	42.6
Denmark	42.7	45.0	49.6	51.2	49.6	47.9
Switzerland	27.7	28.1	33.1	29.0	29.5	36.5
Belgium	41.8	47.0	42.2	45.4	45.1	48.4
Czech Rep.	45.4	45.9	48.5	46.8	48.8	49.9
Luxembourg	44.0	41.3	46.3	44.5	49.0	49.5
Slovenia	36.4	41.1	37.1	34.9	36.5	43.6
Estonia	62.4	65.6	70.2	59.3	68.8	76.3
Total	42.2	46.4	48.0	44.6	47.5	50.7

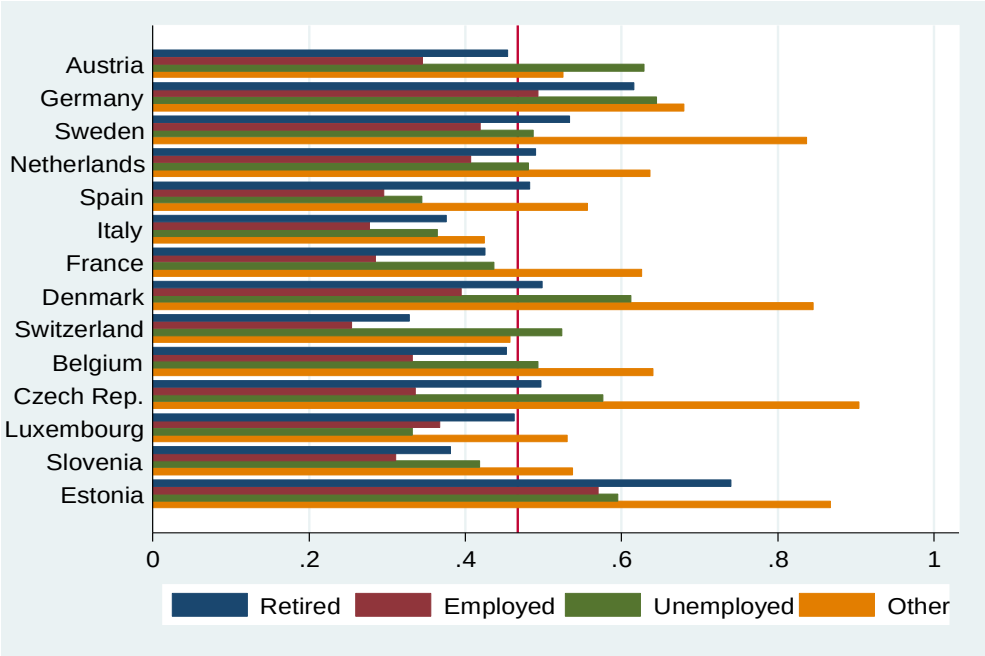
Source: SHARE Wave 5 release 1.0.0

As regards employment status, the prevalence of long-term illness is highest among the 'other' category in most countries covered (Figure 2). The exceptions are Austria and Switzerland where it is the unemployed who have the highest prevalence of long-term illness. Prevalence is lowest among the employed in all countries analysed. The retired have a significantly higher prevalence of long-term illness than those unemployed only in Sweden, Spain, Luxembourg and Estonia, while in the other countries the prevalence is either greater among the unemployed or the difference between the two groups is negligible. It seems therefore that long-term illness may play a more important role in

the 'involuntary' pathways out of the labour market (i.e. unemployment and more importantly inactivity – the 'other' category– which in the current sample may include many people with disabilities) than in the 'voluntary' pathways (early retirement) (van Rijn et al 2014).

However, further disaggregating long-term illness by age and employment reveals a somewhat more complex picture than that portrayed in Figure 2 (see Table 7). For the majority of countries analysed, the prevalence of long-term illness is greater among the 'retired' and 'other' categories in the younger age group. For this age group at least, long-term illness seems to be an important reason for exit from the labour market. This raises a question in relation to the general perceived view of early retirement as a 'voluntary' pathway out of the labour market. The notable exceptions are France, Italy, Belgium and Slovenia. In these countries, the retired in the 55-59 age group have a prevalence rate of long-term illness that is much lower than that of their counterparts who are unemployed and in the 'other' category and closer to that of those employed, i.e. the hypothesis that early retirement is indeed a more 'voluntary' pathway seems to hold for these countries. Overall, while the prevalence of long-term illness in general declines with age among the retired, this trend is less evident, or even absent, among older people in the 'other' category.

Figure 2. Proportion of people between 55 -59 years reporting long-term illness by country and employment status, 2013 (%)



Source: SHARE Wave 5 release 1.0.0

Older people who remain employed have a lower prevalence of long-term illness in all age groups. For these, the prevalence of long-term illness declines with age in Germany, Italy, Denmark, Belgium and Czech Republic, suggesting that only the healthiest people remain employed in their later years. In the other countries covered, the tendency either increases with age or remains relatively constant for those employed.

Table 7 Proportion of individuals suffering from long-term illnesses by country, employment status and age, 2013

	Retired			Employed			Unemployed			Other		
	55-59	60-64	65-69	55-59	60-64	65-69	55-59	60-64	65-69	55-59	60-64	65-69
Austria	55.0	42.4	46.0	34.4	32.7	47.1	65.0	61.5	-	53.8	55.0	48.1
Germany	85.3	59.7	61.2	50.3	49.1	40.0	69.6	59.7	-	67.3	70.5	56.8
Sweden	94.4	64.7	50.8	39.6	43.6	41.9	33.3	54.2	-	87.5	80.6	-
Netherlands	-	47.0	49.4	37.1	45.1	42.2	57.9	39.5	-	69.8	63.8	53.5
Spain	78.4	40.9	48.6	29.4	29.9	30.9	31.3	36.3	-	49.3	59.6	56.5
Italy	29.8	35.2	39.6	28.1	29.1	12.5	43.1	27.3	-	33.9	48.2	45.7
France	27.3	41.9	44.3	27.6	31.2	26.3	38.5	45.7	-	70.8	56.3	44.0
Denmark	75.0	46.8	50.5	41.0	38.3	35.2	63.2	60.9	-	88.3	87.8	62.5
Switzerland	-	29.5	33.9	25.4	25.1	28.0	66.7	-	-	41.3	42.5	64.5
Belgium	38.8	47.0	45.2	35.3	29.5	25.0	53.6	46.0	-	68.0	64.5	54.0
Czech Rep.	64.2	48.1	49.3	34.0	34.0	10.0	60.6	42.9	-	87.9	94.4	-
Luxembourg	52.9	42.0	47.4	36.8	41.5	-	33.3	-	-	52.7	52.9	55.0
Slovenia	35.6	38.5	38.9	30.3	31.0	-	41.7	42.9	-	51.2	50.0	62.5
Estonia	82.1	72.0	74.7	52.4	58.8	69.0	58.6	64.3	-	88.0	86.8	78.3

Source: SHARE Wave 5 release 1.0.0
Note: Results for cells with frequencies lower than 15 observations are not reported and marked with "-".

Not all long-term illnesses affect the labour market situation of older people in the same way or with the same intensity (Solomon et al., 2007, van Rijn et al., 2014). For this reason, it is interesting to explore which conditions, including mental health (measured as depression – see next section), have the greatest effect on the probability of not being employed, after taking account of other confounding factors. The regression is run on the sub-sample of older people who had at least one long-term illness or depression, and includes controls for country of origin and functional impairments (Table 8).

Table 8. Logit estimates for the probability of not being employed, 2013

	Odds ratio	**Std. error**
Age	0.149***	(0.0272)
Age squared	1.019***	(0.0015)
Gender (being female)	1.740***	(0.0648)
Health in general (higher values for worse health)	1.538***	(0.0330)
Presence of depression (EuroD 3+ symptoms)	1.162***	(0.0471)
Doctor told you had:		
Heart attack	1.263***	(0.0858)
High blood pressure or hypertension	1.005	(0.0370)
High blood cholesterol	1.087*	(0.0437)
Stroke	2.040***	(0.2470)
Diabetes or high blood sugar	1.348***	(0.0756)
Chronic lung disease	1.367***	(0.1010)
Cancer	1.236**	(0.0939)
Stomach or duodenal ulcer, peptic ulcer	1.077	(0.0950)
Parkinson disease	1.461	(0.4930)
Cataracts	1.247*	(0.1110)
Hip fracture or femoral fracture	1.563*	(0.2850)
Other fractures	1.101	(0.0774)
Alzheimer's disease, dementia, senility	4.038***	(1.6330)
Other affective/emotional disorders	1.884***	(0.1440)
Rheumatoid arthritis	1.253***	(0.0833)
Osteoarthritis/other rheumatism	1.120*	(0.0506)
Observations	**23,180**	

Source: SHARE Wave 5 release 1.0.0
*Note: ***=significant at 0.001 level; **=significant at 0.01 level; *=significant at 0.1 level.*

Among the long-term illnesses considered, Alzheimer's disease/dementia, stroke and affective/emotional disorders (not including clinical depression) had a strongly negative effect on the probability of being employed. Other conditions with a strong negative effect were some musculoskeletal conditions (e.g. rheumatoid arthritis) and cataracts, but also some conditions – such as diabetes/high blood sugar, chronic lung disease or cancer – that suggest that lifestyles can also have an important impact on employment. The results should however, be interpreted with caution, as the prevalence of the chronic conditions included in the analysis varies markedly: those diseases associated with advanced ageing, high mortality and the risk of institutionalisation have a generally low prevalence rate in the 55-69 age group (e.g. dementia, Alzheimer's disease, stroke), while diseases that have severely debilitating effects on functioning tend to be virtually absent among individuals who remain in employment (e.g. hip fracture, dementia and Alzheimer's disease, Parkinson disease). (See Annex 2, Table A.3, for a detailed breakdown of prevalence rates for each disease considered by employment status and country.)

Mental health: Number of depression symptoms

As the most common forms of mental illness in Europe are anxiety and depression (Wittchen et al., 2011), an indicator for the presence of current depression symptoms is used here as a proxy for mental health status. The EURO-D depression scale (see Table 1 for a detailed item description) was developed to harmonise 5 depression measures, tested and validated in a cross-national study including centres in 11 European countries. The EURO-D is a discrete measure of depressive symptoms, grouped under two main factors: affective suffering and motivation. It ranges from 0to 12, with higher values indicating progressively more severe levels of depression. A EURO-D score higher than 3 (i.e. 4 or more depression symptoms, irrespective of which) is associated with clinically significant depression (Dewey and Prince, 2005).

There are significant country differences in the reported depression symptoms, which for the most part match the differences previously observed for self-reported health (see Table 3), as the latter indicator usually reflects also mental health conditions such as depression (van den Berg et al., 2010). Among those aged 55-69, a significant proportion of people reach the threshold of clinical depression. The prevalence of those with 4 or more symptoms of depression is particularly high in Estonia, Italy and France – close to one third of people – but also in Luxembourg, Belgium, Spain and Germany, where the prevalence rate is around 25%.

Table 9 Prevalence of depression symptoms by country, 2013 (%)

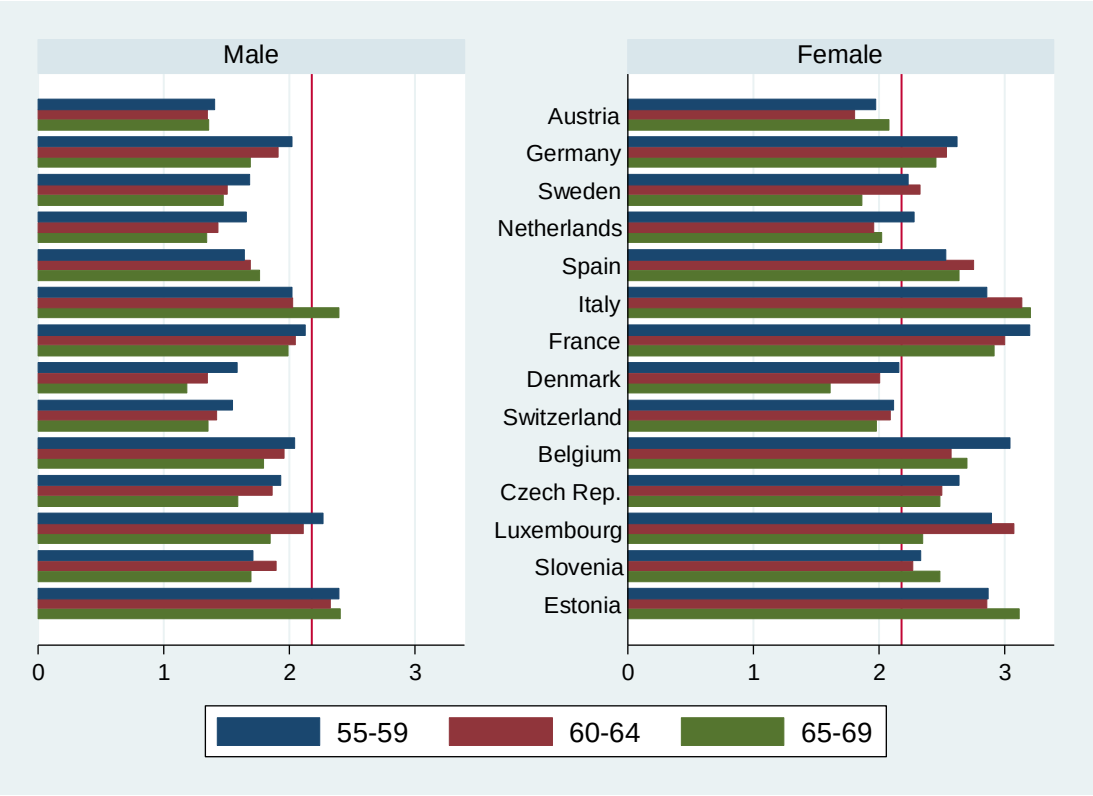
	Number of depression symptoms				
	0	1	2	3	4+
Austria	33.95	23.80	14.85	11.10	16.30
Germany	21.69	22.36	18.70	14.18	23.07
Sweden	25.68	27.13	18.38	12.40	16.41
Netherlands	30.13	24.90	17.50	10.28	17.19
Spain	31.16	21.39	13.67	9.70	24.08
Italy	19.42	20.76	16.32	13.72	29.78
France	17.57	20.12	18.05	15.06	29.20
Denmark	33.10	24.79	16.81	9.43	15.87
Switzerland	28.53	25.05	16.95	13.85	15.62
Belgium	22.29	22.19	15.95	12.81	26.76
Czech Rep.	24.32	21.35	18.24	13.44	22.65
Luxembourg	22.22	18.89	18.00	14.22	26.67
Slovenia	18.75	27.34	20.21	13.91	19.79
Estonia	14.34	19.97	19.15	15.32	31.22
Total	24.50	22.74	17.24	12.74	22.78

Source: SHARE Wave 5 release 1.0.0

Disaggregation by age shows that there is no clear pattern of association between the prevalence of depression and age across countries (Figure 3). This may reflect the multitude of factors that are usually associated with the onset of depression and their contradictory association with age (Buber, 2011). While factors such as bereavement (e.g. loss of a partner), other health problems and functional decline may be closely associated with age, but difficulties in reconciling work and family, stress and financial insecurity (e.g. associated with unemployment) may actually be more prevalent among those in younger age groups. A similarly complex relationship underlies the causal effects between employment and mental health. Cottini and Lucifora (2013) using data from the European Working Conditions Survey find that poor working conditions and low job quality are causally associated with a range of mental health problems (e.g. stress, anxiety, irritability, sleeping problems) among workers and are not restricted to low-paid jobs**.** In fact, male workers in positions of high responsibility incur significantly greater risks of mental health distress than most other worker categories. Effort-reward imbalances have similar negative effects on mental health and the well-being of workers (Bohle et al., 2015). On the other hand, low socio-economic status and reductions in material standards of living are associated with increased depression, further contributing to the precariousness of employment for individuals from disadvantaged backgrounds (Eaton et al., 2001; Lorant et al., 2007; Lorant et al., 2003).

It is very evident, however, that the prevalence of depression is significantly higher among women, in line with previous research results (Dewey and Prince, 2005; WHO, 2001).

Figure 3 Average number of depression symptoms by country, age and gender, 2013



Source: SHARE Wave 5 release 1.0.0

Depression symptoms are consistently higher among the 'other' category and the unemployed across countries, which is consistent with findings in the literature (van Rijn et al., 2014). Sweden stands out as a notable exception as the average number of depression symptoms among the unemployed is not much different from that of the retired or those employed (it is actually lower for unemployed men). While in general those employed have in each country a lower number of symptoms of depression than the other groups, retired men as a rule do not fare much worse that employed men –

except for Spain, Italy, Luxembourg, Slovenia and Estonia. Again, this is in line with findings from a review of the specialised literature, which concluded that mental health problems were mostly associated with 'involuntary' pathways out of employment (van Rijn et al., 2014). While involuntary or forced retirement is significantly associated with mental health problems (Mosca & Barrett, 2014; Gallo et al., 2000), with more significant consequences for older workers (Gallo et al., 2000), voluntary retirement is found to have a low or insignificant negative impact on mental health (Dave et al., 2006; Drentea, 2002) and possibly positive consequences in lowering anxiety (Drentes, 2002).

Table 10 Average number of depression symptoms by gender, employment status and country of residence, 2013

	Retired		Employed		Unemployed		Other	
	Male	Female	Male	Female	Male	Female	Male	Female
Austria	1.31	1.97	1.19	1.64	2.19	3.45	3.43	2.05
Germany	1.77	2.55	1.70	2.41	2.54	2.64	3.32	2.83
Sweden	1.50	1.99	1.44	2.02	1.19	2.05	3.17	3.69
Netherlands	1.24	1.98	1.31	1.84	1.65	2.38	2.86	2.39
Spain	1.72	2.52	1.28	1.93	1.95	3.26	3.27	3.04
Italy	2.11	2.95	1.75	2.48	3.16	4.32	4.65	3.44
France	1.97	2.90	1.93	2.86	2.84	3.55	3.33	3.88
Denmark	1.21	1.67	1.29	1.80	2.38	3.61	2.88	3.08
Switzerland	1.31	1.97	1.37	1.96	-	4.56	2.97	2.27
Belgium	1.81	2.67	1.75	2.57	2.32	3.09	3.10	3.15
Czech Rep.	1.68	2.53	1.59	2.07	3.12	3.44	3.15	4.24
Luxembourg	2.09	2.82	1.73	2.67	2.64	3.00	2.94	2.86
Slovenia	1.84	2.31	1.46	2.06	2.09	3.08	1.96	2.92
Estonia	2.57	3.18	1.91	2.50	2.77	3.36	3.52	3.94
Total	1.74	2.44	1.54	2.21	2.37	3.22	3.20	3.04

Source: SHARE Wave 5 release 1.0.0

Further disaggregation by age and employment status again shows that depression symptoms among the retired are on average much higher in the 55-59 age group, not only in comparison with those retired in older age groups, but also as compared with those in the same age group who are employed, and in some cases even with those who are unemployed or in the 'other' category. As with long-term illness (see Table 7), which showed a similar pattern when disaggregating prevalence rates by age and employment status, these findings could mean that the retirement decision of those in the 55-59 age group may not be completely voluntary, but rather reflect health constraints. It should be emphasised, however, that in countries where the number of people retried in the 55-59 age group is low (namely Sweden and Germany, but also countries for which the values are not shown) the strength of the inference is severely limited.

Table 11 Average number of depression symptoms by age, employment status and country of residence, 2013

	Retired			Employed			Unemployed			Other		
	55-59	60-64	65-69	55-59	60-64	65-69	55-59	60-64	65-69	55-59	60-64	65-69
Austria	1.79	1.62	1.73	1.43	1.17	2.18	2.90	2.00	-	2.41	2.17	2.00
Germany	3.53	2.07	2.11	2.11	2.02	1.55	3.04	2.22	-	3.04	3.05	2.17
Sweden	4.33	2.14	1.66	1.80	1.72	1.70	1.87	1.46	-	4.17	3.34	-
Netherlands	-	1.11	1.67	1.66	1.55	1.02	2.35	1.62	-	2.93	2.30	2.21
Spain	2.53	2.04	1.97	1.58	1.49	1.88	2.43	2.55	-	3.17	3.25	2.81
Italy	2.30	2.24	2.63	2.00	2.26	1.83	4.10	2.76	-	3.21	3.75	3.64
France	1.85	2.49	2.46	2.48	2.27	2.47	3.46	2.89	-	4.15	3.31	3.29
Denmark	-	1.47	1.45	1.64	1.45	1.07	3.05	3.29	-	3.33	3.06	1.88
Switzerland	-	1.50	1.69	1.70	1.67	1.44	4.67	-	-	2.59	2.37	2.00
Belgium	2.39	2.12	2.22	2.30	1.87	2.19	3.25	2.37	-	3.46	3.03	2.68

Czech Rep.	2.93	2.29	2.10	1.88	1.64	0.90	3.47	2.50	-	3.66	3.58	-
Luxembourg	2.73	2.46	2.09	2.20	2.10	-	2.85	-	-	3.02	3.11	1.95
Slovenia	2.12	2.11	2.10	1.78	1.40	-	2.50	2.64	-	2.56	2.58	2.74
Estonia	3.25	2.81	2.98	2.29	2.27	2.13	3.24	2.07	-	3.83	3.58	4.14

Source: SHARE Wave 5 release 1.0.0
Note: Results for cells with frequencies lower than 15 observations are not reported and marked with "-".

Functional status: Number of ADL and IADL limitations

The indices of independence in activities of daily living (ADL) and instrumental activities of daily living (IADL) were developed in the early 1970s as general assessment instruments for evaluating functional status in older adults (Lawton and Brody, 1969; Katz et al., 1970). While ADLs test essential functional abilities related to self-care, the IADLs are geared towards an assessment of an individual's ability to live independently as part of a community. IADLs are considered to involve more complex skills than those accounted for in the ADL scale and are appropriate for use with adults living in community settings rather than in long-term care institutions.

While over the last 45 years IADL and ADL limitation measurements became common place in the assessment of functional status for older adults, it is now understood that their capacity to detect the early stages of functional decline is severely limited. As both indices have been designed to identify cases of advanced dependency by assessing limitations in functional domains, their sensitivity to the progression of severe functional loss – a precursor state to dependency and disability – is very low. Among community-dwelling older adults, both IADL and ADL limitations are uncommon, with generally only one in 10 people reporting any difficulty on ADL tasks (Fieo, 2011) and only a slightly higher prevalence of IADL limitations. These results are confirmed in the sample here, where 93% of older people report no ADL limitations and over 90% report no IADL limitations, as mapped in Table 12.

Table 12 Proportion of European older population suffering from ADL and IADL limitations, 2013 (%)

		No. of IADL limitations								
ADL limitations		0	1	2	3	4	5	6	7	Total
	0	87.21	4.60	0.78	0.20	0.07	0.06	0.02	0.01	92.94
	1	2.41	1.16	0.38	0.13	0.1	0.02	0.03	0.01	4.25
	2	0.31	0.44	0.30	0.12	0.06	0.05	0.03	0.01	1.32
	3	0.10	0.14	0.13	0.10	0.05	0.04	0.03	0.02	0.61
	4	0.03	0.06	0.07	0.06	0.06	0.04	0.02	0.01	0.35
	5	0.01	0.03	0.03	0.04	0.03	0.03	0.02	0.03	0.21
	6	0	0	0	0.03	0.02	0.03	0.04	0.2	0.33
	Total	90.07	6.43	1.71	0.68	0.37	0.27	0.18	0.29	100

Source: SHARE Wave 5 release 1.0.0

IADLs are associated with more complex tasks and can capture functional loss at earlier stages than ADLs (an aspect that is also reflected in the higher prevalence of IADL limitations), while still capturing a level of functional impairment that is highly likely to affect a person's ability to work. As a result, in the following, the analysis of functional status is based only on limitations in IADL domains.

As with physical health, large country variations are recorded in the prevalence of IADL limitations in the older population (Table 13). Fewer than 8% of respondents reported functional limitations in Switzerland and Sweden (countries where the general health status of older people is also consistently placed above the European average), and also in Italy and Slovenia. Estonia, with almost 15% of older individuals suffering from IADL limitations, registers the highest prevalence; while the Netherlands, Belgium, Luxembourg and the Czech Republic are also above the European average. It is

important to note that the majority of older people who suffer from functional loss, irrespective of the country they live in, report only one IADL limitation. Cases of three or more limitations in IADLs, which would be associated with significant loss of independence, are exceedingly rare, reported by only around 3% of the population[26]. Exceptionally, in Estonia, functional decline afflicts a large proportion of older people, with 5.5% reporting two or more IADL limitations and an additional 9% suffering from limitations in one domain of independent daily living.

As declines in functioning limit an individual's ability to independently manage key tasks of everyday life, they are (not surprisingly) associated with reductions in the ability to remain active in the labour market. Although prevalence rates for IADL limitations among retired people generally mirror those in the general population, those in employment enjoy much better functioning (Table 14). On average, only 2.6% of older men in employment report IADL limitations compared with a rate almost 4 times higher in the retired group. In some countries covered, the differences are even more marked, attesting to a substantial functional advantage in the older groups that remain active: in Spain, only just over 1% of employed men report IADL limitations, but 9% of the retired; similarly, in the Czech Republic (2% of employed but 11% of retired) and Estonia (just under 4% of the employed but 19% of the retired) older men still in employment report significantly better functional status.

Table 13 Proportion of people reporting IADL limitations, 2013 (%)

	0	1	2	3	4	5	6	7	1+
Austria	90.29	6.33	1.84	0.43	0.34	0.39	0.29	0.10	9.71
Germany	90.62	5.90	1.85	0.52	0.44	0.3	0.22	0.15	9.38
Sweden	92.11	5.49	1.26	0.44	0.26	0.35	0.04	0.04	7.89
Netherlands	89.83	6.87	1.74	0.71	0.31	0.22	0.00	0.31	10.17
Spain	90.13	6.68	1.54	0.65	0.27	0.27	0.10	0.34	9.87
Italy	92.43	3.72	0.84	0.53	0.49	0.13	0.44	1.42	7.57
France	90.94	6.21	1.71	0.66	0.13	0.09	0.13	0.13	9.06
Denmark	90.74	6.25	1.85	0.65	0.23	0.09	0.14	0.05	9.26
Switzerland	94.89	4.10	0.50	0.25	0.06	0.00	0.13	0.06	5.11
Belgium	87.71	7.64	2.50	1.21	0.39	0.14	0.18	0.21	12.29
Czech Rep.	88.23	7.51	2.04	0.92	0.48	0.38	0.16	0.29	11.77
Luxembourg	89.25	6.95	1.95	0.87	0.22	0.43	0.22	0.11	10.75
Slovenia	92.46	5.10	0.75	0.27	0.54	0.48	0.07	0.34	7.54
Estonia	85.24	9.26	2.53	1.00	0.82	0.48	0.33	0.33	14.76
Total	90.07	6.43	1.71	0.68	0.37	0.27	0.18	0.29	9.93

Source: SHARE Wave 5 release 1.0.0

The gap is equally evident for women, with the same robust advantage for those employed over those retired, and even more marked differences between groups. IADL limitation prevalence rates for retired women are 7.5 percentage points higher than for those in active employment in Spain, 7 percentage points in Denmark, over 9 points in the Czech Republic, 10 points in Luxembourg and a worrisome 14 points in Estonia. The widening gap is a result of the very high prevalence rates for women as compared with men in the retired group, although even for older people in employment a clear gender gap emerges.

The finding is consistent with an ever growing literature attesting to marked gender differences in functioning among older people, with women more likely to report ADL/IADL limitations and functional impairments. Moreover, research results have confirmed that this differential cannot be accounted for by inaccurate reporting (i.e. over-reporting by women as compared with men), but can instead be traced back to a

[26] This result should not be surprising, as SHARE contains data only on community-dwelling older individuals. In the general population, i.e. accounting also for institutionalised older people, prevalence rates are expected to be higher.

stable health disadvantage of older women with respect to men (Merrill et al., 1997, Murtagh and Hubert, 2004). As the previous results also show, women report worse general health than men, a higher prevalence of chronic and long-term conditions in all age categories, and markedly more depression symptoms. It is therefore not surprising that all these health deficits add up to much greater functional loss among women.

Table 14 Proportion of people reporting one or more IADL limitation, 2013 (%)

	Retired		Employed		Unemployed		Other	
	Male	Female	Male	Female	Male	Female	Male	Female
Austria	8.90	11.02	2.80	5.12	15.63	13.64	43.48	15.98
Germany	9.51	11.34	3.15	6.29	5.88	13.56	40.96	15.97
Sweden	8.07	11.29	2.06	5.40	4.76	0.00	33.33	32.35
Netherlands	4.29	11.83	2.91	6.99	6.98	8.82	26.67	21.17
Spain	9.39	11.78	1.25	4.33	5.88	8.77	28.83	18.00
Italy	4.60	10.71	2.05	3.75	4.41	10.71	26.83	11.98
France	5.76	11.34	2.93	6.62	6.98	9.09	23.40	26.54
Denmark	8.17	11.76	3.25	4.64	11.54	27.03	28.07	34.75
Switzerland	3.86	7.81	1.18	3.98	-	12.50	33.33	8.50
Belgium	8.95	14.93	4.13	7.16	8.77	12.12	37.29	21.39
Czech Rep.	11.27	14.23	2.04	5.07	17.14	14.00	35.80	30.30
Luxembourg	6.38	16.44	1.68	5.94	8.33	25.00	22.50	16.08
Slovenia	6.31	8.28	3.50	2.65	8.16	8.11	13.33	23.81
Estonia	18.74	21.00	3.59	7.15	14.58	19.44	32.00	34.32

Source: SHARE Wave 5 release 1.0.0
Note: Results for cells with frequencies lower than 15 observations are not reported and marked with "-".

A gender gap can also be observed for older individuals in unemployment, albeit some exceptions can be identified: in Austria, Sweden, Slovenia and the Czech Republic, a higher proportion of men report functional loss. However, these results are more likely to reflect sample idiosyncrasies rather than a robust tendency. Finally, the 'other' category stands out as having a very high prevalence of IADL limitations with respect to all other employment categories considered, and a pronounced disadvantage in functioning among men compared with women. While some exceptions remain (e.g. France, Estonia, Slovenia and Denmark) and while in some countries differences are marginal (e.g. in Sweden), an inversion of the gender gap is apparent. However, both results are likely to be statistical artefacts rather than real effects. While the high rates of loss of functioning are due to the inclusion in this category of the permanently sick or disabled, the gender differences can be traced back to the heterogeneous nature of this category, with an unequal gender distribution[27].

If the focus is exclusively on those older people who report suffering from one or more IADL limitations, a clear tendency of concentration in the retired and 'other' employment categories can be discerned. Table 15 shows the relative frequency of older people with functional loss in each employment group and the absolute numbers of people by category. It is important to note this final aspect, as the distribution between groups is highly variable, with especially low concentrations in the unemployed category. In fact, the vast majority of older people with functional limitations are either retired or registered as permanently sick or disabled (i.e. in the 'other' category), although the relative proportion varies by country. In Austria, Sweden, France, Estonia, the Czech Republic and Slovenia, a considerable proportion of people with IADL limitations report being retired rather than inactive due to permanent disability or sickness, whereas in

[27] As virtually all homemakers in our sample are women, and as rentiers, students and volunteers represent only a very small part of the population, the average value for men in the 'other' category is driven by those who report permanent sickness and disability, and who, not surprisingly, are much more likely to suffer from functional impairments than the average older adult. For a breakdown of the 'other' category in more homogeneous groups, please refer to Table A.3 in the Annex.

the Netherlands and Spain the opposite is true. In the remaining countries covered, the proportions are more balanced.

On average, only 15% of older people with functional limitations report being in employment, within a range that varies between 7% in Slovenia and 28% in Switzerland.

Table 15 Employment status of people suffering from one or more IADL limitation, 2013 (%)

	Retired		Employed		Unemployed		Other	
	%	No.	%	No.	%	No.	%	No.
Austria	68.5	137	9.0	18	4.0	8	18.5	37
Germany	42.4	106	22.4	56	4.8	12	30.4	76
Sweden	56.8	100	24.4	43	0.6	1	18.2	32
Netherlands	28.0	63	18.2	41	2.7	6	51.1	115
Spain	33.0	94	8.8	25	6.7	19	51.6	147
Italy	43.7	73	10.2	17	3.6	6	42.5	71
France	52.7	108	17.6	36	3.4	7	26.3	54
Denmark	42.4	83	21.9	43	6.6	13	29.1	57
Switzerland	38.8	31	27.5	22	3.8	3	30.0	24
Belgium	44.1	148	14.9	50	5.1	17	36.0	121
Czech Rep.	75.6	276	7.4	27	3.6	13	13.4	49
Luxembourg	44.2	42	8.4	8	4.2	4	43.2	41
Slovenia	69.4	77	7.2	8	6.3	7	17.1	19
Estonia	53.9	213	17.7	70	3.5	14	24.8	98
Total	50.3	1,551	15.0	464	4.2	130	30.5	941

Source: SHARE Wave 5 release 1.0.0

Whether this result reflects differential achievement in national level policies for including people with disabilities and functional limitations in the labour market, or cultural and socio-economic incentives to remain active despite declining functioning, cannot be established from the data. It is, however, clear from the examples of Germany, Sweden, Denmark and Switzerland, where more than one in 5 people in the sample report being employed, that older people can be encouraged to remain active despite declining health and functional abilities.

Concluding remarks

The above findings show that a significant share of people aged 55-69 have less than perfect health according to the different health measures considered. Prevalence of poorer health increases with age and disproportionally affects women – a worrying fact from the point of view of equity of health outcomes. This translates into adverse outcomes, particularly with regard to the possibility of extending their working lives.

A large body of research has established health as a significant factor affecting the labour market participation of older people, with those in poorer health more likely not to be employed (van den Berg et al., 2009; van Rijn et al., 2014). Moreover, health seems to be strongly associated with 'involuntary' withdrawal from employment, through unemployment as well as disability. The findings presented in this Research Note concur with these findings. Prevalence of health problems is found to be significantly higher for those unemployed and in the 'other' category and this holds regardless of the health measure used. It suggests that health is indeed an important factor affecting employment of older people and policies aimed at extending working lives.

In the case of those retired, examination of the 55-59 age group shows that the prevalence of health problems was in general closer to that of the unemployed or the 'inactive other' than to those employed. Early retirement at this age could, therefore, be an involuntary decision driven by health problems. This points to the importance of taking account of different exit pathways from employment when considering the impact

of health on the exit of older people from the labour market; in other words, distinguishing between the role of health limitations and that of early exit incentives built into the social protection system (French, 2005).

As indicated in the first part of this Research Note, many European states have taken active steps to reduce the take up of early exit benefits (including early retirement pensions and access to disability benefits) with positive outcomes in many cases. The challenge remains to balance such measures with increased work opportunities for older and disabled workers, improving working conditions (notably workplace health and safety) and strengthening prevention, and improving incentives for employers to retain older workers.

There are significant country differences in the prevalence of health problems among different groups of older workers. While rankings based on self-perceived variables (such as health) may be hampered by cultural factors or issues of harmonisation of questionnaires, there is some consistency in the differences found using more objective indicators. In some countries, older people may face genuinely greater difficulties in remaining employed, as a reflection of different institutional factors – although the exact effect of these factors is not always straightforward (Bambra and Eikemo 2008; Alavinia and Burdorf, 2008). For example, generosity of social services (both in amounts and population coverage) could be regarded as an incentive to leave the labour market or, alternatively, as providing sufficient protection to insulate older workers from financial insecurity and its detrimental effects on health. This is a key area deserving further research.

Finally, there are a number of caveats to the findings presented here that should be borne in mind. The relationship between health and labour market attachment is complex and mediated by a number of factors, such as education, income and institutional factors (e.g. eligibility rules for pension or disability benefits) (Bambra and Eikemo 2008; Alavinia and Burdorf, 2008; van den Berg et al., 2009; van den Berg et al., 2010; van Rijn et al., 2014). Accounting for all these factors was beyond the scope of this Research Note (although differences in education were accounted for in the regression analysis), but their potential influence on the results must be acknowledged. The results presented here refer only to associations between health and labour market outcomes and there is strong evidence that health is both a determinant and a consequence of labour market attachment (Lindeboom, 2006; Vaalavuo, 2016; Bartley et al., 2004, Thomas et al., 2005) – for example, unemployment spells result in deteriorating health, particularly mental health.

Finally, the definitions used for employment status in the SHARE dataset, which is the basis of the analysis, leave room for ambiguity as to the classification of older people as retired, unemployed or inactive. In particular, it is not straightforward to associate those receiving disability benefits with the 'other inactive' category. As such, further research, ideally drawing on more detailed and comparable data, is needed in order to confirm or modify the results presented here.

References

Alavinia, S. M., & Burdorf, A. (2008). Unemployment and retirement and ill-health: a cross-sectional analysis across European countries. International archives of occupational and environmental health, 82(1): 39-45.

Aneshensel, C. S. (1986). Marital and employment role-strain, social support, and depression among adult women. Stress, social support, and women, 99-114.

Bambra, C., & Eikemo, T. (2008). Welfare state regimes, unemployment and health: a comparative study of the relationship between unemployment and self-reported health in 23 European countries. Journal of epidemiology and community health: 63:92–98.

Behncke, S. (2012). Does retirement trigger ill health?. Health economics,21(3), 282-300.

Bekker, S., & Wilthagen, L. (2014) Stimulating Job Demand: The Design of Effective Hiring Subsidies in Europe. European Employment Policy Observatory (EEPO) Review.

Black, N (2013) Patient reported outcome measures could help transform healthcare. BMJ, 346: f167

BMASK, Sozialbericht 2009-2010. Ressortaktivitäten und sozialpolitische Analysen, Wien 2010.

BMASK, Sozialbericht 2011-2012. Ressortaktivitäten und sozialpolitische Analysen, Wien 2012.

BMASK, Sozialbericht 2013-2014. Ressortaktivitäten und sozialpolitische Analysen, Wien 2014.

Bohle, P., Quinlan, M., McNamara, M., Pitts, C., & Willaby, H. (2015). Health and well-being of older workers: comparing their associations with effort–reward imbalance and Pressure, Disorganisation and Regulatory Failure.Work & Stress, 29(2), 114-127.

Bonassi St., Pasqualetti P., Moroni R., Data Mapping Project Italy. Joint Programming Initiative More Years, Better Lives. The Potential and Challenges of Demographic Change, www.jpi-dataproject.eu 2012.

Börsch-Supan, A. and Jürges, H. (Eds.). (2005). The Survey of Health, Ageing and Retirement in Europe – Methodology. Mannheim: MEA.

Bound, J. (1991). Self-Reported Versus Objective Measures of Health in Retirement Models. Journal of Human Resources, 106-138.

Bound, J., Schoenbaum, M., Stinebrickner, T. R., & Waidmann, T. (1999). The dynamic effects of health on the labor force transitions of older workers.Labour Economics, 6(2), 179-202.

Brown, P., & Vickerstaff, S. (2011). Health subjectivities and labor market participation pessimism and older workers' attitudes and narratives around retirement in the United Kingdom. Research on aging, 33(5), 529-550.

Buber, I., & Engelhardt, H. (2011). The association between age and depressive symptoms among older men and women in Europe. Findings from SHARE. Comparative Population Studies, 36(1).

Busse, R. (2010). Tackling chronic disease in Europe: strategies, interventions and challenges (No. 20). WHO Regional Office Europe.

Cai, L., & Kalb, G. (2006). Health status and labour force participation: evidence from Australia. Health economics, 15(3), 241-261.

Christl M., Kucsera D., Lorenz H., Jung, älter, arbeitslos? Wie Ältere länger in Beschäftigung gehalten werden können, ohne die Jungen in die Arbeitslosigkeit zu treiben, Agenda Austria 2015.

Coe, N. B., & Zamarro, G. (2011). Retirement effects on health in Europe.Journal of health economics, 30(1), 77-86.

Dalstra, J. A., Kunst, A. E., Borrell, C., Breeze, E., Cambois, E., Costa, G., ... & Regidor, E. (2005). Socioeconomic differences in the prevalence of common chronic diseases: an overview of eight European countries.International journal of epidemiology, 34(2), 316-326.

Dave, D., Rashad, I., & Spasojevic, J. (2006). The effects of retirement on physical and mental health outcomes (No. w12123). National Bureau of Economic Research.

Dewey, M. E. & Prince, M. J. (2005). Mental Health. In A. Börsch-Supan, H. Jürges (Eds.), Health, Ageing and Retirement in Europe - First Results from the Survey of Health, Ageing and Retirement in Europe (pp. 108-117). Mannheim, MEA Eigenverlag.

Diehr, P. H., Thielke, S. M., Newman, A. B., Hirsch, C., & Tracy, R. (2013). Decline in health for older adults: five-year change in 13 key measures of standardized health. The Journals of Gerontology Series A: Biological Sciences and Medical Sciences, glt038.

Disney, R., Emmerson, C., & Wakefield, M. (2006). Ill health and retirement in Britain: A panel data-based analysis. Journal of health economics, 25(4), 621-649.

Doshi, J. A., Cen, L., & Polsky, D. (2008). Depression and Retirement in Late Middle-Aged US Workers. Health services research, 43(2), 693-713.

Drentea, P. (2002). Retirement and mental health. Journal of aging and health, 14(2), 167-194.

Duvekot, R. (2010) European Inventory on Validation of Nonformal and Informal Learning 2010 Country Report: Netherlands.

Eaton, W. W., Muntaner, C., Bovasso, G., & Smith, C. (2001). Socioeconomic status and depressive syndrome: the role of inter-and intra-generational mobility, government assistance, and work environment.Journal of Health and Social Behavior, 42(3), 277.

ESF Age: http://www.careerandage.eu/prevsite/

Eurostat (2013) Statistics Explained: Quality of life indicators – health. Available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/Quality_of_life_indicators_-_health

Eurostat Database, http://ec.europa.eu/eurostat/data/database.

Ferraro, K. F. (1980). Self-ratings of health among the old and the old-old.Journal of Health and Social Behavior, 377-383.

Fieo, R. A., Austin, E. J., Starr, J., & Deary, I. J. (2011). Calibrating ADL-IADL scales to improve measurement accuracy and to extend the disability construct into the preclinical range: a systematic review. BMC Geriatrics, 11(42).

French, E. (2005). The effects of health, wealth, and wages on labour supply and retirement behaviour. The Review of Economic Studies, 72(2), 395-427.

Fuchs, Michael (2014) Quota Systems for Disabled Persons: Parameters, Aspects, Effectivity, European Centre for Social Welfare Policy and Research, Policy Brief March 2014

Gallo, W. T., Bradley, E. H., Siegel, M., & Kasl, S. V. (2000). Health effects of involuntary job loss among older workers findings from the health and retirement survey. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 55(3), S131-S140.

Griffin, J. M., Fuhrer, R., Stansfeld, S. A., & Marmot, M. (2002). The importance of low control at work and home on depression and anxiety: do these effects vary by gender and social class?. Social science & medicine,54(5), 783-798.

Herzog, A. Regula; House, James S.; Morgan, James N. (1991) Relation of work and retirement to health and well-being in older age, Psychology and Aging, Vol 6(2), Jun 1991, 202-211.

Hofmarcher, M., Schulmann, K., Winkelmann, J., Zolyomi, E. & Rodrigues, R. (2013) Country report: Austria. Data Mapping Project of the Joint Programming Initiative "More Years, Better Lives – The Potential and Challenges of Demographic Change".

Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: a review of twenty-seven community studies. Journal of health and social behavior, 21-37.

Ilmarinen, J. (2006) Towards a longer worklife! Ageing and the quality of worklife in the European Union. Finnish Institute of Occupational Health, Ministry of Social Affairs and Health, Helsinki.

Institute for Health Metrics and Evaluation, Human Development Network, The World Bank. The Global Burden of Disease: Generating Evidence, Guiding Policy – Europe and Central Asia Regional Edition. Seattle, WA: IHME, 2013.

Gruber, J. & Wise, D.A. (Eds.),(2004) Social Security Programs and Retirement Around the World: Micro Estimation, University of Chicago Press

Jürges, H. (2007). True health vs response styles: exploring cross-country differences in self-reported health. Health economics, 16(2), 163-178.

Jylhä, M. (2009). What is self-rated health and why does it predict mortality? Towards a unified conceptual model. Social science & medicine, 69(3), 307-316.

Kaplan, G. A., & Camacho, T. (1983). Perceived health and mortality: a nine-year follow-up of the human Population Laboratory Cohort. American Journal of Epidemiology, 117, 292–304

Kasl, S.V., Jones, B.A. (2000) The impact of job loss and retirement on health. Ch. 6 in L.F. Berkman and I. Kawachi (eds.) Social Epidemiology. New York: Oxford University Press.

Katz, S., Down, T.D., Cash, H.R., & Grotz, R.C. (1970) Progress in the development of the index of ADL. The Gerontologist, 10(1), 20-30

Kim, J. E., & Moen, P. (2002). Retirement transitions, gender, and psychological well-being a life-course, ecological model. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 57(3), P212-P222.

Murtagh, K.N. & Hubert, H.B. (2004) Gender Differences in Physical Disability Among an Elderly Cohort. American Journal of Public Health: Vol. 94, No. 8, pp. 1406-1411.

LABREF Database, https://webgate.ec.europa.eu/labref/public/.

LaRue, A., Bank, L., Jarvik, U., & Hetland, M. (1979). Health in old age: how do physicians' ratings and self-ratings compare?. Journal of Gerontology,34(5), 687-691.

Lawton, M.P., & Brody, E.M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. The Gerontologist, 9(3), 179-186.

Lindeboom, M. (2006). Health and work of older workers.In: Jones A. (ed.) The Elgar companion to health economics, p. 26, Cheltenham, UK.

Lorant, V., Croux, C., Weich, S., Deliege, D., Mackenbach, J., & Ansseau, M. (2007). Depression and socio-economic risk factors: 7-year longitudinal population study. The British Journal of Psychiatry, 190(4), 293-298.

Lorant, V., Deliège, D., Eaton, W., Robert, A., Philippot, P., & Ansseau, M. (2003). Socioeconomic inequalities in depression: a meta-analysis. American journal of epidemiology, 157(2), 98-112.

Mackenbach, J. P. (2006). Health inequalities: Europe in profile. Produced by COI for the Department of Health.

Mairhuber I., Prammer E., Waginger U., Steinbauer B., National Report Austria 2015, in: Hasselhorn H.M., Apt W., Understanding employment participation of older workers: Creating a knowledge base for future labour market challenges. Research Report. Federal Ministry of Labour and Social Affairs (BMAS) and Federal Institute for Occupational Safety and Health (BAuA), Berlin 2015.

Malter, F. and Börsch-Supan, A. (Eds.) (2015). SHARE Wave 5: Innovations & Methodology. Munich: MEA, Max Planck Institute for Social Law and Social Policy.

Marengoni, A., Winblad, B., Karp, A., & Fratiglioni, L. (2008). Prevalence of chronic diseases and multimorbidity among the elderly population in Sweden.American journal of public health, 98(7), 1198-1200.

Martin, L. G., Schoeni, R. F., Freedman, V. A., & Andreski, P. (2007). Feeling better? Trends in general health status. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 62(1), S11-S21.

Merrill, S. S., Seeman, T. E., Kasl, S. V., & Berkman, L. F. (1997). Gender differences in the comparison of self-reported disability and performance measures. The Journals of Gerontology Series A: Biological Sciences and Medical Sciences, 52(1), M19-M26.

Miilunpalo, S., Vuori, I., Oja, P., Pasanen, M., & Urponen, H. (1997). Self-rated health status as a health measure: the predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. Journal of clinical epidemiology, 50(5), 517-528.

Mosca, I., & Barrett, A. (2014). The Impact of Voluntary and Involuntary Retirement on Mental Health: Evidence from Older Irish Adults.

Mossey, J. M., & Shapiro, E. (1982). Self-rated health: a predictor of mortality among the elderly. American Journal of Public Health, 72(8), 800–808

Nationaal Platform Duurzame Inzetbaarheid (NPDI), http://www.npdi.nl/

Neuman, K. (2008). Quit your job and get healthier? The effect of retirement on health. Journal of Labor Research, 29(2), 177-201.

OECD (2012) Thematic follow-up review of policies to improve labour market prospects for older workers: The Netherlands. Paris, OECD.

OECD (2014) Ageing and Employment Policies: Netherlands 2014. Paris, OECD.

OECD (2015) Ageing and Employment Policies: Poland 2015. Paris, OECD.

OECD Statistics, stats.oecd.org/.

OECD, Economic Surveys Italy 2015, Paris 2015.

OECD, Pensions at a Glance 2007: Public Policies across OECD Countries, Paris 2007.

OECD, Pensions at a Glance 2011: Retirement-income Systems in OECD and G20 Countries, Paris 2011.

OECD, Pensions at a Glance 2013: OECD and G20 Indicators, Paris 2013.

OECD, Thematic Follow-Up Review of Policies to improve Labour Market Prospects for older Workers. Italy, Paris 2012.

Orfila, F., Ferrer, M., Lamarca, R., Tebe, C., Domingo-Salvany, A., & Alonso, J. (2006). Gender differences in health-related quality of life among the elderly: the role of objective functional capacity and chronic conditions.Social science & medicine, 63(9), 2367-2380.

Ringen, S. (1995). Well-being, measurement, and preferences. Acta Sociologica, 38(1), 3-15.

Robine, J. M., Jagger, C., & Euro-REVES Grp. (2003). Creating a coherent set of indicators to monitor health across Europe – the euro-REVES 2 project. European Journal of Public Health, 13, 6–14.

Salomon, J. A., Tandon, A., & Murray, C. J. (2004). Comparability of self rated health: cross sectional multi-country survey using anchoring vignettes.Bmj, 328(7434), 258.

Sen A. (2002) Health: perception versus observation. BMJ ; 324: 860-1 doi:10.1136/bmj.324.7342.860

Sharpley, C. F., & Yardley, P. (1999). The relationship between cognitive hardiness, explanatory style, and depression-happiness in post-retirement men and women. Australian Psychologist, 34(3), 198-203.

Siegreist, J., Wahrendorf, M., Von Dem Knesebeck, O., Jürges, H., & Börsch-Supan, A. (2007). Quality of work, well-being, and intended early retirement of older employees—baseline results from the SHARE Study. The European Journal of Public Health, 17(1), 62-68.

Sienkiewitz, L. (2014) Stimulating Job Demand: The design of effective hiring subsidies in Europe. Country Report Poland. European Employment Policy Observatory (EEPO) Review.

Skugor, D. & Bekker, S. (2012) EEO Review: Employment policies to promote active ageing, 2012: The Netherlands. European Employment Observatory.

Social Protection Committee (2008) Promoting longer working lives through pension reforms: Early Exits from the labour market. Available at: ec.europa.eu/social/BlobServlet?docId=746&langId=en

Solomon C, Poole J, Palmer KT, et al. (2007) Health-related job loss: findings from a community-based survey. Occupational and environmental medicine, 64: 144–149.

Statistik Austria, www.statistik.at.

Staubli, S., & Zweimüller, J. (2013). Does raising the early retirement age increase employment of older workers?. Journal of public economics, 108, 17-32.

Stichting van de Arbeid (2007) What is a Health and Safety Catalogue?

Strategic Social Report 2015, Poland.

Vaalavuo M. (2016) Health and (un)employment: the relationship. National Institute for Health and Welfare: Data Brief 1, Helsinki

van den Berg, T., Elders, L., de Zwart, B., & Burdorf, A. (2008). The effects of work-related and individual factors on the Work Ability Index: a systematic review. Occupational and environmental medicine, 66:211–220.

van den Berg, T., Schuring, M., Avendano, M., Mackenbach, J., & Burdorf, A. (2010). The impact of ill health on exit from paid employment in Europe among older workers. Occupational and Environmental Medicine, 67(12), 845-852.

van Rijn RM, Robroek SJ, Brouwer S, Burdorf A (2014) Influence of poor health on exit from paid employment: a systematic review. Occupational and environmental medicine, 71: 295–301.

Vlassoff, C. (2007). Gender differences in determinants and consequences of health and illness. Journal of Health, Population and Nutrition, 47-61.

Wittchen, H. U., Jacobi, F., Rehm, J., Gustavsson, A., Svensson, M., Jönsson, B., & Steinhausen, H. C. (2011). The size and burden of mental disorders and other disorders of the brain in Europe 2010. European Neuropsychopharmacology, 21(9): 655-679.

World Health Organization (1948) Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, June 19-22, 1946. In Basic Documents. 15th ed. Geneva, Switzerland.

World Health Organization, Statistics Netherlands. (1996). Health interview surveys: Towards international harmonization of methods and instruments. Copenhagen: WHO Office for Europe.

World Health Organization. (2001). The World Health Report 2001: Mental health: new understanding, new hope. Geneva: World Health Organization.

Zukowski, M. (2014) Pensions, health and long-term care, Poland. ASISP Country Document, Update 2014.

Annex 1 Men and women in receipt of benefits, 50-64

Table A.1 Share of men aged 50-64 receiving benefits relative to share receiving old-age pensions, 2012

	% men receiving benefit (all benefits included)			%-point difference, all benefits less old-age pension*		
	50-54	55-59	60-64	50-54	55-59	60-64
BE	5.1	17.5	63.7	3.6	11.7	21.6
BG	5.5	17.9	54.3	2.3	5.8	7.4
CZ	4.9	12.6	68.7	4.0	10.0	8.3
DK	2.5	6.0	49.4	2.2	5.0	7.5
DE	5.9	12.8	45.9	2.8	1.8	4.1
EE	8.1	24.3	68.5	6.7	16.1	12.1
IE	2.7	12.7	30.7	0.6	2.6	5.4
EL	6.7	24.6	63.1	0.7	1.9	3.3
ES	5.0	14.6	47.9	4.4	10.4	22.5
FR	7.0	21.2	78.1	4.9	9.9	2.1
HR	4.0	18.5	59.4	4.0	15.9	22.2
IT	2.0	18.3	69.8	1.2	2.7	2.5
CY	0.5	10.2	47.2	0.5	5.0	1.7
LV	6.3	15.2	75.6	6.1	10.7	5.9
LT	7.8	15.3	67.5	5.8	12.3	14.8
LU	5.0	30.8	73.9	3.8	5.7	3.8
HU	0.3	1.6	61.5	0.3	0.6	0.7
MT	5.7	13.5	81.9	1.4	9.5	2.4
NL	4.2	9.6	31.8	4.1	8.3	8.8
AT	3.8	18.1	74.2	2.6	9.1	9.0
PL	8.4	19.6	66.4	4.6	12.9	17.9
PT	5.1	24.4	62.0	4.0	11.0	17.8
RO	5.4	27.0	71.1	3.3	11.6	12.3
SI	5.1	25.5	82.8	3.6	8.0	7.4
SK	6.2	14.9	72.3	4.6	11.3	15.1
FI	5.6	13.7	58.4	4.3	9.0	13.5
SE	2.0	5.3	30.5	1.9	2.9	5.5
UK	7.4	25.2	54.3	0.6	1.0	1.7
EU	5.4	17.6	59.8	3.0	6.4	7.8

*Note: * The % of men receiving benefits less the % of men receiving old-age pensions.*

Source: Eurostat, Labour Force Survey, ad hoc module, 2012

Table A.2 Share of women aged 50-64 receiving benefits relative to share receiving old-age pensions, 2012

	% women receiving benefit (all benefits included)			%-point difference, all benefits less old-age pension		
	50-54	55-59	60-64	50-54	55-59	60-64
BE	4.9	13.6	58.2	3.9	10.6	17.3
BG	2.9	15.5	80.3	2.6	8.1	4.9
CZ	5.6	36.1	95.7	5.6	9.2	2.4
DK	4.0	7.8	59.0	3.7	6.4	12.5
DE	7.5	23.9	58.0	4.6	14.8	13.1
EE	8.2	21.7	79.3	7.9	16.9	6.7
IE	3.1	11.8	29.9	1.8	4.1	8.6
EL	13.2	34.7	63.2	1.3	1.9	5.3
ES	6.8	14.7	40.5	6.5	13.5	20.3
FR	6.6	19.3	74.0	4.9	11.3	3.7
HR	5.7	37.6	83.2	5.1	14.0	21.4
IT	2.8	13.0	71.6	2.2	3.7	3.3
CY	2.3	8.4	42.9	2.3	5.4	6.7
LV	5.5	17.1	76.4	3.9	9.8	3.8
LT	7.2	17.6	89.7	7.1	12.3	2.6
LU	8.6	24.7	71.6	6.4	11.1	14.0
HU	1.5	12.7	70.9	1.4	2.6	1.6
MT	1.2	6.0	90.5	0.0	4.8	4.2
NL	5.8	12.6	29.8	5.5	11.6	13.9
AT	5.0	32.9	92.1	3.8	8.4	5.5
PL	7.1	41.1	94.7	5.8	13.3	3.7
PT	6.8	22.5	53.1	6.5	11.5	21.1
RO	7.4	42.4	88.7	4.9	10.8	8.2
SI	9.5	52.0	93.0	4.4	5.8	3.7
SK	9.5	38.0	97.6	9.1	11.5	1.6
FI	5.2	15.2	63.1	5.1	12.3	16.1
SE	4.9	8.4	36.0	4.7	6.3	12.1
UK	6.3	17.1	79.7	2.0	2.4	0.8
EU	6.2	22.3	70.2	4.3	9.8	7.7

*Note: * The % of women receiving benefits less the % of men receiving old-age pensions.*

Source: Eurostat, Labour Force Survey, ad hoc module, 2012

Annex 2 IADL limitations among the inactive who are not retired

Table A.3 Proportion of people reporting one or more IADL limitations, 2013 (%) – breakdown of the 'other' category

	Permanently sick or disabled		Homemaker		Other	
	Male	Female	Male	Female	Male	Female
Austria	62.5	25.0	-	16.2	-	0.0
Germany	49.2	44.4	-	9.5	12.5	0.0
Sweden	43.5	38.9	-	0.0	-	-
Netherlands	33.7	52.9	-	11.6	0.0	0.0
Spain	32.7	43.1	-	14.9	-	12.0
Italy	45.8	56.7	-	8.7	-	25.0
France	33.3	56.0	-	12.4	-	20.0
Denmark	33.3	36.0	-	14.3	-	-
Switzerland	42.3	38.1	-	3.2	-	-
Belgium	41.4	47.2	-	11.6	-	0.0
Czech Rep.	38.4	35.1	-	0.0	-	-
Luxembourg	25.8	30.6	-	12.1	-	-
Slovenia	25.0	33.3	-	21.4	0.0	-
Estonia	34.0	42.3	-	5.9	-	9.1

Source: SHARE Wave 5 release 1.0.0
Note: Results for cells with frequencies lower than 15 observations are not reported and marked with "-".

Annex 3 Country case studies

Austria

Present situation and trends

- Despite the crisis, the employment rate of those aged 55-64 has increased over recent years from 39% in 2008 to 41% in 2010 and 45% in 2014, which is in line with the overall trend in the EU as a whole, though the rate remains less than the EU average of 52%.
- A recent empirical study (Mairhuber et al. 2015) suggests that pension reforms in the early 2000s have delayed retirement, but transitional provisions and newly created early-retirement schemes are slowing down the increase in those doing so. A significant proportion of those retiring (over 25%) are unemployed or on sick leave before drawing the first pension.
- High employment costs of older workers have been identified as a major obstacle to retaining older people in work (see for example Christl et al. 2015).

Major reforms to the pension system

Early retirement has been restricted since 2000. Early-retirement pensions due to reduced ability to work (2000) or unemployment (2004) were abolished and the eligibility for early-retirement pensions was gradually tightened by raising the age at which this was possible and reducing benefits. From 2003-2004, the period of insurance included in the pension calculation was gradually extended. At the same time, however, new regulations were introduced again allowing older workers to leave the labour market before reaching statutory retirement age (65 for men, 60 for women) if they had paid contributions for a sufficient number of years (40 for women, 45 for men) without any reduction in the pension amounts. In 2011, the amounts required for the back-purchase of contributions for periods of education were increased substantially (BMASK 2012).

It was only in 2013-2014 that substantial steps were taken to encourage people to remain working longer. The earliest possible age for an early-retirement pension was increased from 55 to 62 and a reduction in the pension of 4.2% a year was introduced. In 2014, the bonus for postponing the take-up of pension was increased from 4.2% to 5.1% a year (BMASK 2012, 96; BMASK 2014, 114).

The reform of the invalidity pension system from 2014 on is arguably an example of good practice. It introduced the principle of 'rehabilitation before pension', abolished the temporary invalidity pensions for those born in 1964 and after, and introduced a rehabilitation benefit (for those invalided for at least 6 months during rehabilitation) as well as a retraining benefit. The focus is on reintegration into the labour market, with the provision of retraining for more suitable employment if necessary (BMASK 2014, 13/55; BMASK 2012, 96).

Labour market policies

Wage subsidies, penalties and work benefits related to the elderly

The long-established part-time allowance is aimed at maintaining the employment of older people by enabling them to reduce their working time. Entitlement conditions were revised in 2011 and 2013 to boost the numbers taking up the scheme (BMASK 2012, 55).

Since 2009, an employment incentive has been in place to encourage those aged 50 and over who are unemployed for more than 6 months to accept a job with lower pay. A benefit of EUR 150 for part-time jobs and EUR 300 for full-time ones is payable to those earning between EUR 650 and EUR 1,700 a month (BMASK 2010, 29). In 2014,

integration allowances, a form of wage supplement for employers, and measures to extend the 'secondary' labour market (social integration enterprises and transit work places in social companies), were introduced with the same objective of increasing the employment of this age group (BMASK 2014, 8/55).

In 2013, a scheme was introduced charging employers EUR 110 when terminating someone's employment, the funds generated going towards activation measures for the unemployed, with half going to those of 50 and over (BMASK 2012, 56). In addition, a bonus/malus scheme is planned to be introduced in 2016-2017, under which companies will receive a recruitment bonus for taking on those aged 50 and over and be liable for a penalty if a target employment rate for this group is not met.

Measures to maintain and improve the employability of older workers

Maintaining the employability of older workers has become an important policy priority in recent years with a particular focus on the further development and integration of preventive and health-promoting elements in labour market programmes. In 2010, the 'Road to Health' system was introduced jointly by the PES and the public pension scheme to determine employability through the mutual recognition of certificates, the speeding-up of treatment, and support for people to remain in the labour market (BMASK 2010, 33).

In addition, the 'Fit2work programme' was launched in 2011 to provide counselling to the unemployed and workers on long-term sick leave, as well as advice for the employers of those facing a long absence due to sickness. The aim was to prevent invalidity and unemployment because of health reasons, to reintegrate workers into employment after long-term sick leave and to preserve their employability (BMASK 2014, 8). However, the evidence is that the take-up rate for both employees and companies is below the level expected.

A National Life-long Learning Strategy (LLL:2020) was also initiated in 2011 aimed at helping people to maintain basic skills, increasing the access of older people to education and training and promoting working environments conducive to learning (Hofmarcher et al, 2013). The goal is to establish a country-wide education and training service for older people in their local communities.

Italy

Present situation and trends

- Employment rates of older workers (55-64) have risen over recent years.
- In 2014, 46% of those in the 55-64 age group were in employment compared with just over 32% in 2006. Nevertheless, the employment rate for this age group remains below the EU28 average (52%).
- Between 2006 and 2012 the conditions for (early) retirement were generally tightened. At the same time the duration of unemployment benefits for those aged 50 and over was lengthened and the benefit level increased.

Key government reforms to the pension system

The present Italian pension system is based on notional accounts balancing expenditure on benefits against revenue from contributions, though it applies in full only to labour market entrants from 1996 onwards (OECD 2011, 255).

Under the early-retirement scheme ('seniority pension') in place before 2008, the benefits payable were related to retirement age – the lower the age, the lower the pension. So long as contributions had been paid for 35 years, an early-retirement pension was payable at age 57. People could retire and receive a full pension at any age after they had paid contributions for 39 years. In 2008, this was increased to 40 years.

(OECD 2007, 143f; OECD 2011, 255). At the same time, the minimum age for early retirement was raised by steps from 57 to 61 in 2013, again so long as contributions had been paid for 35 years. However, it remained possible to retire at any age if contributions had been paid for 40 years.

Women have the right to continue working until the normal pension age for men. Retirement is not compulsory at this age but employers have the right to dismiss employees who reach it (OECD 2011, 256f).

The reform measures introduced in 2012 provided for greater flexibility in the qualifying conditions for retirement, along with incentives aimed at prolonging working life as well as penalties for retiring early (OECD 2012, 3). A more rapid transition to a defined-contributions system was introduced, pension entitlement from 2011 onwards being calculated for all workers on the basis of the contributions paid throughout their working life (as opposed to the average salary received in the last few years).

The normal pensionable age under the new system is set to increase gradually for women from 62 for those employed in the private sector (and 63 for the self-employed) to 66 by 2018 to match that of men.

The reform also introduced a flexible window of retirement between 62 and 70 and a new early-retirement scheme with tight access conditions to replace the 'seniority pension'. For those fully enrolled in the defined-benefit scheme before the reform, retirement without penalty is possible from age 62 if contributions have been paid for at least 42 years and one month for men, and 41 years and one month for women, though the intention is to lengthen these requirements in line with life expectancy. For every year of early retirement, pension entitlements are reduced by 1%, or by 2% if the age of retirement is two years below 62 (OECD 2013, 33/282ff).

However, since 2012, collective agreements in companies employing more than 15 people have been entitled to pay benefits (of the same amount as the public pension at the time of retirement) to workers who are close to retirement age, in order to encourage early retirement (LABREF).

Since 2009, it has been possible to combine employment and the receipt of an old-age pension for those who a) have paid contributions for 40 years or more; and b) are at least 60 years old in the case of women and 65 in the case of men (OECD 2011, 256f). (It was previously possible after the age of 63, but the tax rate on earnings was 50% on income above the minimum pension (OECD 2007, 143).)

Labour market policies

Wage subsidies and benefits for older workers

From 2009 to 2011 employers taking on older workers with a contributions record of at least 35 years and who were in receipt of mobility allowance (unemployment insurance benefit) were entitled to reduce the social contribution payable until their retirement. In 2012, the measure was specifically directed at the unemployed aged over 50 who were willing to work for lower pay (20% less than in their previous job). In addition, workers who had lost their job (especially older workers) and who received mobility allowance could be hired through an 'apprenticeship' contract to provide retraining. Under the scheme, employers receive half of the mobility allowance for 24 months for each older worker taken on (OECD 2012, 3).

In 2012, a new system of incentives was introduced with the aim of increasing the employment of older workers in disadvantaged parts of the country by providing wage and social contribution breaks (LABREF).

In 2012, too, employers hiring workers aged over 50 who had been unemployed for 12 months through a temporary employment agency became entitled to a reduction of 50% in their social contributions for one year (LABREF).

Changes in the unemployment insurance scheme to postpone pension take-up

Between 2001 and 2007, the duration of payment of ordinary unemployment benefits was raised from 6 months for those over 50 years to 10 months in 2005 and then later to 12 months. At the same time, the benefit level was raised from 30% of the reference wage to 40% and then to 50% for the first 6 months in 2005 (LABREF).

In 2012, a new unemployment benefit scheme ('ASpI') was introduced aimed at unifying the standard unemployment benefit and the specific benefit following collective dismissal by 2017. 'Mini-ASpI' was also introduced to provide benefits for those with shorter contribution records, so extending unemployment benefits to temporary workers (OECD 2015, 53). The benefit was set at 75% of the average gross earnings received over the previous three months for the first 6 months, subject to a maximum (EUR 1,180 as of 2013) above which the percentage is reduced. After 6 months the benefit is reduced to 60% for a further 6 months in the case of those over 50 years (instead of only two months for those who are younger) (OECD 2015, 66).

Employment protection legislation

Employment protection regulations for workers on standard contracts of employment have historically been very strict, resulting in older workers in particular tending to be reluctant to move to other jobs and adversely affecting their employability (OECD 2012, 4). In 2012, reforms were introduced with the aim of relaxing the regulations, and further reforms to relax the rigid dismissal protection rules are being planned (OECD 2015, 53).

Measures to maintain and improve the employability of older workers

Although older workers represent a priority target group, relatively few activities aimed at upgrading their education or skill levels were undertaken before 2005 and those aged 45 and over tended to be excluded from continuing training (Bonassi et al. 2012, 8f). In 2005, the Action Programme for Re-employment of Disadvantaged Workers Programme (P.A.R.I.) was launched with increased funding for the PES and with older workers among the target groups. In 2010, a joint Multi-Sectoral Fund for Continuing Training (*Fondimpresa*) was established with specific support for programmes in which workers over 45 make up at least 20% of participants.

New training guidelines aimed at revitalising vocational training through an agreement between government, regions and social partners, were introduced in 2010, potentially benefiting older workers. These were reinforced by the establishment of a timetable of work on accreditation and certification of skills and training standards in order to make them effective, with the parties involved committing themselves to a shared programme of work on issues concerning older workers (OECD 2012, 4ff).

Netherlands

Present situation and trends

- Long-term increase in employment partly as a result of higher participation of older age groups, especially women. Employment of women aged 55-64 has more than doubled over the past 10 years.
- The crisis has not affected the upward trend in the employment rate of older workers aged 55-64, which rose from 55% in 2009 to 59% in 2012 and 61% in 2014, though the unemployment rate more than doubled from 3% in 2009 to 7% in 2014.
- The average retirement age has risen from 61 in 2001 to 64 in 2014.
- Changes in attitudes have taken place, with more people willing to work longer. The share of those who are neither willing nor able to stay in employment till the statutory retirement age has fallen from 53% to 39% since 2005.

Key government reforms to the pension system

Reforms of the old age pension introduced substantial changes to all three pillars of the system. The abolition of the early-retirement scheme (VUT) began in the civil service in 1997 and by 2006 had been implemented in all sectors.

The raising of the statutory retirement age from 65 to 67 by 2021 is being implemented in gradual steps and will be adjusted in line with the development of life expectancy from 2021 onwards. Changes have also been made to the second pension pillar (occupational schemes) increasing the minimum age at which these pensions can be paid to 62 and reducing the amount payable if taken before the legal retirement age (OECD, 2014).

Up until 2012, the third-pillar system also provided workers with individual savings accounts. The programme allowed workers tax-free savings of up to 12% of their earnings to finance periods of unpaid leave, such as sabbaticals, care leave, education and training courses or gradual retirement, while retaining them in employment. Participation in the scheme was voluntary for employees.

An extensive reform of the disability benefit system was carried out several years ago, a package of integrated measures being introduced to change the focus from a passive to an active policy as well as giving greater responsibility to employers. The measures included stricter assessment of disabilities and a strong emphasis on combining benefits with incentives to work.

Labour market policies

Incentives for employers for hiring older workers

A number of measures exist to encourage older workers to remain in employment and employers to retain them or take them on:

- a mobility bonus is in place to stimulate the demand for older workers by reducing employers' contributions when they hire someone aged 50 or older;
- sickness benefit, which is normally paid by the employer, is paid by the PES if a worker aged over 55 who has previously been unemployed for at least a year falls ill in the first 5 years of the new job (Bekker and Wilthagen, 2014);

- for the first three months of taking on an older workers, employers need not pay a salary to those previously unemployed or disabled since they continue to receive benefit.

Significant positive effects have been found for the first and third measures (by Van der Werff et al., 2012) but a recent evaluation of the second scheme shows at best a minor effect on the hiring behaviour of employers (Bekker and Wilthagen, 2014).

There is also a long tradition in the country of using age-management policies to increase age-awareness among employers and to promote a positive image of older workers among them. From the early 2000s onwards, the Dutch Ministry of Social Affairs and Labour initiated a series of programmes that provided financial support and information for companies to develop age-management policies e.g. the 'Age-conscious HRM' programme or the so-called 'Argument Map for Employers' which was distributed in the 2007-2009 period under the Dutch national Talent 45+ Programme (ESFAge, 2015).

Changes in the unemployment insurance scheme

Changes in the unemployment benefit scheme were introduced in 2006, reducing the maximum duration of benefits from 5 years to 38 months (OECD, 2012). The aim was to restrict access to long-term unemployment benefit and its use as an effective early-retirement pension.

The special rules exempting the unemployed over the age of 57.5 from reporting job-search efforts to the PES have been abolished since then and it is only those over 64 who are exempt from actively searching for a job (OECD 2014).

A temporary part-time unemployment benefit scheme was also introduced in 2008 as a response to the crisis, aimed at helping employers to retain employees, mostly older workers. It was abolished in 2011 (Skugor and Bekker, 2012).

Employment protection legislation

An age-neutral approach to collective dismissals was introduced in 2005 (Skugor and Bekker, 2012). The legislation on dismissals was amended introducing the 'proportionality principle' (*afspiegelingsbeginsel*) to be applied to all lay-offs. This divides employees into age groups within which the number selected for dismissal needs to be determined, the seniority principle (last-in-first-out) being applied within each group. Accordingly, redundancies are spread across all ages.

Measures to maintain and improve the employability of older workers

Recognition and certification of prior learning

The experience certificate (*Ervaringscertificaat*) is aimed at increasing employability by recognising the skills and competences workers have gained through formal and informal experience (Duvekot, 2010).

Sustainable employability at the company level

Sustainable employability has been used as an important approach at the organisation or company level. Several practical tools have been developed in recent years to provide customised support for employers as well as workers to invest in employability. The Interactive digital portal, initiated by three partner organisations (*Stichting Kroon op het Werk, TNO and WerkVanNu*) in 2010, is the main means for monitoring the National Employability Plan (NPDI, 2015). It also provides a platform for companies to exchange ideas and expertise.

The Work Ability Index (WAI), introduced in 2008 by the Dutch Ministry of Social Affairs and Employment, is another means of supporting sustainable employability at the workplace. Its main aim is to encourage employers to tailor work to employees as they grow older (Ilmarinen, 2006). Originally developed in Finland by the Finish Institute of Occupational Health, it considers several factors that enable people to function well in a

job including their physical and mental health, their skills and motivations, and the working environment.

Poland

Present situation and trends

- Gradual increase in the employment rate of older workers (aged 55-64) from 28% in 2006 to 39% in 2012 and 42.5% in 2014. Despite this growth, the employment rate is still among the lowest in the EU especially among older women.
- The employment rate of women in the 55-64 age group increased from 19% in 2006 to 29% in 2012 and to 33% in 2014, but it remains much lower than that of men (53% in 2014) as well as that in most other EU countries.
- Unemployment among the 55-64 age group, which stood at 6.8% in 2007, peaked at 7.7% in 2013 before falling back to its pre-crisis level in 2014.
- The average retirement age rose from 61.1 in 2002 to 62.3 in 2012 for men, and from 59 to 60.2 for women.

Key government reforms to the pension system

In 2009, the early-retirement system was abolished and replaced by a new scheme, called 'bridging pensions' (OECD, 2015). The aim was to tighten access to early retirement, allowing the take-up of a 'bridging' pension 5 years before the statutory retirement age only if specific conditions are met (mainly concerning workers in hazardous occupations).

From 2013, the statutory retirement age is being gradually increased to 67 for men by 2020 and for women by 2040 (by one additional month every 4 months).

Since 2013, a partial pension has been available for women when they reach 62 and for men when they reach 65, with a minimum social contribution record of 40 years and 35 years respectively (Strategic Social Report, 2015). The benefit amounts to 50% of the full amount of pension entitlement.

After reaching the standard retirement age, it is possible to combine the receipt of old-age pension with earnings from work without any reduction. Below the standard retirement age, the pension is reduced if earnings are between 70% and 130% of the average wage and is withdrawn completely if they are above this (Zukowski, 2014).

Labour market policies

Incentives for employers for hiring older workers

A wage subsidy for employers hiring someone unemployed and over 50 was implemented in 2014. This lasts for 12 months or for 24 months if the person is over 60. The amount is a maximum of 50% of the minimum wage and employers have to continue employing the person for at least half the period for which they receive the subsidy.

An exemption from paying social contributions for employees of pre-retirement age (i.e. within 5 years of the statutory retirement age) was implemented in 2009 as part of the 'Solidarity across generations: Measures to people aged 50+ Programme'.

Solidarity across generations: Measures to people aged 50+ Programme

The 'Solidarity across Generations' programme, which began in 2008, is so far the only one to address the problems of maintaining people over 50 in employment in a systematic way (Sienkiewitz, 2014). The aim is to promote productive ageing by

increasing the number of years people spend in employment. It comprises a combination of active labour market measures (e.g. hiring subsidies, job placement, career counselling and training) and also health prevention and early intervention measures. It is planned to run until the end of 2020.

Measures to maintain and improve the employability of older workers

Since 2009, employers who establish a training fund for their employees receive reimbursement of up to 50% of training costs and up to a maximum per person of the average wage. In the case of employees older than 45, the reimbursement is increased to 80% (LABREF database).

In 2013, a National Training Fund (NTF) was established to co-finance training costs. In the first two years, the fund provides specific support for the up-skilling of workers of 45 years and older.