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The gender pension gap: differences between mothers and women without children

Study for the FEMM committee

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POLICY DEPARTMENT C: CITIZENS' RIGHTS AND CONSTITUTIONAL AFFAIRS

WOMEN'S RIGHTS & GENDER EQUALITY

The gender pension gap: differences between mothers and women without children

STUDY

Abstract

This study was commissioned by the European Parliament's Policy Department for Citizens' Rights and Constitutional Affairs at the request of the FEMM Committee. Demographic trends and the financial and economic crisis have obliged European countries to accelerate the revision of their pension systems with the aim of ensuring their sustainability. However, serious question on the effects these reforms on pension adequacy have been raised.

This report summarises recent changes in pension reforms and their effects on gender pension gaps, with a focus on women with children. The assessment of recent pension reforms in a gender perspective shows that changes in pension design may increase the gender gap in pensions and translate into higher poverty risks for older women compared to men, unless specific measures are implemented in Member States to support women's position in the labour market and to address periods out of the labour market due to caring duties.

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LIST OF ABBREVIATIONS

CJEU	Court of Justice of the European Union
CSR	Country-Specific Recommendation
DB	Defined Benefit schemes
DC	Defined contribution schemes
EC	European Commission
ECJ	European Court of Justice
EEO	Equal Employment Opportunity Commission
EGGSI	Group of experts in gender equality, social inclusion, health care and long-term care
EHRC	Equality and Human Rights Commission
EP	Elderly people
ES	European Semester
EU – LFS	European Labour Force Survey
EU	European Union
EU-SILC	European Union Statistics on Income and Living Conditions
FEMM	Committee on Women's Rights and Gender Equality
GGP	Gender Gap in Pensions
ILO	International Labour Organisation
MIPOP	Minimum Income Provisions for Older People
MS	Member States
NDC	Notional defined contribution schemes
NGO	Non-governmental organisation
NRP	National Reform Programme
OECD	Organisation for Economic Co-operation and Development
PAYG	Pay-As-You-Go

SHARE Survey of Health, Ageing And Retirement in Europe

SME Small and Medium Sized Enterprise

SPC Social Protection Committee

TFEU Treaty on the Functioning of the European Union

List of abbreviations of EU countries

BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
HR	Croatia
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
UK	United Kingdom

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EXECUTIVE SUMMARY

Pension systems are aimed at protecting older people from poverty and allowing them an adequate income in old age. The intensification of population ageing in Europe is increasingly challenging the future financial sustainability of pension schemes. The 2008 crisis has added new pressures on European countries to revise their pension systems drastically.

This report summarises recent changes in pension reforms and their effects on gender pension gaps, with a focus on women with children. The study is based on a review of recent comparative studies on the gender pension gap, and a desk analysis of the comparative data and indicators available at the European level.

Following the Introduction, Chapter 2 presents the main features of current pension systems and recent reform trends from a gender perspective. Chapter 3 analyses the evolution of the gender gap in pensions, as well its drivers and effects on gender differences in poverty risks and women's economic independence in old age. Chapter 4 elaborates on the measures taken at the EU and national levels to reduce gender gaps in pensions. It focuses on the EU Directives on the application of gender equality principles in pension systems, and how the gender pension gap has been considered in the European Semester coordination process. This chapter also provides examples of measures taken by Member States to reduce the potential negative effects of motherhood on pensions. The concluding Chapter 5 provides a number of policy recommendations.

Three annexes complete the report. Annexes A and B provide additional tables and figures relating to Chapters 2 and 3. Annex C includes two tables relating to Chapter 4: (a) the list of country-specific recommendations (CSRs) on pension policy addressed to MSs in the framework of the European Semester, and (b) a summary table of the measures taken by MSs for old-age pensions.

Main evidence

The sustainability of pension systems has been the main goal of recent pension reforms. However, the gravity of the financial and economic crisis has highlighted the risks associated with pension reforms in terms of pension adequacy and increased poverty risks in old age.

Since 2012 nearly all the EU28 MSs have made some adjustments to their pension systems. In most of the Member States the focus was on increasing the financial sustainability of their pension systems, while 14 countries also addressed the issue of pension adequacy. To **improve the financial sustainability of public pension schemes,** EU Member States have:

- increased and equalised the retirement age of women and men;
- changed the levels or reduced the indexation of pension benefits;
- reinforced the link between contributions paid and benefits received, and the duration of contributory periods necessary to access pensions;
- increased the role of private occupational and individual pension schemes;
- shortened the transition period envisaged in previous reforms.

These provisions are going to reduce pensions' replacement rates, and increase the complexity in pension systems and the associated individual risks. They are also likely to **aggravate existing gender imbalances in old age**.

The **gender gap in pensions** measures how much men's average monthly and annual pensions are higher than women's. Its evolution over time is useful to measure how pension reforms are affecting women and men in a different way in old age. As described in Chapter

3, the gender gap in pensions for the population aged 65-74 **is estimated** by EC services **at 40.2% on average for the EU28 in 2014.** This figure is much higher than the average EU gender pay gap (16.1% in 2014) and the average gender gap in annual earnings (23.0% in 2010). It shows **wide country variation**, ranging from 3.7% in Estonia to 48.8% in Cyprus. In 14 MSs, gender gaps in pensions exceed 30%.

The gender gap in pensions reflects both lower pension coverage among women compared to men and lower pension benefits for women, and translates into higher poverty risks for older women compared to men. On average, for the EU as a whole, the percentage of elderly women at risk of poverty or social exclusion was 20.2% in 2014, compared to 14.6% of men. Women with care responsibilities are particularly exposed to low pension benefits and high poverty risks in old age, especially when they cannot count on survivor pensions or the income of a partner.

The large gender pension gap is the result of both **gender imbalances in the labour market and pension design features penalising women more than men**.

It is however very difficult to disentangle the effect of each factor on the gender gap in pensions. This is because pensions are the result of a cumulative process emerging from the interaction of lifelong gender imbalances and the operation of pension systems and social policies. These may correct or magnify gender imbalances in the labour market. In addition, pension reforms are changing pension entitlements in different ways for different cohorts of pensioners, as well as influencing the labour market choices of younger generations.

A number of features of current pension schemes are however likely to add to gender inequalities in the labour market.

In particular, the **closer link of pension benefits to lifetime contributions** and the shift towards **multipillar systems** are likely to amplify gender gaps in employment and in earnings, producing even larger gender disparities in pension income than in the past, unless measures are taken to support women's continuous employment and earnings. Women are less likely than men to have enough contributory periods for good pensions, and to access private occupational and individual schemes.

Furthermore, the **strengthening of actuarial principles** for both pension benefits and contributions exposes elderly women to higher poverty risks, given their longer life expectancy compared to men. Even measures which at first sight may seem favourable for elderly women living alone, such as **survivors' pensions**, increase the incentive for women to be married and stay inactive. On the other hand, these schemes have an important function in reducing the poverty risks in old age for widows.

In new pension systems **benefits are more closely related to developments in the labour and financial markets and to economic growth**. This implies that the adequacy of pension systems is jeopardised (especially for the younger cohorts and women) when:

- the labour market is unable to guarantee lifelong continuous employment;
- the financial markets are unable to deliver the expected returns on investments in occupational or individual pension funds;
- public spending is limited by lower growth prospects and fiscal consolidation measures.

In order to address these shortcomings and improve the **pension system's adequacy and fairness**, some countries have recently adopted measures to:

- broaden pension coverage;
- raise the benefit levels of minimum pension schemes;

- improve the regulation of private funded pension schemes to promote wider risk sharing as well as consumer information and protection, while seeking to ensure the quality of financial products.

In assessing the gender effects of pension reforms it is also necessary to consider their **effects on different cohorts of female pensioners**. Today's pensioners are mainly affected by past employment patterns and social norms affecting the division of care tasks within households, as well as past pension reforms. Those relatively close to retirement are affected by the transitional arrangements of current pension reforms aimed at smoothing the transitions towards new pension systems. New pension systems are instead likely to fully affect the labour market and family choices of new generations of new generations of women inducing a higher labour market attachment, compared with previous generations. However, their employment patterns, and the consequent pension entitlements, also depend on the demand side, and the evolution of economic and labour market conditions. For example the increasing importance of occupational and individual private pension schemes may penalise future cohorts, if gender segregation in the labour market persists and women will have reduced access to those positions and sectors providing generous occupational schemes. In the same way, the emphasis on working longer will penalise women with care responsibility or lack of employment opportunities.

In order to reduce future gender gaps in pensions, it is not sufficient to **increase the attention to the gender and the adequacy effects of pension reforms.** It is also necessary to improve the policy efforts that support **equal opportunities** in the labour market and the **equal division of caring roles** in the family before people reach pensionable age.

At the EU level, the **Lisbon Strategy** encouraged EU Member States in reforming their pension policies, in order to reduce poverty among old people, and enhance the financial sustainability and modernisation of the pension systems.

In 2001 the Laeken Summit launched a process of policy coordination on adequate and sustainable pensions, modernisation of pension systems and improvement in the access to occupational pension schemes. A year later, the European Council agreed a new target for the Lisbon process to raise the retirement age by 5 years on average, by 2010. This included the encouraging of a voluntary increase in the true retirement age, enabling a gradual transition to retirement and promoting active ageing.

Furthermore, EU institutions have drafted several **directives** that underline the importance of approaching the pension systems granting equal opportunities for all. More recently, several recommendations have been given to the Member States to reform pension systems in the framework of the **European Semester** policy coordination mechanism. Pension reforms account for 9.6% of the total CSRs issued in the 2012-2015 period. However, as shown in Chapter 4, no recommendations have been provided to ensure that gender is mainstreamed within these systems apart from the equalisation of the retirement age between women and men. Also, **little attention has been given to the need to combine these reforms with measures supporting women's employment** and the balance of work and family lives for both women and men. Moreover no specific indicator is actually in place for monitoring pension policy reforms and the gender pension gap.

In recent years, the **European Parliament** has increasingly called the European Commission and Member States to urgently include in 'the country-specific recommendations in the framework of the European Semester [...] targets to reduce the gender pay and pension

gaps, discrimination and the risk of poverty among elderly women, and to effectively implement equal treatment principles[1].

Several Member States have also introduced measures that (directly or indirectly) may support a greater gender quality in pension entitlements. These include universal residence-based minimum pension (especially in the Nordic countries), and the extension of pension care credits.

Policy implications

Recent pension reform trends are likely to encourage a higher labour participation and longer permanence in the labour market, but also to increase the poverty risk in old age. This could particularly affect low-wage and precarious workers, and individuals with interrupted employment careers such as women with caring roles. In addition, the rise of the retirement age poses the serious question of guaranteeing an active role for older workers. In this perspective, the success of pension reforms lies in the **introduction of additional measures** supporting women and other groups distant from the labour market to spend more years in employment. There should also be incentives to develop and maintain lifelong learning and an active and healthy ageing.

To improve women's pension entitlements and coverage the following aspects are particularly important:

- **Greater emphasis and resources need to be focused on pension adequacy and the reduction of gender pension gaps**. In considering the sustainability and adequacy goals of pension reforms, the balance of transfers between different generations and the changing nature of labour markets and of family structures should be examined. This should focus on improving the capacity to adapt to these changes without reducing pension coverage and fairness in pension entitlements between women and men and between generations. In this respect, **universal, residence-based or flat rate minimum pensions** indexed to wages appear to be **particularly favourable to gender equality,** as the full basic pension is paid irrespective of the previous employment status and family conditions.
- **Access to occupational and individual supplementary pensions** by women has to be supported. It is also necessary to make these schemes more women-friendly, with provisions supporting the introduction of unisex life tariffs and care credits, as well as derived pension benefits. The growing individual responsibility on saving decisions entailing different risks also requires a greater attention to **improving women's (and men's) financial literacy** in order to make informed decisions on increasingly complex issues. The growing role of occupational and individual voluntary pensions schemes also calls for more stringent pension fund regulation in terms of risk sharing and protection against insolvency. This is intended to prevent the risks associated with financial crises from being disproportionally borne by individuals.
- **Pension systems should move towards a life course perspective** for both men and women envisaging pension credits for periods out of the labour market either due to caring, training or unemployment. In this perspective, **pension credits for care periods** appear to be particularly favourable to gender equality, provided they are extended and also made available to men, and for the care of other dependents besides children. Furthermore, care credits should allow (part-time) employment

[1] European Parliament Resolution on the application of Directive 2006/54/EC for the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (October 2015).

during care periods, and also be available in private funded pension schemes and extended to the self-employed, inactive and unemployed. **Flexible retirement provisions** and the possibility to combine pension and part-time work should also be considered, as well measures to improve the employability of older (50+) women and men.

- **Individual rather than family-related pension entitlements** should be adopted, in order to reduce work disincentives and gender stereotypes, while allowing for accrued pension rights to be divided in the event of break-up. The focus on the individual underlines the women's role in the labour market rather than in the family and implies taking maternity into consideration, also outside marriage. The empirical evidence shows that the living conditions of elderly women (particularly those living alone) are better where social benefits and public transfers are based on the situation of an individual, rather than the family, and where care services are available. For example, some of the provisions adopted by most of the Nordic countries appear to play a supportive role in the living conditions of elderly women:
    - consideration of care years for pension entitlements both in public and compulsory private schemes, whatever the family status;
    - residence-based minimum pensions, which also allow for the removal of derived pension rights with their many shortcomings;
    - the extensive provision of assistance and other services that play a major role in enhancing the income of single households, especially for lone mothers and elderly women.
- More generally, it is necessary to **assess the (potential) gender impact of proposed changes in pension provisions.** The effects of reforms on the capacity of pension systems to reduce gender gaps and alleviate poverty in old age should be taken into account. Proposals for pension reforms should clearly indicate how they are likely to affect future costs and the relative entitlements for women and men with different family conditions and for different cohorts. When simulating the effects of pension reforms it is necessary to consider men and women with different wages and employment patterns, rather than focusing solely on average earners with full employment careers. This requires the development of more **disaggregated statistics and research** and the inclusion of **the gender gap in pensions (GGP) indicator** among the European Semester headline indicators to orientate policy developments. This would allow the production of specific CSR to Member States on the gender pension gap, keeping track of its progress.

Pension policies alone cannot, however, reduce gender differences in pension income, as they largely reflect gender gaps in the labour market. **Labour and active ageing policies** are also needed to guarantee gender equality in future pensions. In particular, given the growing reliance on longer careers to ensure adequate pensions, it will be crucial to implement measures enabling women to spend more years of their lives in employment and to minimise the motherhood penalty. The increasing privatisation of pension rights has highlighted the need to consider gender differences in the division of unpaid care work and to integrate pension reforms with appropriate work-life balance policies. These must promote continuous participation in the labour market for women and reduce gender gaps in pay and occupational segregation. These measures not only are likely to improve the living conditions of elderly women living alone, but also the conditions of other vulnerable groups.

European institutions could play an increasing role in reducing gender disparities in pensions, by supporting a stronger integration of a gender equality perspective in pension

and welfare policies. Greater attention could be paid to pension adequacy and active ageing strategies both at the EU and national level. In particular EU institutions could support:

- the inclusion of the gender pension gap (GGP) indicator among the scoreboard indicators adopted for the European Semester surveillance process;
- the development of gender disaggregated statistics and research to strengthen the monitoring and evaluation of the gender effects of pension reforms;
- more accurate simulations of the potential effects of proposed reforms for women and men of different generations and family conditions.

This should stimulate debate both at the EU and national level on pension reforms and their gender effects.

1 AIMS AND CONTENTS OF THE STUDY

At the request of the FEMM Committee, this study presents recent changes in pension reforms and their effects on gender pension gaps. It focuses on women with children and measures to mitigate these effects. In detail, the study is meant to:

- analyse the main trends and strategies in pension policy regimes in a gender perspective;
- analyse the history of the indicator on gender gaps in pensions and address the reasons for pension inequalities between women and men, with focus on the effect of motherhood and of gender pension gap on the risk of poverty in old age;
- elaborate on the measures taken at the EU and national level to reduce gender gaps in pensions, with focus on EU gender equality directives and the role of the European Semester;
- provide policy recommendations.

The study is based on a literature review and a desk analysis of the data and indicators available at the European level, and is structured into four further chapters. Chapter 2 focuses on the main features of current pension systems and recent reform trends from a gender perspective. Chapter 3 presents a measure for the gender gap in a pensions indicator, as well as its drivers and effects on gender differences in poverty risks and women's economic independence in old age.

Chapter 4 elaborates on the measures taken at the EU and national levels to reduce gender gaps in pensions. It gives special attention to the EU Directives on the application of gender equality principles in pension systems and how the gender pension gap has been considered in the European Semester coordination process. This chapter also provides examples of measures taken by Member States to reduce the potential negative effects of motherhood on pensions.

Finally, the concluding Chapter 5 summarises the main evidence resulting from the study and provides a number of policy recommendations.

Three annexes complete the report. Annexes A and B provide additional tables and figures relating to Chapters 2 and 3. Annex C includes two tables relating to Chapter 4: (a) the list of country-specific recommendations (CSRs) on pension policy addressed to MSs under the European Semester, and (b) a summary table of the measures taken by MSs for old-age pensions.

2 ASSESSING PENSION SCHEMES AND RECENT REFORMS IN A GENDER PERSPECTIVE

2.1 Main features of current pension systems and recent reform trends

Pension systems are aimed at protecting older people from poverty and allowing them a sufficient income in old age. The acceleration of population ageing in Europe is increasingly challenging the future financial sustainability of pension schemes. The 2008 crisis has added new pressures on European countries to revise their pension systems drastically.

A series of reforms on pension schemes started in the 1990s in most European countries and have gained impetus since the crisis. Pension reforms have been implemented in most EU countries, mainly with the aim of reducing their excessive burden on public finances and ensuring a long-term sustainability of pension expenditure for the current and future generations.

For this reason, even if pension systems are still diversified across Member States, they are evolving along a common trend of structural reforms. In particular, current pension systems are converging towards a multipillar structure, supplementing the shrinking public pillar with employment-related occupational schemes and individual schemes operating on a funded basis and managed by private financial institutions. In addition, several Member States have strengthened the contributory principle in the calculation of pension benefits and raised the retirement age[2].

The current structure of pension systems in EU countries is converging towards **a three pillar system**, although large variations exist across Member States on the relative importance of each pillar (as shown in Table A1 in Annex A):

1. **First pillar: public statutory pension schemes**. This pillar still represents the backbone of retirement income support in European countries, and in most countries represents the main source of income for current pensioners. Even if shrinking, this will continue to make up the bulk of pension income in most EU countries for many years. It includes minimum old-age pensions for older people with low incomes and few or no pension rights, early retirement, disability and survivors' pensions. It is usually based on a pay-as-you-go (PAYG)[3] scheme, even though in some central and eastern European Member States, statutory mandatory funded individual plans, (pillar Ib pensions), have been introduced alongside pillar I[4].
2. **Second pillar: occupational pension schemes**[5]. This pillar contains employment-related pension schemes, comprising both earnings-related (public or private) PAYG

[2] See CEPS, *Pension schemes study*, European Parliament, Directorate General for Internal Policies Policy Department A: Economic and Scientific Policy, August 2014, http://www.europarl.europa.eu/RegData/etudes/STUD/2014/536281/IPOL_STU(2014)536281_EN.pdf

[3] With pay-as-you-go (PAYG) current workers' contributions are used to fund the pension payments of retired people.

[4] European Parliamentary Research Service, *European Union pension systems: Adequate and sustainable?,* European Parliament Briefing Note, November 2015 , http://www.europarl.europa.eu/RegData/etudes/BRIE/2015/571327/EPRS_BRI(2015)571327_EN.pdf

[5] European Parliamentary Research Service, *Prospects for occupational pensions in the European Union European Parliament,* briefing note, September 2015, http://www.europarl.europa.eu/EPRS/EPRS-Briefing-568328-Prospects-for-occupational-pensions-EU-FINAL.pdf

as well as funded pension defined contribution (DC) and defined benefit (DB) schemes[6].

3. **Third pillar: individual saving plans** based on voluntary funded schemes, meant to increase the individual's retirement income and allowing flexibility with respect to pension savings.

The current features of pension systems are the result of a **reform process started in the 1990s** due to demographic pressures and accelerated by the economic crisis in 2008.

Population ageing has been the main driver of pension reforms as it poses a serious risk to the fiscal sustainability of pensions, especially for pay-as-you-go schemes. Between 1995 and 2015, the proportion of older people (65+) has increased by 4 p.p. over the total EU28 population, while the proportion of the younger (0-14) and the working age (15-64) population has declined respectively by 3 p.p. and 1 p.p. These demographic trends are projected to persist in the coming decades[7], although their intensity will be different across EU countries[8].

A further driver for reforms has been the **economic and financial crisis**, which has put pressure on public expenditure and forced Member States to accelerate pension reforms. While the overall process has been characterised by a common pattern of reduction in the generosity of pension schemes, over the past 20 years two waves of reforms can be identified[9].

The **pre-crisis reforms** occurring from the mid 1990s until the mid 2000s focused on redefining contribution designs and pre-funding schemes in order to improve the financial sustainability of pensions systems. In this period all EU countries, to a greater or lesser extent, have[10]:

- adopted a multipillar pension system, with a greater role of funded pension schemes;
- strengthened the contributory principle and the link between contributions and benefits, so the pension benefit increasingly depends on the years of employment, the level of lifetime earnings and the age of retirement;
- raised the number of contributory years necessary for a full pension and restricted access to early retirement;
- raised retirement age, equilising it between men and women, and limited early retirement provisions;

[6] In defined contribution (DC) schemes benefits are based on the amount contributed to the pension plan by an employer or by the employee and any return on that investment. In defined benefit (DB) schemes, benefits are instead based on a formula linked to income before retirement or on average earnings over the accrual period and length of working life.

[7] See Figures A2 in Annex A.

[8] European Commission, *The 2015 ageing report: Economic and budgetary projections for the 28 EU Member States (2013–2060)*, Directorate-General for Economic and Financial Affairs, March 2015.

http://europa.eu/epc/pdf/ageing_report_2015_en.pdf

[9] European Commission (DG EMPL) and Social Protection Committee (SPC), *The 2015 pension adequacy report: Current and future income adequacy in old age in the EU*, Vol. 1, Publications Office of the European Union, Luxembourg. October 2015, http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7828&visible=0&

[10] European Commission, Green Paper, *Towards adequate, sustainable and safe European pension systems*, SEC(2010) 830 final, COM(2010)365 final, Brussels, 2010.

http://ec.europa.eu/social/BlobServlet?docId=5551&langId=en

- adopted indexation and adjustment mechanisms to lower the growth rate of pension benefits[11] as well as extended the calculation period for pensionable earnings to the entire employment career, rather than the latest years.

The crisis, having severely reduced growth prospects, brought additional pressures to bear on the European pension systems. Fiscal constraints forced Member States to accelerate the shift towards the contributive system with more stringent eligibility conditions, the change in indexation rules, the phasing out of special provisions, the increase and equalisation in retirement age, and the reduction in public support for private pensions.

The crisis also highlighted some of the risks in the previous pension reforms which made benefits more closely related to the trends in the business cycle and thus greatly reduced pension benefits during the crisis. In addition, the negative employment effects of the crisis and the austerity measures adopted by EU countries underlined the high pension risks faced by the increasing number of unemployed, precarious and part-time workers with the new pension systems (Samek Lodovici et al., 2011).

Post-crisis reforms have been marked by the need to rapidly reduce public expenditure and stabilise the financial sustainability of pensions. All the EU28 MSs have made some adjustments to their pension system since the start of the crisis, accelerating the transition to the new systems envisaged by previous reforms and introducing some correctives. As shown in Table 2.1, pension reforms enacted in recent years:

- applied cuts in pension benefits for current pensioners in some countries[12];
- further raised retirement ages and in some cases (e.g. CY, DK, EL, IT, NL, PT and SK) linked statutory pensionable age to life expectancy;
- phased out special provisions for civil servants;
- brought in more stringent eligibility conditions.

The crisis brought about a sharp decline in the value of assets of pre-funded schemes and caused difficulties in maintaining the public's financial incentives to funded pension pillars. This led many central and eastern Member States to reverse the expansion of pre-funding, with the scaling back of mandatory private pension schemes. Other Member States with significant pre-funded schemes (e.g. Denmark, Germany, Ireland, the Netherlands, Sweden and the United Kingdom) improved the regulation of private funded pension schemes. This promoted wider risk sharing as well as subscribers' information and protection, while seeking to ensure the quality of financial products.

Pension reforms following the crisis (2012 onwards) are also increasingly focusing on 'adequacy gaps' in pension income, especially for the currently active population and the younger cohorts. Some countries have recently adopted measures to extend pension coverage to atypical workers (as in Germany and Italy), and raise the benefit levels of minimum pension schemes.

[11] Automatic balancing mechanisms were introduced to index pension benefits to changes in life expectancy, consumer price index or wage growth.

[12] These cuts were introduced either as direct cuts in pension benefits or temporary freezes and/or permanent reductions in the indexation of benefits; or through extra or higher taxes for pensioners. In some cases (as in LV and LT) these cuts were judged illegal by Constitutional Courts and had to be repaid (European Commission and SPC, 2015, pp. 174-175).

Table 2.1: Post-crisis pension reforms in the EU28 (2008 – 2014)

Trends in Pensions Reforms	MS
Reduction of pension benefits	IE, EL, HR, CY, LV, LT, HU, PT, RO, SE
Change of indexation rules	BG, CZ, EL, ES, FR, HR, IT, CY, LV, HU, AT, PL, PT, RO, SI, SK
Phasing out of special provisions	BE, IE, EL, ES, CY, HU, PL, RO
Change in rules for early retirement	BE, BG, DK, DE, EL, ED, HR, IT, CY, LV, LT, HU, AT, PT, SI, SK, FL
More stringent eligibility conditions	BE, DK, IE, EL, ES, FR, IT, CY, LV, RO, SK, UK
Extended assessment periods	BE, EL, ES, FR, IT, MT, NL, AT, SI
Increased retirement ages between women and men	CZ, DK, DE, EE, IE, EL, ES, FR, HR, IT, CY, LV,LT, HU, MT, NL, PL, PT, RO, SI, SK, UK
Equalised retirement ages between women and men	CZ, EE,EL, HR, IT, LT,MT, AT, PL, SI, SK, UK
Automatic indexation to life expectancy	DK, EL, IT, CY, NL,PT,SK,
Increases in the length of the contribution period	CZ, IE, EL,ES,FR,IT,CY,LV,MT,PL,SI

Source: European Commission and SPC (2015), Tables 4.1 and 4.2 p. 174, 182

Notwithstanding these revisions, according to recent projections for the 2013-2060 period[13], pension reforms will reduce the adequacy of pension income. These show a decline in the public pension benefit ratio[14] by 9.0% at the aggregate EU28 level (from 44.0% in 2013 to 34.9% in 2060). An aggregate decline (-6.5%) is expected in the public pensions (gross average) replacement rate, which measures the average first pension as a share of the economy-wide average wage at retirement. Only two countries (Bulgaria and Czech Republic) project an increasing public replacement rate.

The sustainability of pension systems is instead improving. The *2015 Ageing report* shows that, notwithstanding the acceleration in ageing trends, average pension expenditure as percentage of GDP for the EU28 increased only slightly from 2007 (10.2%) to 2013 (11.3%). Moreover, EU pension expenditure is forecast to fall slightly by 2060. A reduction of public pension spending (as a share of GDP over the long term) is projected in most Member States (HR, DK, LV, FR, IT, EL, SE, EE, ES, PT, PL, BG, RO, CY and HU), mostly as a result of implemented pension reforms[15].

Finally, these reform trends are also likely to have significant effects, especially for women and young people. On the one hand they are going to benefit from a higher labour participation and longer permanence in the labour market. On the other hand, these reforms have strengthened the reliance on longer careers to ensure sufficient retirement income. They have increased the poverty risk in old age for low-wage workers, precarious workers and individuals with interrupted employment careers such as women with caring roles. In addition, the rise of the retirement age poses the serious question of guaranteeing an active

[13] European Commission, *Adequacy and sustainability of pensions*, European Semester thematic fiche, 2015, pp.11-12 http://ec.europa.eu/europe2020/pdf/themes/2015/adequacy_sustainability_pensions_20151126.pdf

[14] The ratio between the average public pension benefit and the economy-wide average wage.

[15] European Commission, *The 2015 ageing report: Economic and budgetary projections for the 28 EU Member States (2013–2060),* Directorate-General for Economic and Financial Affairs, March 2015.

http://europa.eu/epc/pdf/ageing_report_2015_en.pdf

role of the older workers 'trapped' in longer employment careers. In this perspective, the success of pension reforms lies in introducing complementary measures focused on encouraging these groups to spend more years in the labour market. This can be achieved by broadening pension coverage for atypical and self-employed workers, improving care pension credits and encouraging private pension savings. There should also be incentives to develop and maintain lifelong learning, and an active and healthy ageing.

2.2 Expected gender effects of pension reforms

In Europe, pension systems are usually considered as gender neutral, as most of the rules and provisions are the same for men and women. However, pension outcomes are marked by persistent gender differences, as gender inequalities in the labour market cumulate over a lifetime. The often gender-blind policies carried out so far have had a considerable negative impact, starting from the retirement models produced in the 1950s and 1960s, when the male breadwinner household was predominant (Zanier and Crespi, 2015). The literature on gender differences in pension systems[16] stresses women's disadvantaged position in the labour market, due to the so-called motherhood penalty (Bettio et al., 2013). Gendered social norms affecting the division of roles within households result in women being more exposed to poverty in old age as they tend to have lower pensions than men.

As described in Chapter 3, on average in the EU28 in 2014, women's pensions were 40.2% lower than men's (considering the age class 65–74). The at-risk-of-poverty or social exclusion rates (AROPE) in old age[17] reached 20.2% for women compared to 14.6% for men, due to women's lower pension entitlements and expected longer lives relative to men.

The changes that occurred in the last 20 years have greatly affected the gender gap in pensions to different degrees across generations. The implemented measures can have both negative and positive effects on women's (and men's) conditions and labour market decisions.

Future women pensioners are likely to be penalised as a result of the current gender segregation in the labour market and the uneven division of care roles in households. They will also be affected by:

- the closer link between contributions and benefits;
- the increasing role of occupational and private pension schemes;
- the application of actuarial principles for benefits and contributions – the indexation of benefits on sustainability indices.

However, recent reforms may also act as an incentive for higher female labour market participation decisions and the increasing attention to measures reducing the gender gap in pensions (e.g. care credits, minimum pensions and derived pensions' rights). Measures supporting women's employment with work-life balance measures may reduce gender gaps in the risk of poverty in old age.

[16] Evan and Ginn, 2003; Boeri and Brugiavini, 2008; Samek Lodovici et al., 2011; Bettio et al., 2013; Tinios et al., 2015; EIGE, 2015.

[17] The at-risk-of-poverty or social exclusion rate (AROPE) of older people (65 years or over). **Source**: EU-SILC [ilc_peps01]. See Section 3.3.

2.2.1 The closer link between contributions and benefits

The first element of the recent pension reforms with relevant gender effects is the closer link between lifetime contributions and benefits, resulting from the move from defined benefits (DB) to defined contribution schemes (DC)[18].

Even if there are differences among the Member States, the design of most pension formulas especially rewards workers with more than 40 continuous years of employment. On the one side, this change encourages the pursuit of a longer career. In the long run it could stimulate a greater participation by women in the regular labour market, and reduce incentives to retire early.

On the other side, as already mentioned, women are likely to be more heavily penalised than men as they tend to have interrupted careers. They also earn less than men on average and work more often in part-time jobs and atypical contracts, given their caring roles and the persistence of gender discrimination in the labour market. All these conditions have an impact on lifetime earnings, which are more and more influencing the contributing period and the level of pension benefits.

As a consequence, women may increasingly rely on basic, means-tested or minimum pensions as the only source of income. This brings the risk of a resurgence of old-age poverty due to their lower pension incomes (OECD, 2011)[19].

2.2.2 The move towards multipillar systems and the role of financial institutions

The second element influencing the gender equality in pension benefits is the shirking role of public first-pillar pensions. This is usually based on solidarity principles and pay-as-you-go financing, and the increasing emphasis on second-pillar pensions based on occupational schemes and pre-funded. This switch is frequently (though not always) combined with a change from DB (defined benefit) schemes to DC (defined contribution) schemes (Bettio et al., 2013). These changes increase the individual responsibility for the amount of pension received and result in an overall reduction in the redistributive and solidarity role of the system.

The move to multipillar systems could stimulate greater participation by women in the regular labour market and reduce incentives to retire early. However, it could also increase gender gaps in pension income due to the reduced role of public pensions and gender differences in access to occupational and individual schemes. The design of occupational and individual schemes, especially when non-statutory, is also likely to penalise women as these schemes are usually based on sex-differentiated tariffs and lack provisions for non-contributory periods and survivors[20].

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[18] With the Defined Benefit (DB) formulae a given level of benefits is defined and usually low earners have higher replacement rates than high earners. With the Defined Contribution (DC) formulae only contributions are defined and benefits vary according to the returns on the funds invested, with the value of the pension depending not only on the contributions made, but also on developments in the financial markets. Department of Social and Family Affairs, Green Paper on Pensions, Chapter 9, Ireland, 2007, http://www.welfare.ie/en/Pages/Green-Paper-on-Pensions---By-Chapter.aspx

[19] OECD, *Pensions at a glance 2011: Retirement-income systems in OECD and G20 countries, 2011*. http://dx.doi.org/10.1787/pension_glance-2011-en

[20] Only in a few countries (FR, NL and ES) occupational schemes take into consideration periods of unemployment or care leave, while survivors' pensions are available in occupation schemes for civil servants in Austria, Belgium, and in Cyprus, France, Greece, Italy, Liechtenstein, the Netherlands and Portugal.

For these reasons, the shirking role of the public pension schemes is expected to affect women more than men[21]. According to many studies, the shift to multipillar schemes has slowed down the narrowing of gender gaps in pensions[22].

The financial and economic crisis has highlighted some of the risks, for sustainability and adequacy, associated with the interdependence of the various pension pillars. The occupational and individual pension pillars may increase risks to future pensioners' incomes depending on the design of these schemes for returns on investments and the pay-out phase. In particular the growing number of defined contribution (DC) schemes is increasingly shifting the responsibility and risk for financial decisions to subscribers who often do not have the knowledge and capacity to make complex financial decisions. This may result in high social costs if the private financial institutions proposing individual and occupational schemes are not regulated or do not operate within an accreditation system with proper codes of conduct. The need for a greater regulation and financial education of individuals, employers, trade unions and consumer groups, which have to decide among the various financial instruments offered, is becoming a major issue[23].

The shift towards multipillar systems will also increase pension income inequalities between those who are on occupational schemes and/or can afford individual retirement savings and those who do not qualify for these schemes and rely only upon an old-age minimum or a contributory public minimum pension. Due to gender segregation in the labour market, women are less like to be covered by occupational and individual private schemes than men. Women tend to be employed in occupations and sectors that do not provide occupational pension schemes and/or their earnings are too low to save for individual schemes.

Furthermore, individual and occupational pension schemes are usually based on actuarial fairness, penalising women with sex-differentiated tariffs. This is because actuarially fair insurance mechanisms[24] require that since women show a higher life expectancy than men, they have either to pay higher contribution rates and/or for longer periods, or receive lower pension benefits than men.

Sex-differentiated tariffs are more common in private schemes. In almost all countries unisex tariffs are instead usually adopted in redistributive statutory public schemes in order to reduce gender differences in pension income, even if this may be considered a positive discrimination in favour of women. The *European Court of Justice Test-Achats rule*[25] has

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[21] Comparing pension reforms in the Netherlands and Denmark and their gender impact, another study concludes that a shift from public schemes to occupational pensions in those countries has had a negative impact on women's pensions (Frericks, P., Maier, R., and de Graaf, W., 2006, Shifting the pension mix: consequences for Dutch and Danish women. *Social Policy and Administration*, Vol. 40.).

[22] Samek Lodovici, M., Crepaldi, C. and Corsi, M., *The socio-economic impact of pension systems on the respective situations of women and men and the effects of recent trends in pension reforms*. EGGSI Synthesis Report, 2011. http://ec.europa.eu/justice/gender-equality/files/equal_economic_independence/pensions_report_en.pdf:
Horstmann, S. and Hüllsman, J., The socio-economic impact of pension systems on women, Gesellschaft fuer Versicherungswissenschaft und – Gestaltung (GVG), European Commission, Directorate-General for Employment, Social Affairs, and Equal Opportunities, 2009. http://ec.europa.eu/social/BlobServlet?docId=5001&langId=en

[23] See the extensive OECD study: *Improving financial literacy analysis of issues and policies*, OECD Publishing, 2006.

[24] Actuarially fair insurance systems, like those envisaged in contribution-based systems, compare an individual's lifetime contributions with the individual's expected life-time benefits.

[25] European Court of Justice Case C-236/09, Association Belge des Consommateurs Test-Achants ASBL and Others v. Conseil des ministres, Judgment of 1 March 2011. An overview of developments of the Test-Achats rule on the insurance sector is provided by Insurance Europe: *Insurance Europe's response to the European Commission's questionnaire on the implementation of Directive 2004/113/EC*

established that sex cannot be used for permanent differentiation in insurance premiums including pensions. However, there is still debate about the effects of unisex tariffs, as they redistribute from men to women and create distortions in the insurance market (Horstmann and Hüllsman, 2009)[26].

Minimum income provisions or public minimum pension schemes not related to former employment may in part overcome these problems. These schemes are particularly relevant in a gender perspective and for the adequacy of pension systems in supporting old-age income for low earners and those with limited employment histories[27]. However, means-tested schemes may have the counter effect of reducing incentives to work and voluntary pension savings. Flexible retirement age, as present in Finland and Sweden, and part-time pensions also appear useful in reducing gender differences in income in old age.

2.2.3 The increase in retirement age

A third significant factor directly affecting women is the sharp increase in retirement age for women implemented by most reforms in recent years. This has been achieved mainly by equalising women's statutory retirement age to that of men, the gradual abolition of most options for early retirement, and, in some countries, the linking of retirement age with life expectancy. In some countries this has been accompanied by providing for a greater flexibility in the choice of retirement age.

As shown in Table A2 in Annex A, almost all the Member States have equalised the statutory retirement age of women to that of men. In 2015, in 11 MSs (BG, CZ, EE, HR, IT, LT, AT, PL, RO, SK, UK) women still had lower statutory retirement ages with respect to men. Following the recent reforms, by 2020, gender differences in retirement age will remain only in six of them (AT, BG, HR, CZ, PL and RO). After 2020, only two EU Member States (BG and RO) are expected to still have gender differences in the retirement age.

The equalisation of retirement ages is however a controversial issue with potential ambiguous effects on the gender gap in pensions. Equalising men's and women's statutory retirement age may have a long-term positive effect on the adequacy of women's pension entitlements in old age, as it will provide contributions for a longer period, and stimulate women's labour supply. However, a higher retirement age may increase the care burden on women, as it does not consider that older women attend to unpaid family work and care for their relatives and grandchildren. Until recent years women's unpaid family work has been compensated by earlier access to the pension system; with the increase in retirement age specific policies will have to be adopted or strengthened to reduce this burden on women.

2.2.4 The change in the calculation period for pension benefits and the indexation mechanisms

Pension reforms have also extended the minimum contributory years necessary to be eligible for pension entitlements and have linked pension benefits to lifetime earnings. Both these changes are likely to affect the gender gap in pensions, further penalising women for their

http://www.insuranceeurope.eu/uploads/Modules/Publications/response-to-ec-questionnaire-on-gender-directive.pdf

[26] For discussion see Mabbett, D., *A rights revolution in Europe? Regulatory and judicial approaches to nondiscrimination in insurance*, Birkbeck, University of London, 2011. http://www.bbk.ac.uk/politics/our-staff/academic/deborah-mabbett/RightsrevolutioninEp.pdf. See also the European Parliament study on *The use of gender in insurance pricing*, available at: http://www.europarl.europa.eu/committees/en/studiesdownload.html?languageDocument=EN&file=60175

[27] The residence-based minimum pensions of the Nordic countries appear more favourable to women, as they are not based on the individual employment history (Samek Lodovici et al. 2015).

interrupted employment careers and shorter insurance periods. However, the latter may proportionally penalise men more as, on average, they enjoy more advancements in their careers than women.

In order to increase the financial sustainability of pensions, several countries have implemented some forms of automatic indexation mechanism to link pension benefits to life expectancy and economic changes (indexation to prices). In general, the indexation of pension benefits to sustainability indices can negatively impact retired women more than men, because of their longer life expectancy. Life expectancy automatic adjustment mechanisms for pension eligibility have been introduced in Denmark, France, Czech Republic, Netherlands (from 2023), and Italy (Samek Lodovici, et al., 2015). A number of Member States (FI, IT, PT, PL and SE) have brought in mechanisms that lower benefits in line with the growth in average life expectancy (European Commission and SPC, 2015).

2.2.5 Care credits and derived pension benefits

Some pension schemes provide for care credits and derived pension benefits which are likely to reduce the gender gap in pensions and, in general, support women's wellbeing in old age.

Care credits (for children and/or other dependents) are measures aimed to balance the impact of interrupted careers on women's pension benefits as they provide compensation for income loss due to care periods or are credited as pensionable years. Childcare credits often exist in the statutory pension schemes and are provided in almost all Member States (not Denmark, Slovenia and the Netherlands). Other forms of care credits (for the elderly, the disabled or severely ill family members), are less widespread and have been established only in some countries[28] (European Commission and SPC, 2015). Care credits reduce gender differences in pension income, as it is women that usually provide care services. They temper the effect of the closer link between contributions and benefits, with a positive impact especially for lone mothers and for women caring for disabled or dependent relatives. However, the impact on women's participation in the labour market is ambiguous: if not extended to men, they may promote the unequal division of care duties within households.

Derived pension rights are instead measures meant to protect women against the risk of poverty in old age. They include survivor benefits (paid to the surviving spouse/law partner and dependent children), spousal benefits and divorcees' benefits (acquired though marriage and granted after divorce). The most important provision is the survivor benefit, which exists in almost all the European countries and mainly benefits women, given their higher life expectancy compared to men. The effect on the gender gap in pensions is however controversial. They prevent women without enough contributions from falling into poverty in old age[29], but also encourage married women to stay at home or work in the informal economy. Moreover, they redistribute resources from single households (men and women) to single earner married couples, with negative effects for unmarried women.

2.2.6 Specific pension provisions for atypical workers

People working in the informal sectors and atypical workers are particularly penalised by the recent reforms of pension schemes towards defined contribution schemes, as they usually have interrupted employment careers and low wages with insufficient contributory periods.

[28] BG, HR, CZ, EL, IE, IT, LT, LU, MT, SK, ES, UK. See Table B10 in Annex B.

[29] The *Pension adequacy report* shows that survivors' pensions play an important role in providing pension income for the surviving spouse. Thus when comparing to the benefits based on a survivors' own income from a full career with low wage, survivors' pensions are higher in 22 Member States, and in 4 of them by more than 50 per cent (p.19).

Women are particularly affected, as they are more likely to be employed in atypical jobs relative to men.

Labour market and pension reforms are progressively being applied to overcome this issue. For example in Germany and Italy pension contributions have recently been extended to atypical workers (for low paid jobs in Germany and occasional jobs in Italy) (Samek Lodovici et.al, 2015).

2.3 Concluding remarks

Recent pension reforms have improved the sustainability of public pension schemes by strengthening the link between contributions paid and benefits received. They have also increased the role of private occupational and individual pension schemes, at the cost of reduced replacement rates, growing individual risks and complexity in pension systems.

Table 2.2 summarises the main expected gender effects of recent pension reforms with a focus on women with children. Most of the changes, like the shift towards contribution-based occupational schemes and the adoption of the actuarial principles, are likely to increase the gender gap in pensions, penalising women more than men. Unless specific measures supporting the employment of women with children and other dependents are implemented, the shift towards contribution-based occupational schemes could increase old-age poverty among women. Low earners and those with interrupted careers (mainly women and atypical workers) will be much more reliant on basic, means-tested or minimum pensions, with the risk of a resurgence of old-age poverty due to their lower pension incomes. Another general effect of pension reforms is the increased individual responsibility for complex saving decisions. This exposes the elderly to increasing individual risks, as shown by the effects of the financial crisis on private pension schemes.

The negative effects for women may be only partially offset with care pension credits and universal minimum pensions as well as derived pension rights in marriage or divorce and for survivors.

Table 2.2: Pension reforms and their specific impact on women and men

Measure	Gender impact	Impact on women with children
Raising of retirement age Flexible retirement age	Positive impact on pension benefits; active ageing policies in the labour market and care services are however needed. Flexible retirement age allows women to retire later, increasing their pension income.	Positive impact. Need measures supporting the employment of mothers: e.g. care services and care pension credits.
Shift from best years towards career average as calculation base for earnings-related benefits	Reduces gender differences in pensions related to the more dynamic careers of men, but penalises women with irregular and interrupted career patterns. Enhances intra-generational fairness. Negative impact of career breaks due to childcare.	Negative impact if career breaks due to childcare. Need measures supporting continuous employment.
Indexation of benefits	Positive impact on pension incomes of older women (and men) with wage indexation, negative impact (especially for women 75+) with indexation to sustainability indices.	Positive effect for women with wage indexation.
Increase of minimum pension	Positive impact on old-age income, especially for women, over-represented in these schemes; residence-based minimum pensions are more favourable to gender equality as the full basic pension does not depend on the previous employment status and family conditions. Possible negative impact on work incentives, especially when means-tested. Individualisation of rights encourages labour market participation.	Positive effect of residence-based minimum pensions.
Contributions related pension	Positive impact on work incentives; negative impact on pension income levels for low earners, those with interrupted careers and atypical jobs.	Negative impact of interrupted careers and part timers.
Actuarial principle	Greater influence of employment gender gaps on pensions. Greater gender gap in pensions if conversion rates are not unisex. Positive impact on work incentives.	Negative impact if low pay, irregular or interrupted careers.
Survivors' pensions and derived rights	Negative impact on work incentives. Positive impact on older women's incomes. Redistribute from single households to one earners' married couples.	Positive effect if extended to divorced or separated mothers.
Extension of multipillar pension schemes	Increase in gender differences in pension income, as occupational and individual pension schemes are more closely related to gender differences in the labour market (gender segregation and gender pay gaps) and in access to these schemes. Positive impact on work incentives. Need for greater regulation to ensure that the financial crisis is not borne solely by individuals and to increase financial literacy	Negative impact on lone mothers who have to increase savings.

	as pensions systems become more complex and uncertain in the returns.	
Care credits	Positive impact on incomes and on work incentives; should be extended to men and to the care of dependents other than children.	Positive impact.

Source: Samek Lodovici et al., 2015.

In assessing the gender effects of pension reforms it is also necessary to consider the effects on different generations of female pensioners:

- the immediate effects on women (and men) who have already retired;
- the short-term effects on those who are near retirement age;
- the long-term effects on younger cohorts who will enter retirement in the future.

Today's pensioners are mainly affected by past employment patterns and social norms on family formation and the division of care tasks within households, as well as past pension reforms and their transitional arrangements. Those relatively close to retirement are instead affected by the transitional arrangements of current pension reforms (Bettio et al., 2015).

With time, there will be an increasing number of individuals whose pensions will be defined by the new systems. The new pension systems are likely to affect the labour market and family choices of new generations of women inducing a higher labour market attachment, compared with previous generations. However, the risks associated with the new systems will also depend on the demand side, and economic and labour market conditions. For example the switch in emphasis from public (first pillar) pensions to occupational (second pillar) pensions and the privatisation of risks may penalise future generations. If gender segregation in the labour market persists, women will not be able to enter those positions and sectors providing generous occupational schemes. In the same way, the emphasis on working longer will penalise women not able to respond to the incentives because of lack of choice, either due to caring responsibilities or lack of employment opportunities.

In order to reduce future gender gaps in pensions, increasing attention needs to be paid to the gender and the adequacy effects of pension reforms. It is also necessary to improve the policy efforts that support equal opportunity in the labour market and the equal division of caring roles in the family before people reach pensionable age.

3 MEASURING THE GENDER GAP IN PENSIONS AND IN THE RISK OF POVERTY

3.1 The gender pension gap

As mentioned in the previous chapter, gender differences in pension entitlements result from the disadvantaged position of women in the labour market as well as from the design of pension systems. Care credits, minimum and guaranteed pensions, and derived pensions' rights in part compensate women for their unpaid domestic and care work.

3.1.1 Definition and size of the gender pension gap

An indicator of the gender gap in pensions (GGP) was firstly proposed and measured by Bettio et al. in the 2013 EC report *The gender gap in pensions in the EU*. The proposed indicator grasps the gender imbalances affecting pensions and measures the percentage by which women's average pension is lower than men's:

$$(1 - \frac{\text{women's average pension income}}{\text{men's average pension income}}) \times 100$$

The main data source for this indicator is the EU-SILC which collects timely and comparable cross-sectional and longitudinal multidimensional microdata on income, poverty, social exclusion and living conditions. Another useful source of data is the SHARE database, a cross-national panel database of microdata on health, socioeconomic status and social and family networks of individuals aged 50 or older[30].

The analysis of gender differences in pensions should also consider an additional indicator: the gender gap in pension coverage measuring the extent to which more men than women have access to the pension system.

Estimates of the pensioners' gender pension gap

The 2015 *Report on equality between women and men in the European Union* (European Commission, 2016) provides the most recent estimates for the gender gap in pensions in Europe. The estimated GGP is computed for the 65-74 age group.

As show in Figure 3.1 (and Table B1 in Annex B), **the average EU28 gender pension gap in 2014 stood at 40.2%.** This means that men in the 65-74 age class on average are entitled to pensions that are greater than those of women in the same age class by 40.2%. The pension gap is much higher than the average EU gender pay gap (16.1% in 2014) and the gender gap in annual earnings (23.0% in 2010)[31]. This underlies the cumulative effects of women's difficult position in the labour market on pension income in old age and the role of pension design features.

The EU average, being calculated on a population weighted basis, is heavily affected by the gap of the larger countries, and conceals wide differences across countries. As shown in Figure 3.1, the gender pension gap is higher than the EU28 average in Cyprus (48.8%), Germany (46.5%), the Netherlands (46.0%) and Austria (41.9%). Overall, 14 Member

[30] See Annex B for a brief description.

[31] Gender gaps in earnings are based on the *Structure of earnings survey*, 2010 data. In comparing the gender gap in pensions and in annual earnings it is important to bear in mind that today's gap in earnings and today's gap in pensions refer to different cohorts of people (e.g. people born in different time periods) which may present different behaviours according to the evolution of social values/norms (European Commission and SPC, 2015).

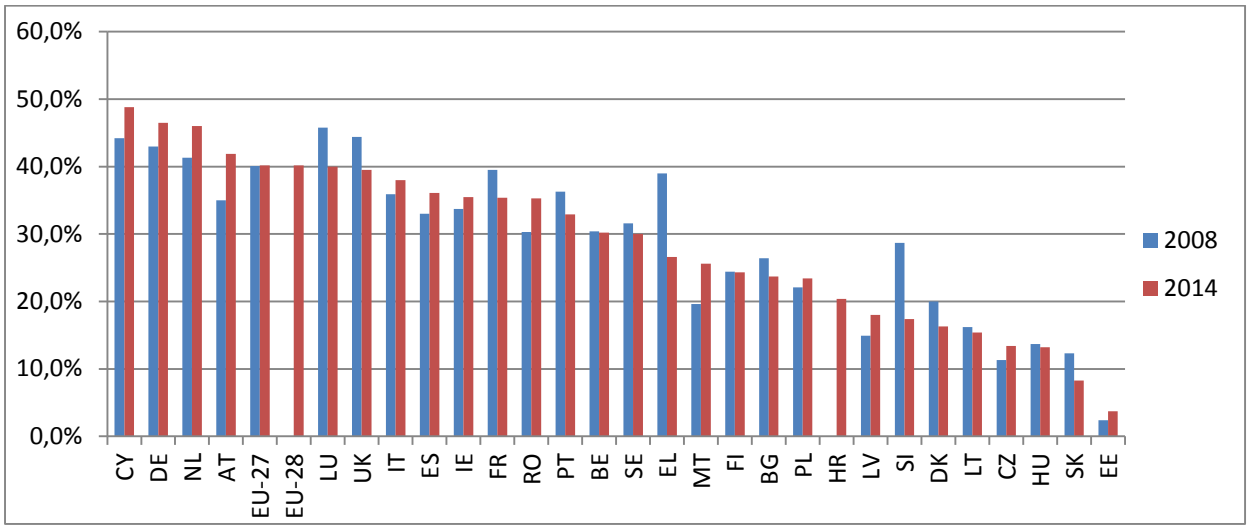
States[32] have a gender pension gap of at least 30%. The gender pension gap tends to be much lower in many eastern European countries where gender differences in the use of part-time work are less pronounced than in western Europe (see Figure 3.3). The lowest gap is in Estonia (3.7%), Slovakia (8.3%), Hungary (13.2%) and the Czech Republic (13.4%) – all countries with low part-time work, and low pension income for both men and women, even if the gender gap in pay and annual earnings (2010) is high, especially in Estonia.

This evidence underlines the **complexity of the relationship between the gender gap in pensions and pension design, as well as differences across cohorts of pensioners**. In Estonia, for example, the design of the pension system appears to dampen existing labour market inequalities at least for current pensioners. As underlined in Bettio et al. (2013), current pensioners in Estonia have had access to a generous old-age public pension (comprising a flat-rate component reaching about 38% of the average old-age pension) and care credits. These features of the pension system have been downsized in recent years and gender gaps in future pensions are likely to increase in the future if the high gender pay gap persists.

The gender **gap in pensions has remained stable in the EU as a whole since the crisis**, as it was 40.1% in 2008. However, it has widened significantly in Austria (+6.9 p.p. since 2008), Malta (+6 p.p.), Romania (+5 p.p.), the Netherlands (+4.7 p.p.), Cyprus (+4.6), Germany (+3.5), Spain and Latvia (+3.1 p.p.). It significantly declined in Greece (-12.4 p.p.), Slovenia (-11.3 p.p.), Luxembourg (-5.8 p.p.), Ireland (-5.5 p.p. to 2013), UK (-4.9 p.p.), France (-4.1 p.p.), Slovakia (-3.7 p.p.), Denmark (-3.7 p.p.) and Portugal (-3.4).

[32] We consider 2013 for Hungary due to lack of data.

Figure 3.1: Gender gap in pensions (%) of persons aged 65-74, EU28 and Member States, 2008 and 2014



Source: European Commission, *Report on equality between women and men 2015*, Annex 1 - Gender gap in pensions (%) of persons aged 65-74 http://ec.europa.eu/justice/gender-equality/files/annual_reports/160422_annual_report_en.pdf Data Source: Eurostat. EU-SILC. No data for HR in 2008-2010. IE considers 2013 due to lack of data.

The overall pension gap pertaining to the entire population over 65 is usually slightly lower than the central gap presented above. For example in 2012 the EU27 average was 38%, rather than the 40.2% calculated for the 65-79 years[33] because it is more sensitive to survivors' pensions, mainly supporting women, given their longer life expectancy compared to men (European Commission and SPC, 2015)[34].

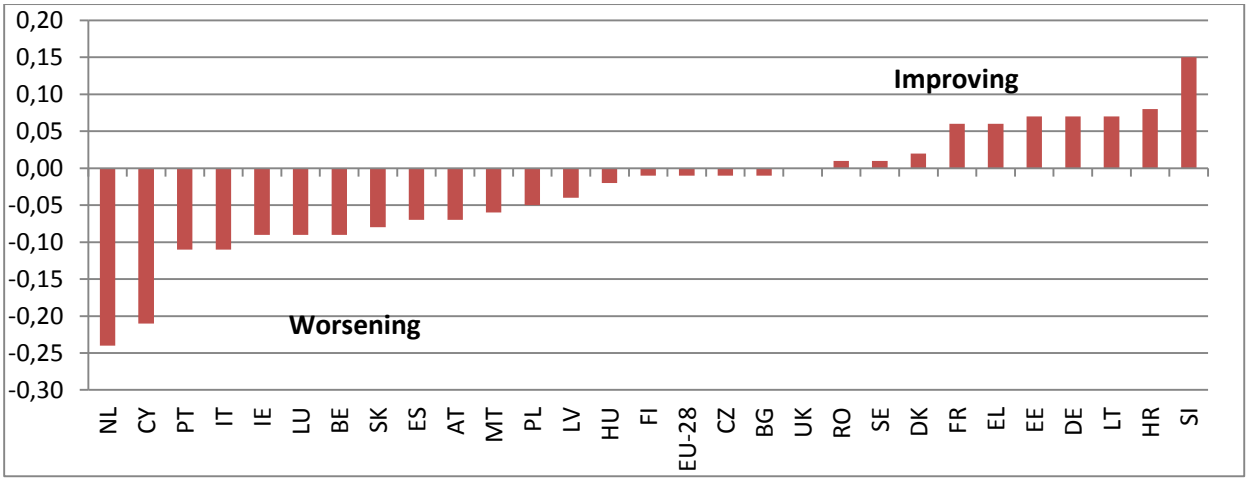
Comparing the GGP of different cohorts of pensioners shows whether the situation of women relative to men is improving (lower GGP among the young cohort of retirees) or deteriorating. EIGE estimates of the GGP for the two age cohorts (EIGE, 2015) presented in Figure 3.2 show that on average (EU28) both the younger (65-69) and older (75+) age groups present very similar pension gender gaps (38% vs 37% in 2012). However, the gap is worse for the younger cohort with respect to the older in 18 countries, with the Netherlands (52% vs 28%, older cohort) and Cyprus (43% vs 22%) presenting the widest difference. In the UK the gender gap in pension is equal among cohorts, while it is worse for the older cohort in the

[33] European Commission, DG EMPL and Social Protection Committee (SPC), *The 2015 Pension Adequacy Report, current and future income adequacy in old age in the EU*, Vol. 1, Publications Office of the European Union, Luxembourg, October 2015, p. 151.
http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7828&visible=0&

[34] These differences arise mainly from large discrepancies registered in a few countries, such as the Netherlands and Italy, which show the largest positive differences (in line with the EU average), while Greece and Slovenia show the largest negative discrepancies. They may be due to the different demographic profiles of EU MSs affecting the share of the excluded older group (over 75), however the extent of excluding older individuals is unlikely to explain all the observed differences in the computed gaps. Other distortions affecting country comparisons and the differences between the gender pension gaps for the two population groups may arise from extreme values and pension schemes relative to derived benefits. In addition, it is possible that, in some countries, non pension benefits are classified as pensions. To avoid the problem of extreme values the median rather than the mean could be used for comparisons. However the median may also be biased. The GGP based on the median pension income is larger than that obtained from the mean, however, the patterns across countries are on average preserved. For this reason the mean is usually considered in European comparative reports. For detailed discussion on these issues see Tinios et al., 2015.

remaining countries (RO, SE, DK, FR, EL, EE, DE, LT, HR and SI) with the largest difference in Slovenia (16% vs 31%)[35].

Figure 3.2: Differences in GGP between those aged 65-69 and those aged 75 and over, EU28 and Member States, 2012



Source: EIGE, 2015 *Gender Gap in pensions in the EU. Research Note for the Latvian Presidency*. Figure 3 p.21. EIGE calculations based on EU-SILC microdata, 2012

Estimates of gender gaps in pension coverage

A key feature explaining gender differences in pensions across countries is the gender gap in coverage, e.g. the gap between the proportion of men and women who are entitled to a pension.

Country differences in gender coverage rates are likely to reflect differences in pension systems' design. This happens whether the pension system has a strong redistributive role through old-age public pensions paid to all citizens over a certain age[36], or it is mainly based on the insurance principle. This is where a minimum number of years of contributions is necessary to be eligible for pension benefits, with married women eventually covered by derived pension rights (European Commission and SPC, 2015).

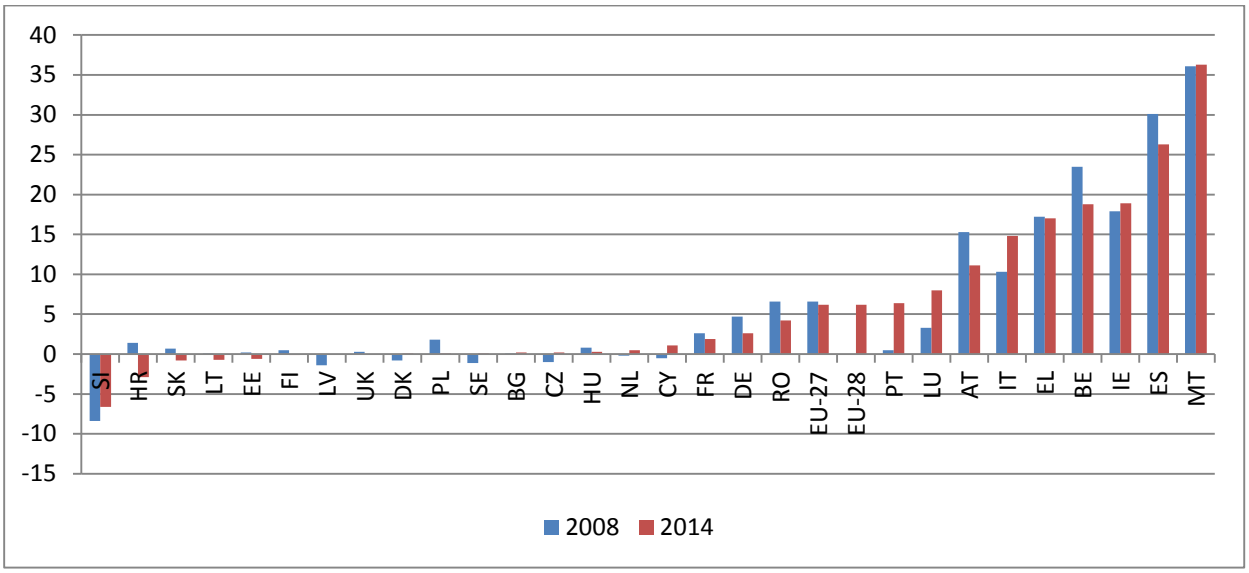
The gender gaps in pension coverage for the age class 65-74 show that in 2014 at the EU28 average men's coverage in pension was 6.2 p.p. higher than that of women (European Commission, 2016). The gender gap in coverage is relatively low in those countries where an old-age pension is paid to all citizens over a certain age independently of their employment history as in Denmark or the Netherlands. The difference in coverage instead exceeded 10 p.p. in six Member States (MT, ES, IE, BE, EL, IT and AT), with the highest gap in Malta (36.3 p.p.), Spain (26.3 p.p.), Ireland (18.9 p.p. for 2013), and Belgium (18.8 p.p.). In some of

[35] In the majority of cases with a larger GGP for the younger cohort with respect to the older one (LU, NL, BE, IT, AT, SK, PL), the difference can be explained by a decrease/no change of pension income for the younger female cohort relative to a no change/increase for the younger male cohort. In 6 countries (FR, HR, SI, DE, EE and LT) out of 7showing progress, the smaller GGP for the younger cohort with respect to the older one was due to an increase in income from pensions for the younger female cohort and decrease/no change for the younger male cohort. See Table B2 in Annex B.

[36] The indicator considered for total old-age pensions [SCPTOTOLDAGE] includes old-age pension, anticipated old-age pension and partial pension.

these countries married women are not entitled to their own pension, while their husband receives a married pension supplement (European Commission and SPC, 2015). Conversely, six countries (SI, HR, SK, LT, EE, FI) show negative gaps, e.g. more men than women with no pension entitlements[37].

Figure 3.3: Gender gap in pension coverage (p.p.) 65-74 years old, EU27 and EU28 and Member States, 2008 and 2014



Source: European Commission, Report on equality between women and men 2015, Annex 1 - Gender gap in pension coverage (percentage points), 65-74 years old Data Source: Eurostat, EU-SILC. Notes: 2013 data for IE

The gender gap in pension coverage shows a slight decline between 2008 and 2014 from 6.6 p.p. to 6.2 p.p. on average at the EU27, resulting from a decline in 13 MSs and an increase in 11 countries. The decline has been particularly strong in countries with a high coverage gap (as shown in Table B3 in annex B), like Belgium (with the gap going from 23.5 p.p. in 2008 to 18.8 p.p. in 2014), in Spain (from 30.1 p.p to 26.3 p.p.) and in Austria (from 15.3 p.p. to 11.1 p.p.), while the increase has been largest in Italy (from 10.3 p.p to 14.8 p.p), Luxembourg (from 3.3 p.p. to 8.0 p.p) and Portugal (from 0.5 p.p to 6.4 p.p).

Gender gaps in pension coverage help explain the difference between the gender gap in pensions among the pensioners and among all the elderly. In countries characterised by high pension gaps but low gaps in coverage (as Luxembourg, Germany, the Netherlands, Cyprus and France), pension gaps are likely to be mainly caused by women receiving low pensions. Conversely, countries characterised by both large gender gaps in coverage and in pension benefits show the largest discrepancies and a much higher gender gap in pensions among the elderly than among pensioners (Tinios et al., 2015).

3.2 Main drivers of the gender pension gap

The high variation of the GGP across EU countries suggests that the phenomenon is more complex that it seems and is affected by many different factors. It is thus important to illustrate how gender gaps relate to gender inequalities existing in the labour market and

[37] These anomalies may derive from a misclassification of what is considered a pension in the EU-SILC database (e.g. disability pensions paid to people over 65). Similar results occur if we consider the 'overall' (65+) gender gap in pension coverage. In 2012 the highest gaps were in Malta (34 p.p.), Spain (27 p.p.), Belgium (27 p.p.) and Ireland (16 p.p.), while just Slovenia and Finland showed negative values (see Bettio et al., 2013).

households, as well as variations in pension systems design (European Commission and SPC, 2015). In the next paragraphs, the main drivers of the gender pension gaps are illustrated, with focus on gender differences in the labour market, the role of family conditions and care responsibilities, and pension design features.

It is however very **difficult to disentangle the effect of each factor on the gender gap in pensions**. This is because pensions are the result of a cumulative process emerging from the interaction of lifelong gender imbalances and the operation of pension systems and social policies. These may correct or magnify gender imbalances in the labour market. In addition, pension reforms are changing pension entitlements in different ways for different cohorts of pensioners, as well as influencing the labour market choices of younger generations[38].

3.2.1 Gender differences in the labour market

In order to analyse how gender differences in the labour market may affect pension entitlements, the following dimensions and indicators[39] are considered:

- gender differences in employment rates and in the duration of the working life;
- gender differences in working hours (average number of weekly hours of work and part-time incidence);
- gender differences in earnings (gender gap in mean income and the gender pay gap).

As indicated in Chapter 2, the shift towards multipillar pension systems with a closer link between lifetime contributions and benefits, means that pension entitlements are strongly related to long employment careers, possibly in full-time well-paid jobs. Gender gaps in pensions are thus going to mirror gender gaps in employment, in working years, in part-time jobs and in pay.

In 2015, in the EU28 only about two thirds (64.3%) of women of working age (20-64) were **employed**, a greater proportion than in the previous decade, but still well below men's employment rate (75.9%). In addition, even if women are increasing their level of education, they are still paid less than men per hour of work and work fewer years than men leading to a wider career earnings gap[40]. Figure B1 in Annex B shows gender differences in employment rates by country. The employment rate of men is higher than that of women in all countries, with Malta (27.8 p.p. difference), Italy (20 p.p.), Greece (18 p.p.), Romania (17.5 p.p.) and Czech Republic (16.6 p.p.) showing the highest gender gaps.

The extent to which people work until the pensionable age before they retire is reflected in the **employment rate of older workers** between 55 and 64 years old. In 2015 the EU

[38] A decomposition analysis carried out by Bettio et al. (2013) on 2010 EU-SILC micro data shows that the "netting out differences in observed characteristics between women and men (who were ever in employment) has a modest impact on the average pension gap in most but not all" the eight considered countries (AT, DK, EE, FR, IT, NL, SE, UK). In most cases the impact is lower than 15% and it may increase or lower the gap. The reason why no clear pattern emerges is associated by the authors to "the complex interactions between factors that weight differently from country to country, although, individually, they pull in the same direction across countries" (Bettio et al., 2013 p.66-67). The characteristics considered in the analysis relate to marriage status (married, divorced, widow), education, employment history, being older than 80 years and having a certain share of 3rd pillar pension income.

[39] The indicators have been selected on the basis of their relevance and data availability.

[40] Corsi, M., 'Economic independence and the position of women on the labour market of the European Union, in: *A new strategy for gender equality post 2015: In-depth analysis*, Directorate General for Internal Policies. Policy Department C: Citizens' Rights and Constitutional Affairs. Gender Equality, Brussels: European Parliament 2014. http://www.europarl.europa.eu/RegData/etudes/IDAN/2014/509990/IPOL_IDA(2014)509990_EN.pdf)

average showed a difference of 13 p.p. between men and women (see Figure B2 in Annex B). A total of 13 countries (MT, IT, EL, CZ, RO, PL, NL, IE, HR, HU, AT, ES) had a gender gap above the EU average, with Malta (37 p.p.), Italy (21 p.p.), Greece (20 p.p.) and the Czech Republic (20 p.p.) among the worst performers. Negative gender gaps (e.g. employment rates higher for women than men) were present in Finland (-5 p.p.) and Estonia (-3 p.p.). The gap in old age employment is declining (it was 16.8 p.p. in 2008), probably due to the effects of increasing retirement age and the added worker effects of the crisis.

Restricting the attention to women in employment, other significant variables that may contribute to the gender gap in pensions are the average effective exit rate from employment and the duration of the working life.

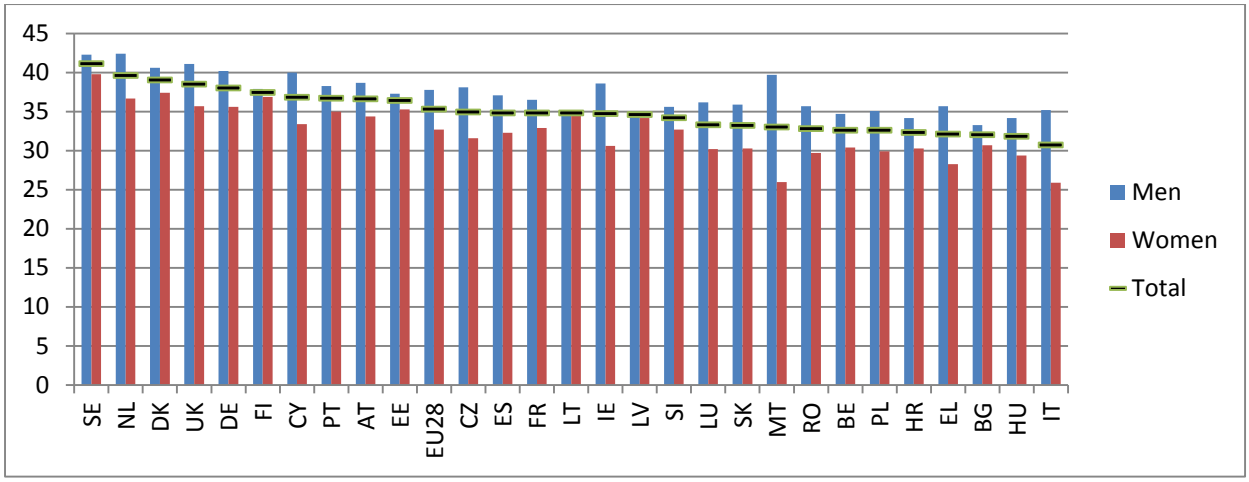
The **average effective exit age from employment** in the EU28 is not much different between women and men, being currently (2014) 63.6 years for men and 62.6 for women. Due to pension reforms it is projected to increase substantially in all Member States until 2060, with major steps taking place within the current decade[41].

However, gender differences are wide when considering the **duration of working life**, a crucial variable affecting the GGP with the strengthening of the contributory principle in pension reforms. Figure 3.4 shows gender differences in the number of years a person aged 15 is expected to be active in the labour market throughout his/her life[42]. In Europe, women have a shorter working life compared to men (with a gap of 5.1 years on average for the EU28 in 2014), usually due to unpaid care work. The most considerable differences are in Malta (13.7 years), Italy (9.3 years), Ireland (8.0 years) and Greece (7.4 years). On the contrary, Latvia shows the smallest gender gap (0.8 years), while Lithuania is the only country where the working life indicator is slightly higher for women (-0.1 years). Looking at the changes that occurred in recent years (2010-2013), average working lives increased for women in all European countries – in particular in Spain, Malta, Luxembourg, Belgium, Ireland, the Netherlands, Germany, Austria and France – except for Romania (European Commission and SPC, 2015).

[41] European Commission, *The 2015 ageing report: Economic and budgetary projections for the 28 EU Member States (2013–2060),* Directorate-General for Economic and Financial Affairs, March 2015, p. 66 http://europa.eu/epc/pdf/ageing_report_2015_en.pdf

[42] The duration of working life indicator measures the number of years a person aged 15 is expected to be active in the labour market throughout his/her life. This indicator has been developed and produced for analysis and monitoring under the Europe 2020 employment strategy. This indicator is derived from demographic data (life tables published in Eurostat online dataset demo_mlifetable) and labour market data (activity rates defined as in the online dataset lfsi_act_a but with unpublished detail by single age groups).

Figure 3.4: Duration of working life, EU28 and Member States, 2014



Source: Eurostat, LFS.Notes: the indicator measures the number of years a person aged 15 is expected to be active in the labour market throughout his/her life

Even if women's **working years** have been increasing in recent years, the risk of ending a working life with a pension-entitling career of only 30 years or even less is much greater for women than men, due to the length and frequency of career interruptions. Women with low or no working years are likely to receive only means-tested social pensions. According to calculations reported in the *Pension Adequacy Report* and based on EU-SILC data for 2012, **median career durations for women aged 65-79 ranged from only 6 years in Malta to 45 years in Portugal**. In 11 countries (DE, EL, HR, IT, BE, CY, ES, IE, LU, NL and MT) more than 20% of women born before 1945 were in employment for less than 15 years, while in eastern European countries (especially EE, LV, CZ, SK, BG, HU and PL) and Portugal working years were longer among women. This helps in explaining the relatively low GGP in these countries.

Gender differences in working hours

Besides shorter employment careers, gender differences in pensions depend on the lower working hours of women. The burden of family duties leads to a much higher frequency of part-time work among women. In 2015 the average number of usual weekly hours of work in EU28 was 40.1 for men and 33.6 for women. As shown in Table B5 (in Annex B), all European countries show a gender gap in the average number of weekly hours of work: the highest gaps (more than 8 hours per week) are registered in NL (10.4), UK (9.2), DE (8.9), AT (8.8) and IE (8.2), while the lowest (less than 2 hours) are in BG, RO, HU, LT, HR and LV.

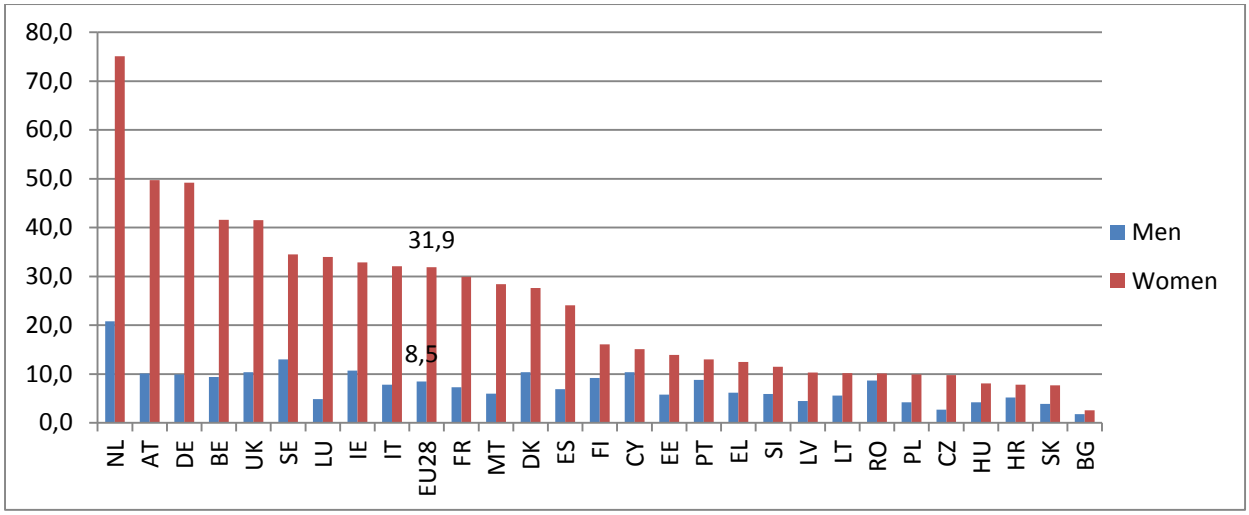
In all countries, gender differences in working hours are driven by disproportionately high rates of part-time employment among women, especially in the age 25-74. On average, the percentage of women (25-74) working part-time is 31.9%, 23.4 p.p. higher than that of men[43]. In 2015, one out of four women (24.7%) working part-time was involuntary. The Netherlands shows the highest proportion of women employed in part-time jobs (75.1%) and the highest gender gap (54.3 p.p.).

Although part-time employment may facilitate the labour participation and employment of women with care responsibilities, the segregation of women in part-time jobs implies lower

[43] Part-time employment is defined as people who usually work less than 30 hours per week in their main job.

annual earnings and lower career developments. This is also due to the difficulties in transitions from part-time to full-time positions[44].

Figure 3.5: Part-time employment as percentage of the total employment, by sex, age class 25-74, EU28 and Member State, 2015

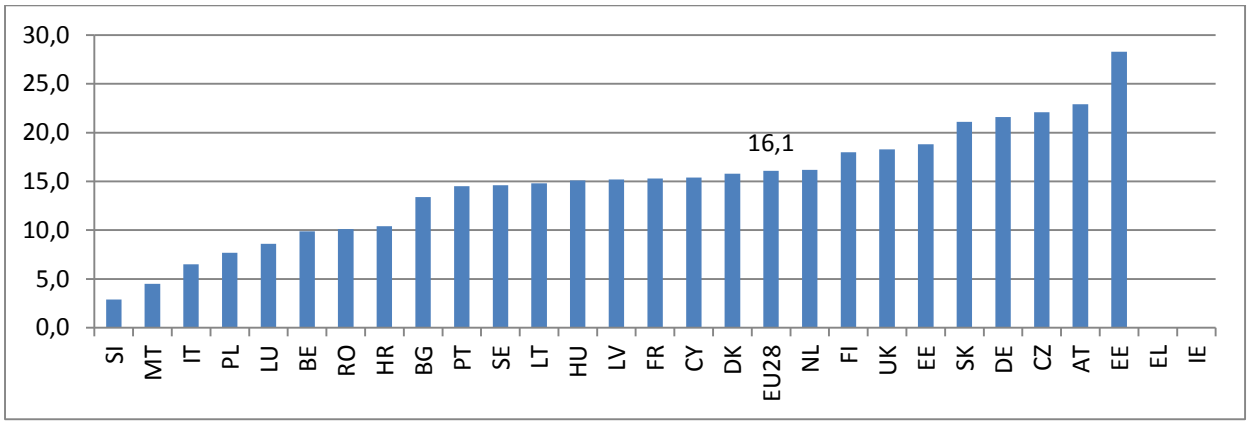


Source: Eurostat

The gender pay gap and differences in lifetime income

Another significant factor affecting the gender gap in pensions is the gender pay gap. Eurostat provides an indicator of gender pay gap (see Figure 3.6). This measures the difference between the **average gross hourly earnings** of male and female paid employees as a percentage of average gross hourly earnings of male paid employees.

Figure 3.6: Gender pay gap, EU28 and Member States, 2014



Source: Eurostat .Note: the gender pay gap measures the difference between average gross hourly earnings of male employees and of female employees as a percentage of average gross hourly earnings of male employees; no data for Greece for years 2011-2014 and for Ireland for 2013-2014. The population consists of all paid employees in enterprises with 10 employees or more in NACE Rev. 2 aggregate B to S (excluding O).

[44] For a review of these aspects, see EIGE, 'Gender equality and economic independence: Part-time work and self-employment', *Review of the implementation of the Beijing Platform for Action in the EU Member States*, Publications Office of the European Union, Luxembourg.
http://eige.europa.eu/sites/default/files/documents/MH0414228ENC.pdf

The gender pay gap was 16.1% for the EU28 in 2014 and positive in all Member States, with the highest gender pay gap in Estonia (28.3%) and the lowest in Slovenia (2.9%). As already anticipated (see page 22), the interaction between gender differences in the pay gap and in the pension gap is complex, being affected by the specific features of pension and social policies. For example, in Estonia the generosity of the public old-age pensions and care pension credits before recent reforms have more than compensated for the negative effects of the gender pay gap on life course earnings for current pensioners.

There are a number of complex and often interrelated factors that explain the existence of the gender pay gap. Equal pay legislation[45] outlaws paying women and men differently for the same job or for work of equal value. However, the gender pay gap is due to direct or indirect discrimination and to gender differences in labour market participation and employment conditions, such as:

- sectoral and vertical sex segregation in employment;
- women's concentration in non-standard jobs (especially part-time) where pay is often lower and career prospects weaker;
- organisational innovations such as 'new' individualised pay systems which increase pay diversity among employees with similar skills and positions[46].

Women are also at a disadvantage if we look at the comparison in **yearly earnings**, which are affected not only by the hourly pay gap but also by the higher incidence of part-time work among women. As shown in Figure 3.7, in 2010[47], on average women earned EUR 26,513 and men EUR 34,495 per year (EU27), resulting in a 23% gap in earnings. Gaps in annual earnings are highest in UK (31%), Estonia (30%) and Austria (27%)[48].

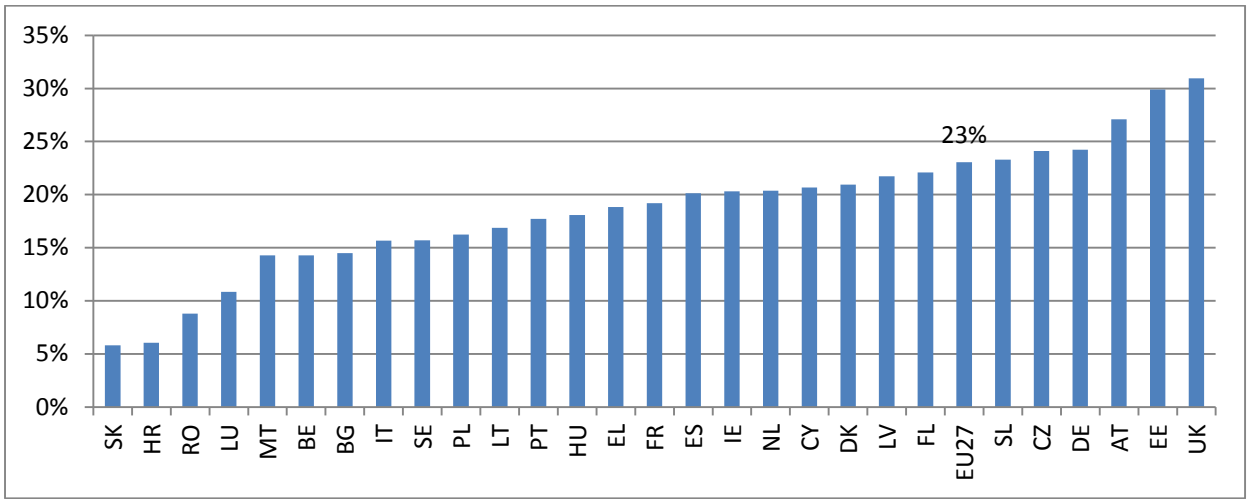
[45] The equal pay legislation (former Article 141 and in 1975 Equal Pay Directive)

[46] Smith. M., (2010). *Analysis note: The gender pay gap in the EU – what policy responses?* EGGE http://ec.europa.eu/social/BlobServlet?docId=4653&langId=en; http://ec.europa.eu/justice/gender-equality/gender-pay-gap/causes/index_en.htm. For a recent in depth analysis of the gender pay gap in EU countries see Boll C. et al., (2016), *Magnitude and Impact factors of the gender Pay Gap in EU countries*, Enege report, European Commission –DG Justice http://ec.europa.eu/justice/gender-equality/files/gender_pay_gap/2016_factors_gpg_en.pdf;

[47] No data are available for more recent years.

[48] If we compare gender gap measured on an hourly basis and a yearly basis for the same year (2010), the highest differences appear in Italy (10 p.p.) as well as in Poland and the United Kingdom (12 p.p.) (see EIGE, 2014).

Figure 3.7: Gender gap in mean annual earnings, EU27 and Member States, 2010



Source: Eurostat, SES [earn_ses10_28], NACE Rev. 2, B-S excluding O. Own calculation. Note: Gender pay gap is computed as the difference between mean annual earnings of men and of women as a percentage of men's mean annual earnings. Size class considered: 10 employees or more.

3.2.2 Family status, motherhood and caring duties

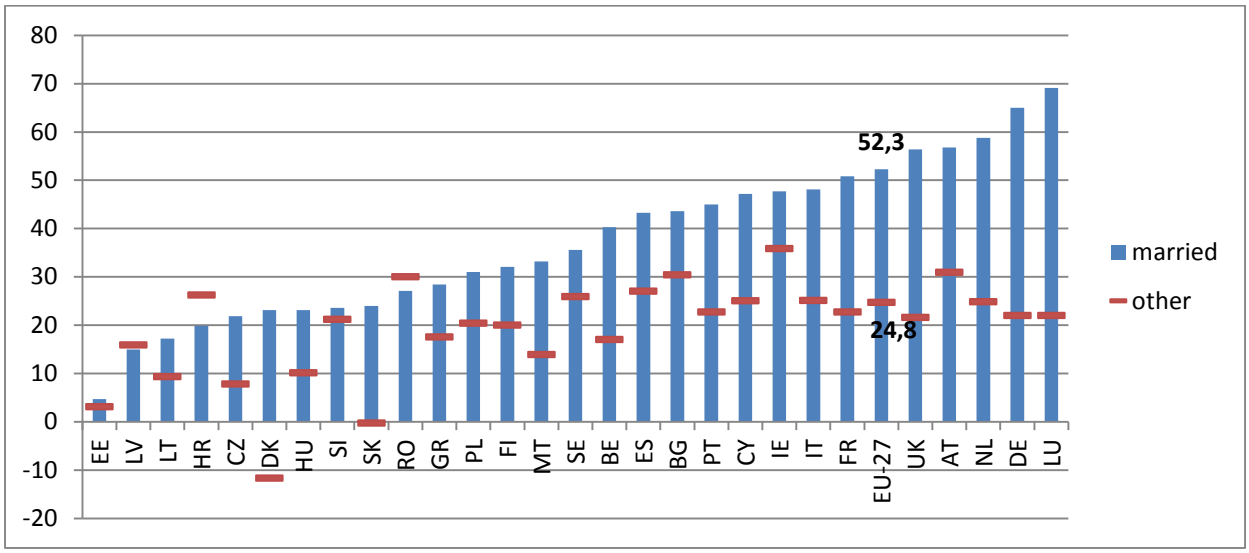
The uneven division of domestic labour and its effect on the ability of women and men to devote time to careers and labour market work touch on the GGP, which varies according to the **family status** (married or not) and **motherhood**.

As shown in Figure 3.8, in 2012 the gender gap in pensions for married women is on average (EU27) much higher (52.3%) than that of unmarried women (24.8%), which includes single, divorced and widowed. Almost all Member States show a higher GGP for married women compared to unmarried women. The highest GGP among married women is found in Luxembourg (69.1%) and Germany (65%). However, in some countries the difference in gaps between groups is very small (as in EE, LV, SI) or in favour of married women (as in RO and HR)[49].

Married women may face lower incentives for labour participation and career advancements than women living alone, and this negative effect is likely to be stronger for women married to high income partners (Kahn, García-Manglano and Bianchi, 2014). This translates, in most European countries, to a higher gender gap in pensions for married women with respect to single, divorced and widowed women. The fact that rich men's wives often do not work or work less than other women may further increase the gender gap.

[49] Tinios et al. (2015)

Figure 3.8: Gender gap in pensions (65-79) by marital status, EU27 and Member States, 2012



Source: Tinios et al., *Men, women and pensions*, 2015, Table 6 p.46. Authors' calculations on EU-SILC 2012 data. Notes: in BE and IE figures based on 2011 data.

Women are also particularly penalised due to their caring role in households. The existing **motherhood penalty** on employment and earnings often translates in the long term to a higher pension gap for women with children compared with women without children, as a consequence of their lower contributions.

As shown in Figure 3.9 for a number of EU countries, gender gaps in pensions tend to increase with the number of children – the so-called motherhood penalty which appears to be stronger in France and weaker in Denmark (Bettio et al., 2013).

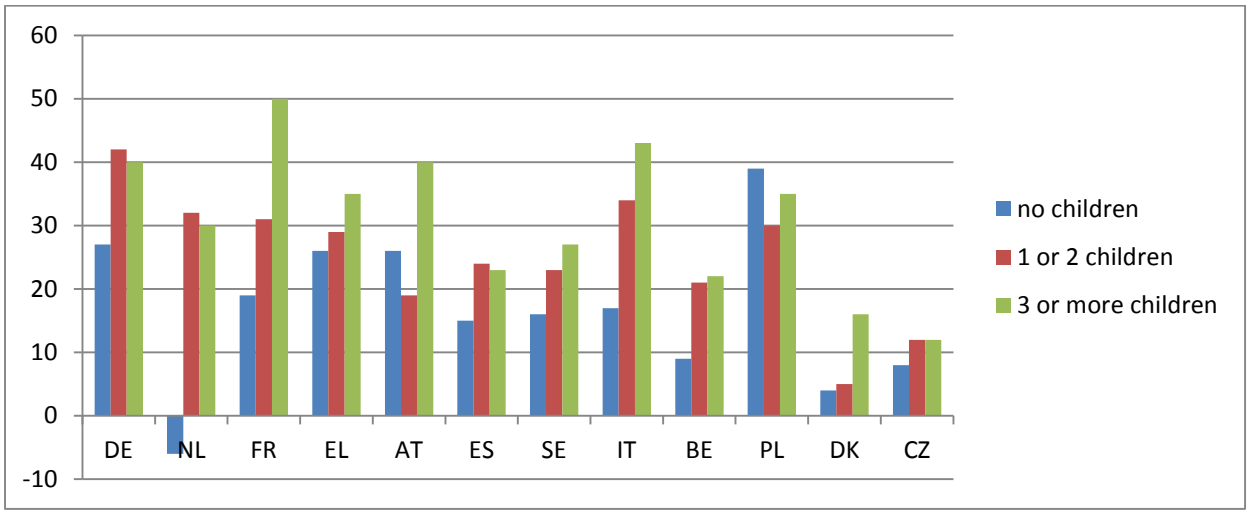
The impact of children on mothers' pensions has been underlined in several studies[50] and reflects the effect of care responsibilities on employment, career length, working hours and pay.

The difference in employment rates between men and women aged 25-49 increases with the number of children (from 1.7 p.p. without children, to 14.7 p.p. with one child, and to 30.5 p.p. with 3 children or more in 2015). This pattern is common across Member States[51]. While some countries show higher employment rates for women with respect to men where there are no children (BE, BG, DE, EE, IE, FR, CY, LV, LT, AT, PL, PT, FI) this is not true when we consider women with at least one child.

[50] Bonnet et al. 2006; Letablier et al., 2009; Bettio et al. (2013); Miani and Hoorens, 2014

[51] See Table B8 and Figure B3 in the Annex

Figure 3.9: Gender pension gap of women by number of children, 2006/07



Source: Bettio et al.(2013),*The Gender Gap in Pensions in the EU*, Figure 11.2 p. 62. Authors' calculations on SHARE, wave 2 (2006/7) and SHARELIFE (2008/9) data

Furthermore, more women than men take parental leave, motivate part-time jobs with care duties or have been forced to either reduce their working time or exit the labour market[52]. In addition, as shown by a large number of studies, there is also a significant wage penalty for having children[53]. As anticipated, with or without children, women are more likely to work part-time than men in all EU Member States. However, the gap widens with the number of children (+11.6 p.p. without children and +26.1 p.p. with one child). This can be seen in most Member States, with the widest gap being recorded in Germany, the Netherlands and Austria (see Table B9 and Figure B4 in Annex B).

All these negative effects on mothers' pensions entitlements are greater in countries lacking full-time childcare facilities.

3.2.3 Pension design features

In addition to the disadvantaged position of women in the labour market, pension designs may further aggravate the gender gaps in pensions. As anticipated in Chapter 2, the features of pension reforms that are more likely to affect the gender gap in pensions are:

- access to occupational and private pension schemes;
- the increase in retirement age and indexation mechanisms;
- the existence of redistributive public minimum pension schemes;
- the role of derived pension benefits and pension care credits in reducing the negative effects on pensions of motherhood and career interruptions.

Multipillar systems and access to occupational and private pension schemes

[52] In 2010, 80% of people who reduced their working time to care for their youngest child were women. Source: Eurostat, [lfso_10lredwor]. In addition, in the same year, 97% of person who did not work over 12 months to care for their youngest child were women (2010). Source : Eurostat, [lfso_10lstopwo].

[53] See for example: Kahn, García-Manglano* and Bianchi, 2014; Avellar and Smock, 2003; Budig and England, 2001; Budig and Hodges, 2010; Waldfogel, 1995, 1997 ; Foster, 2014; Ginn, 2004.

Current women pensioners are usually over-represented among old-age pension beneficiaries as shown in Figure 3.10. In 2013, old-age pension coverage ranged from 11.8% in Cyprus to 24.7% in Bulgaria, with 18 countries showing a coverage above 20%. In 15 countries, women show a higher incidence of old-age beneficiaries, with the highest positive gap recorded in Lithuania (+12 p.p.). Among the few countries with higher old-age pension coverage for men (LU, MT, ES, CY, IE, BE, IT, PT, HR), Luxembourg shows a negative gap for women of almost 12 p.p. of difference.

Figure 3.10: Old-age pension beneficiaries as a percentage of the population by sex, Member States*, 2013

Data Source: Eurostat .Note: The share is computed as total old-age beneficiaries (pensions beneficiaries at 31st December [spr_pns_ben]) over total population (Population on 1 January [demo_pjanbroad]). *No data for EU average, EL and PL in 2013

Conversely, among current pensioners, the share of women covered by occupational and private pension schemes is lower than that of men, especially due to the fact that the effects of reforms strengthening the multipillar system are not yet visible.

However, even in countries with a relatively mature multipillar system (e.g .Denmark, the Netherlands, and the UK) women tend to be less covered by occupational schemes. This is due to their relatively low employment rate and segregation in sectors and companies that are less likely to support access to occupational and/or individual schemes.

Individual voluntary schemes are mostly only affordable by high income workers (in prevalence men), even in countries where measures have been taken to support access through tax exemptions. The reason is that tax incentives are often more beneficial for higher income earners, more likely men, while direct subsidies[54] might be more effective as an incentive for both women and men to participate in voluntary schemes (Horstmann and Hüllsman, 2009).

Both occupational and individual supplementary pension schemes thus show a gender gap in coverage among today's pensioners. The gender gap in coverage for these schemes is however expected to decline for future retirees, as more women are expected to access these schemes.

The 2013 SHARE data presented in Table 3.1 show a gender gap in the coverage of supplementary pillar 2 (occupational company schemes) among SHARE countries with considerable participation in these pillars. There are however wide differences among these countries. The Netherlands and Germany show the larger gender gaps in the coverage of occupational schemes, while there is almost no gender gap in accessing these schemes in Italy and France. In the Czech Republic there are slightly more women covered by occupational schemes compared to men[55].

[54] A good practice example for direct subsidies for voluntary private pension schemes is Germany, which introduced a general subsidy and a child allowance paid by the state for the *Riester-Rente* (a voluntary private schemes with unisex tariffs).

[55] *SHARE - Survey of Health, Ageing and Retirement in Europe*, Lisa Callegaro and C. B. Wilke (2008), *Public, Occupational and Individual Pension Coverage*, chapter 6.

Gender differences are less relevant for individual private schemes, with the highest gap recorded in Denmark (8.6 p.p) and the Netherlands (8.1 p.p). It is interesting to note that in Austria, Spain, France and the Czech Republic more women are involved in individual pension plans than men.

Comparison with 2006/07 (see Table B12 in Annex B) shows a decline of the gender gap in coverage for pillar 2 (occupational schemes) in all countries, except for the Netherlands. On the contrary the gender gap in coverage shows an increase in 6 out of the 10 considered countries for pillar 3 (individual schemes). The countries presenting a decline in the gender gap in the coverage of individual schemes are Austria, Czech Republic, France, and Sweden.

Table 3.1: Gender gap in coverage by pillar, SHARE wave 2013 and variation with respect to wave 2007

MS	PILLAR 1				PILLAR2				PILLAR3			
	2013 Men (%)	2013 Women (%)	2013 gap (W-M)	2007 gap (W-M)	2013 Men (%)	2013 Women (%)	2013 gap (W-M)	2007 gap (W-M))	2013 Men (%)	2013 Women (%)	2013 gap (W-M)	2007 gap (W-M)
DE	97.3	95.2	-2.1	-4.8	33.0	19.9	-13.1	-17.4	5.8	3.5	-2.3	-0.7
NL	98.6	97.3	-1.3	0.7	85.7	52.5	-33.2	-30.9	14.2	6.1	-8.1	-4.8
FR	98.3	96.1	-2.2	-4.2	2.9	2.4	-0.5	-2.8	4.1	4.3	0.2	-1.7
AT	97.6	88.1	-9.5	-9.9	10.7	7.1	-3.6	-7.2	1.6	4.0	2.4	3.1
ES	94.7	66.9	-27.8	-27.9	1.4	0.3	-1.1	-3.1	0.8	1.3	0.5	0.3
SE	96.5	97.3	0.8	1.0	59.3	58.1	-1.2	-4.8	23.6	19.9	-3.7	-5.4
IT	87.7	80.3	-7.4	-6.6	4.1	3.6	-0.5	-2.5	1.1	0.8	-0.3	-0.2
BE	97.6	80.4	-17.2	-19.4	5.7	2.8	-2.9	-5.2	2.6	1.0	-1.6	-1.1
DK	96.7	98.7	2.0	0,9	39.0	34.3	-4.7	-7.7	21.7	13.1	-8.6	-8.4
CZ	93.6	92.7	-0.9	3,3	1.3	2.3	1.0	2.4	2.1	2.4	0.3	-0.5

Source: estimations based on SHARE data Waves 5 (*10.6103/SHARE.w5.500*), see Börsch-Supan et al. (2013) for methodological details. The new release 5.0.0 of waves 1 to 5 comprises the latest state of data cleaning, harmonisation across waves as well as updates, innovations and consistency checks based on information from all five waves. This way, a number of previously unreleased interviews have been added to the survey. These interviews have been held back in order not to release unchecked (and potentially erroneous) data.

http://www.share-project.org/t3/share/fileadmin/pdf_documentation/FRB2/Chapter_6.pdf

Besides coverage, it is useful to consider gender difference in the proportion of income for individuals over 65 deriving from private pension funds. According to EU-SILC microdata[56] shown in Table 3.2: in 2012 this share was still very low, especially for women. Ireland (3.8% for men and 0.68% for women) and the UK (5.17% and 1.59%) show the highest difference.

Table 3.2: Percentage of income from individual private pension plans over total income for individuals over 65 years, by sex, Member States, 2012

Country	Male	Female
AT	1.66	1.59
BE	0.43(b)	0.02
DE	1.18	0.86
FR	(:)	0.1
LU	0.48	0.41
NL	(:)	0.0015(b)
FI	2.07	1.49
SE	3.99	3.4
	0	0
IE	3.81	0.68
UK	5.17	1.66
	0	0
CY	1.11(b)	0.81
EL	(:)	0
ES	0.92	0.68
IT	0.07(b)	0.04
MT	1.35(b)	0.74
PT	0.3(b)	0.44
CZ	(:)	0.17(b)
HR	0	0
HU	(:)	0
PL	(:)	0.01
RO	(:)	0
SI	0.22	0.16

Source: Samek Lodovici et al. 2015, p. 52. IRS elaboration on Eurostat Microdata, EU-SILC 2012.

Notes: (b) limited reliability due to the small sample size (less than 50 observations). (:) Not reliable estimates due to the small sample size (less than 20 observations). Total income refers to the equivalised disposable income (HX090)

Increasing retirement age, life expectancy and pension indexation mechanisms

One significant source of gender inequality in pension entitlements is the application of **actuarially fair insurance principles**, that compare an individual's lifetime contributions with the individual's life expectancy at retirement age in order to establish pension benefits. According to these principles, the longer life expectancy of women (Figure B5 in Annex B) penalises them[57]. They either receive lower benefits even if they have paid the same

[56] Regular pensions from private plans (other than those covered under ESSPROS) refer to pensions and annuities received over the income reference period, in the form of interests or dividends, and income from individual private insurance plans.

[57] The way DC and NDC schemes are calculated may have significant effects on gender differences in pension income: when based on sex differentiated tariffs, given the differences in life expectancy at the age of retirement

contributions as men, or they would have to pay higher contributions or over longer periods to have the same benefits as men. The latter effects may also discourage employers from hiring women. Life expectancy automatic adjustment mechanisms for pension eligibility have been introduced in Denmark, France[58], the Czech Republic, the Netherlands[59] and Italy[60]; the actuarial principle for the calculation of pension benefits has been adopted in BG, DE, EE, FI, IE, IT, PL, PT, SE, SK, UK.

Furthermore, in almost every Member State **statutory retirement ages have been increased**, especially for women, and incentives have been introduced to postpone the effective exit from the labour market. According to the 2015 Ageing report, these reforms are expected to converge the average effective exit age of men and women from the labour market to 65.3 for men and 64.8 for women in 2060. However, given their higher life expectancy, on average the years in retirement are likely to remain higher for women than for men, especially compared to the average length of working career. The duration of retirement is estimated to be 50.4% of working career for men and 61.8% for women in 2060 (see Table B15 in Annex B). At EU level the increase in this percentage with respect to 2014 is expected to be +7 p.p. for men and 3 p.p. for women. The highest increase is expected in Romania for both men (+15.4 p.p.) and women (14.6 p.p.), while in Italy it is projected to be the sharpest decrease for both men (-6.4 p.p.) and women (-12.1).

As anticipated in Chapter 2, equalising men's and women's retirement age may have positive effects for future pensioners as it increases the financial incentives for women to take up paid work[61]. However, for such positive effects to happen, appropriate employment policies and care services must be provided; otherwise, the higher retirement age will only result in later access to the pension system and lower pension payments for women than for men[62].

Measures to support women's pensions: minimum pension schemes, care credits and derived benefits

Minimum pension schemes, either based on universal flat-rate pensions or contributory minimum pensions, and social assistance means-tested benefits[63] are meant to top-up low

between men and women, these schemes will determine higher contribution rates or lower pensions for women. Cfr. OECD, Vulnerability of pension system, Paris 2014; Samek Lodovici et al., 2015.

[58] In France it is the contribution period for the receipt of a full pension which is linked to life expectancy and the adjustment is not completely automatic as the government has to enact it.

[59] In the Netherlands, the retirement age will be adjusted to life expectancy from 2023.

[60] Not surprisingly in those Member States that have legislated links to life expectancy (Italy, Cyprus, the Czech Republic, Denmark, Greece, the Netherlands, Portugal and the Slovak Republic) the duration of retirement is estimated to increase less or even to decline (as in Italy with -1.4 in 2060, see Table B14 in Annex B).

[61] See Corsi, M. and D'Ippoliti, C., 'Poor old grandmas? On gender and pension reforms in Italy, *Brussels Economic Review - Cahiers Economiques De Bruxelles*, vol. 52, no 1, 2009.

[62] In this respect some authors argue that women's lower retirement age and earlier access to the pension system may be considered a compensation for their unpaid family work. See for example Ginn, J., *Gender, pensions and the life course – How pensions need to adapt to changing family forms*, The Policy Press, Bristol, 2003.

[63] Social assistance benefits, usually means-tested, are the only provision available to guarantee a minimum income in old age in Germany, Romania and Lithuania. In Austria and Poland social assistance allowances are available for the general population, while in Belgium, Ireland, Italy, Malta, Portugal, Sweden and the United Kingdom there are social assistance benefits for the elderly in addition to other minimum income provisions. These benefits are means-tested and the eligibility criterion is age.

pensions. They provide some correction where women have systematically low or even no contribution histories.

Retired women are over-represented in **minimum public pensions schemes** in most countries, as shown in Table 3.3. The table presents gender differences in the share of old-age pensioners who are beneficiaries of minimum income provisions for older people (MIPOP). The largest gender differences are to be found in Sweden, Finland, Ireland, Spain, Croatia, Cyprus, Luxembourg and Austria.

Even if increasing female employment rates led to increased entitlements in contributory pension schemes, many are indeed liable to fail to accrue rights to more than a minimum pension given their low working hours and low pay (European Commission and SPC, 2015).

Table 3.3: Shares of beneficiaries of minimum income provision, Member States, 2013

MS	MIPOP name	MIPOP beneficiaries as % of old-age pensioners		MIPOP Beneficiaries aged 65+ as % of total population	
		Men	Women	Men	Women
BE	*Guaranteed minimum pension for the full career*	:	:	:	:
	GRAPA	5.3		4.3	6.5
BG	*Social old-age pension*	0.2	0.2	0.3	0.2
CZ	*Allowance for Living*	0.3		0.3	:
DK	*Public old-age pension*	100	100	97	98.8
DE	*Benefits from social assistance*	:	:	:	:
EE	*National pension*	0.3	0.4	0.7	0.6
IE	*State Pnesin (non-contributory)*	13.9	33.1	13.9	19.7
EL	*No reply*	:	:	_	_
ES	*Minimum pension*	24	36.2	22.6	29.9
	Non-contributory old-age pension	1.3	4.8	1.4	4.1
FR	*Minimum contributive pension*	:	:	:	:
	Solidarity allowance for elderly	:	:	:	:
HR	*Minimum pension*	24.7	44.5	20.5	25.7
IT	*Minimum pension - Social Increase*	:	:	4.8	10.4
CY	*Minimum pension*	14.1	35.4	16.5	30.6
	Social pension	0.7	28.2	0.9	24.9
LV	*Minimum old-age pension*	4.9	9	15.8	14.4
LT	*Social assistance pension*	0.9	2.4	0.8	1.4
LU	*Minimum pension*	6.3	33.7	11.4	40.6
	Guaranteed minimum income from general SA (not a MIPOP but data for 2013 for 60+)	1.8	1.9	1.9	2.8
HU	*Minimum old-age pension (contributory)*	0.1	0.1	:	:
MT	*National Minimum pension*	4	6	5.8	6.7
	Non-contributory old-age pension	2	6	2.2	6.9
NL	*General old-pension (AOW)*	:	:	:	:
AT	*Compensation supplement to pension*	5.7	13.7	6	11.9
PL	*Minimum old-age pension*	:	:	:	
PT	*Social old-age pension (non-contributory)*	4	4	:	:
	Solidarity supplement for the elderly	5	12	6	9.6
RO	*Social Indennity for Pensioners*	:	:	3.9	14.8
SI	*Minimum pension*	0.7		:	:
	Supplementary Allowance	:	:	:	:
SK	*Assistance in material need*	0.7	0.4	0.7	0.4
FI	*National Pension*	27.2	47.5	30.7	51.7
	Guaranteed Pension	2.5	2.7	1.9	5.5
	Social Assistance 60+	2.8	2.3	1.4	1.4
SE	*Guaranteed pension*	17.6	60	18.1	61.2
	Maintenance support for the elderly	0.9	0.9	0.9	0.9

UK	*State Pension Credit - Guaranteed Credit*	:	:	15.6	18.4

Source: Pension Adequacy Report 2015. Data Source: Member States. : - data not provided *GRAPA: No split by gender; the relation is made to the number of old-age and survivors' pensioners in the private sector.

To assess the gender effects of minimum pensions it is important to take into account not only the income support they provide to prevent poverty in old age, but also their effects on labour supply and lifetime savings.

The first dimension can be addressed by considering the level of minimum benefits with respect to the poverty thresholds. According to Horstmann and Hüllsman (2009), only in Belgium and Portugal is the benefit level set at about 100% of the national poverty thresholds for contributory minimum pensions; in the other EU25 MSs it is usually below this threshold. The second strictly depends on the design of minimum pensions. In particular, universal/residence-based flat-rate pensions are more favourable to women compared to contributory minimum pensions, as they are not based on the individual employment history. However, they may reduce the incentive to participate in the labour market.

Finally, relevant to both dimensions is the indexation system, which may aggravate the relative income position of pensioners if minimum benefits are not fully indexed to prices or wages or indexation is discretionary.

Turning to **derived pension benefits**, the most important provision is survivor benefits. As shown in Table 3.4, in most European countries the proportion of women among beneficiaries is much higher than that of total old-age pension beneficiaries and largely predominant due to women's longer life expectancy compared to men.

Table 3.4: Female beneficiaries of survivors' pensions, Member States, 2006 and 2013

	% women of total old-age pension beneficiaries		% women of total survivors beneficiaries	
	2006	2013	2006	2013
AT	52.1	52.1	88.0	87.9
BE	39.8	44.8	98.0	96.4
BG	58.8	58.5	79.8	80.7
CZ	33.7	37.9	97.2	98.3
CY	63.7	61.3	84.1	82.6
DE	56.2	55.2	85.7	83.7
DK	56.9	55.2	100.0	58.0
EE	67.5	64.9	53.4	51.4
EL	44.6	45.2	94.1	93.4
ES	37.8	38.7	88.4	87.5
FL	58.9	57.0	83.7	82.3
FR	49.6	52.0	91.8	89.2
HU	Na	51.4	Na	93.3
IE	Na	61.4	Na	83.4
IT	39.0	40.0	87.9	85.9
LT	48.9	48.7	87.1	86.6
LU	66.0	66.1	79.8	80.5
LV	27.0	29.8	92.9	90.8
MT	66.6	65.0	70.0	76.5

NL	30.8	29.9	99.3	99.1
PT	54.7	54.2	84.2	87.4
PL	59.0	58.1	80.9	82.2
RO	51.8	51.7	82.2	82.2
SE	57.5	58.2	57.5	58.1
SI	54.3	53.3	95.4	94.2
SK	52.8	50.6	78.0	84.3
UK	65.1	63.0	91.7	85.5

Female beneficiaries of survivors pensions (without double counting in old-age and in survivors' functions) over the total beneficiaries of the same pension category.

Source: calculation on Eurostat data – Social Protection Statistic (Pensions beneficiaries at 31st December [spr_pns_ben])

This proportion has been declining over the period 2006-2013 in most Member States, expect for BG, CZ, LU, MT, PT, PL, SE and SK. The major decline has been recorded in Denmark, where the percentage of women over total beneficiaries has almost halved since 2006. This trend may be attributed to i) derived pension rights are becoming less important among younger cohorts of pensioners, as an increasing number of women work and earn their own pension entitlements, and ii) more stringent entitlement rules[64].

However, estimates of the theoretical replacement rates provided in the Pension Adequacy Report (PAR) 2015 show that in 22 Member States survivor pensions still provide more generous benefits to widows than those resulting from their own pensions.

Several Member States provide **care pension credits** to reduce the negative effects on pensions of motherhood and career interruptions. All countries but Denmark, Slovenia and the Netherlands have childcare credits, which are often included in the statutory pension schemes. Other forms of care credits (for the elderly, the disabled or severely ill family members) are less widespread, being available only in 12 Member States (BG, HR, CZ, EL, IE, IT, LT, LU, MT, SK, ES, UK). There are wide differences among countries on the duration and scope of these credits, as shown in Table B10 in Annex B.

3.3 Gender differences in pension adequacy and poverty risks

Due to the fundamental role of pensions in preventing old-age poverty, the gender gap in pensions may strongly affect gender differences in poverty and social exclusion risks. The adequacy of pensions in preventing poverty in old age is thus particularly important, especially for those population groups who are more susceptible to poverty risks and social vulnerability like women, especially when living alone[65].

3.3.1 Gender differences in economic independence and poverty risks in old age

Figure 3.11 shows the gender differences in the at-risk-of-poverty and social exclusion rate in 2014 for elderly people (65+). While differences exist across countries, a higher risk of poverty and social exclusion can be observed for elderly women relative to men. On average, for the EU as a whole, the percentage of elderly women at risk of poverty or social exclusion

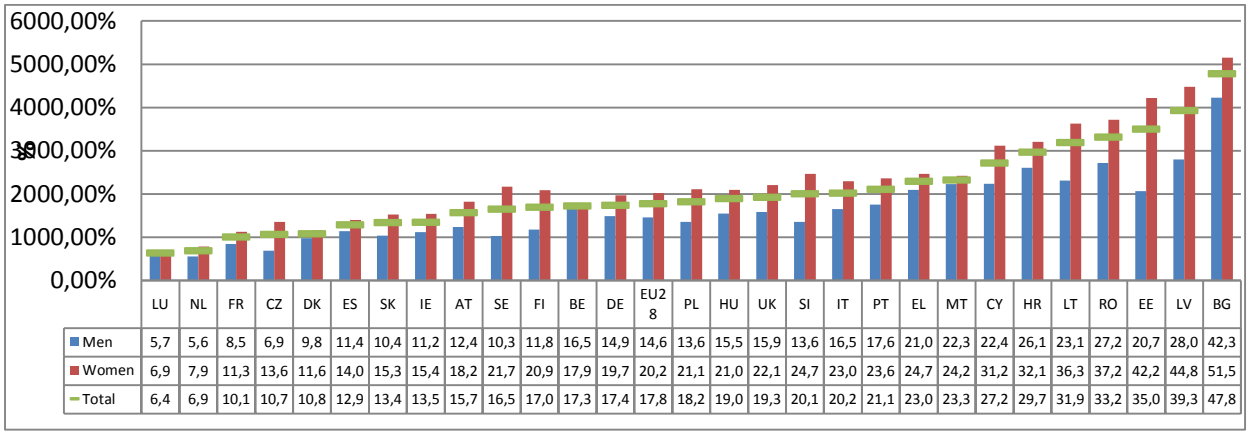
[64] For example in the Danish occupational pillar, survivor pensions have been replaced with lump sum payments, and in the Netherlands and Sweden they are paid only until the retirement age is reached (PAR, 2015 pg. 146). See also M. Samek Lodovici et al., The socio-economic impact of pension systems on the respective situations of women and men and the effects of recent trends in pension reforms 2011 http://ec.europa.eu/justice/gender-equality/files/equal_economic_independence/pensions_report_en.pdf.

[65] Samek Lodovici et al., *Elderly women living alone: an update of their living conditions*, 2015 http://www.europarl.europa.eu/thinktank/it/document.html?reference=IPOL_STU(2015)519219

was 20.2% in 2014, compared to 14.6% of men. Estonia presents the broadest gender gap (21.5 p.p.), while Luxembourg shows the narrowest (1.2 p.p.).

The AROPE indicator combines three sub-indicators: i) a relative component – the at-risk-of poverty rate/monetary poverty (AROP)[66]; ii) an absolute component – material deprivation; and iii) a labour market component – severe low work intensity[67], referring to the population aged below 65.

Figure 3.11: At-risk-of-poverty or social exclusion rate (AROPE), 65 years or over, by gender, EU28 and Member States, 2014



	LU	NL	FR	CZ	DK	ES	SK	IE	AT	SE	FI	BE	DE	EU28	PL	HU	UK	SI	IT	PT	EL	MT	CY	HR	LT	RO	EE	LV	BG
Men	5,7	5,6	8,5	6,9	9,8	11,4	10,4	11,2	12,4	10,3	11,8	16,5	14,9	14,6	13,6	15,5	15,9	13,6	16,5	17,6	21,0	22,3	22,4	26,1	23,1	27,2	20,7	28,0	42,3
Women	6,9	7,9	11,3	13,6	11,6	14,0	15,3	15,4	18,2	21,7	20,9	17,9	19,7	20,2	21,1	21,0	22,1	24,7	23,0	23,6	24,7	24,2	31,2	32,1	36,3	37,2	42,2	44,8	51,5
Total	6,4	6,9	10,1	10,7	10,8	12,9	13,4	13,5	15,7	16,5	17,0	17,3	17,4	17,8	18,2	19,0	19,3	20,1	20,2	21,1	23,0	23,3	27,2	29,7	31,9	33,2	35,0	39,3	47,8

Source: Eurostat, EU-SILC Note: % of population.

According to the AROP indicator in 2014, 15.8% of women aged 65 or above were at risk of poverty in the EU28 compared to only 11.2% of men. Data by country (presented in Table B16 in Annex B) show that the largest gender gap is in Estonia (+21.2 p.p.).

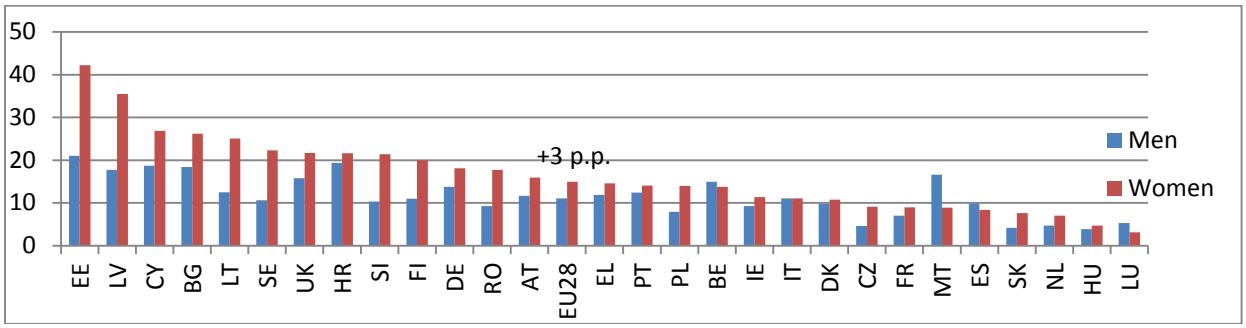
Turning to the severe deprivation indicator, in 2014 almost all countries show a higher proportion of elderly women compared to men. On average (EU28) women had a risk of severe material deprivation which is 2.2 p.p. higher than that of men. Gender gaps are particularly high in Bulgaria (7.4 p.p.) and Latvia (7.1 p.p.) followed by Romania (6.1 p.p.) and Hungary (5.0 p.p.), all countries characterised by levels of material deprivation above the mean (Figure B6 in Annex B).

Restricting attention to retired people, the percentage of retired people who are at risk of poverty (Figure 3.12) also shows a higher risk of poverty for women than men (15% vs 11.1% in 2014). High gender gaps are registered in Estonia (21.2), Latvia, Lithuania, Sweden and Slovenia. Differences lower than the EU28 average are to be found in 14 countries (MT, LU, ES, BE, IT, HU, DK, PT, FR, IE, HR, NL, EL, SK). In four countries (Malta, Luxembourg, Spain and Belgium), however, men were more at risk of poverty than women.

[66] The AROP indicator refers to the share of elderly people who are at risk of monetary poverty, i.e. with an equivalised disposable income (after social transfers) below the at-risk-of-poverty threshold, set at 60% of the national median equivalised disposable income after social transfers.

[67] Eurostat, The measurement of poverty and social inclusion in the EU: achievements and further improvements, 2013 https://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.15/2013/WP_25_Eurostat_D_En.pdf

Figure 3.12: At-risk-of-poverty rate for pensioners (65 years and over), by sex, EU28 and Member States, 2014



Source: Eurostat. EU-SILC

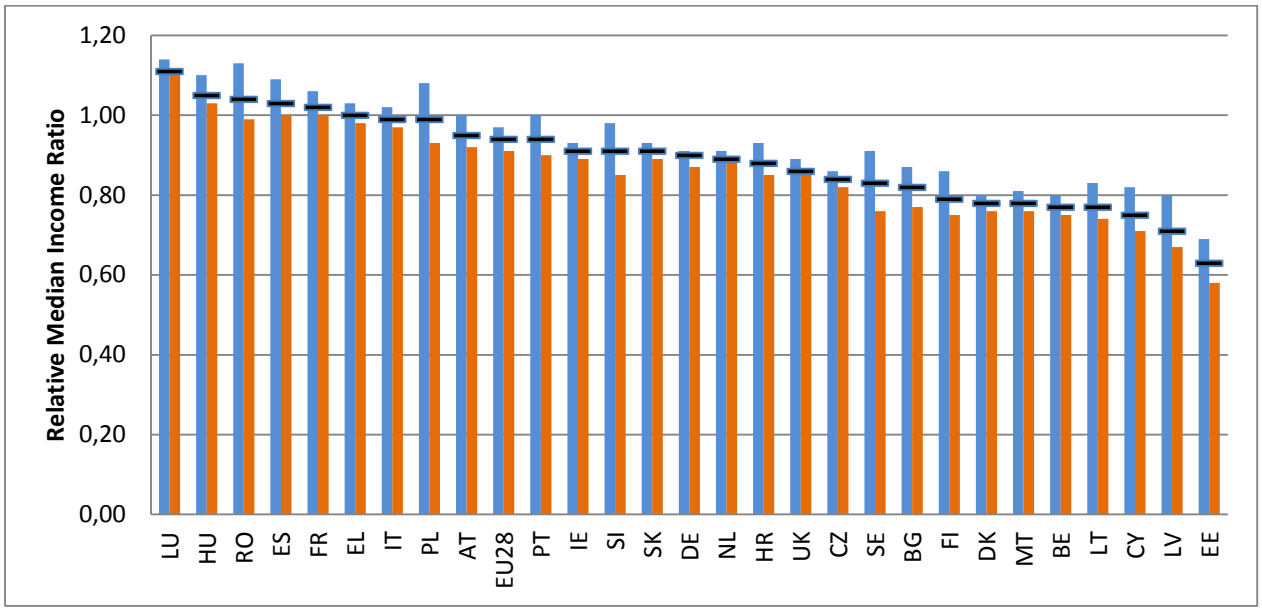
There is however no clear relationship between the gender pension gap and gender differences in poverty risk. As underlined by Tinios et al. (2015) this is due in part to the fact that gender pension gaps are defined at the individual level, while poverty is defined at the household level. In addition, many western European countries with a very large gender gap in pensions (like Austria, Germany, and the Netherlands) present low poverty rates thanks to generous welfare benefits.

Gender differences in the annual **median equivalised net income**[68]**,** are presented in Figure B7 and Table B18 in Annex B for both elderly women and retired women for 2014. The gender gap in the annual median equivalised net income is lower in most countries for retired women compared to the overall population of elderly women. This reflects the importance of paid work in reducing gender differences in old-age income. The wider gender gaps are again to be found in Estonia, Latvia and Sweden, although Sweden shows relatively high pension incomes both for men and women. Conversely, for Greece there are no differences in the median equivalised net income between retired men and women. In Malta, Luxembourg, Ireland, Italy and Spain retired women earn more than men on average, probably due to the possibility of integrating the survival pension with their own pension.

An indicator of the worsening of economic conditions after retirement is the **relative median income ratio** (see Figure 3.13:). This compares the median disposable income of people aged 65 or more with respect to the median equivalent income of those below 65. The indicator shows that women experience on average a greater worsening of their economic conditions when retired compared to men in all European countries. At EU level, the difference between the relative income ratios of women and men was 6 p.p., with nine countries showing a gap above the average (PL, SE, RO, SI, LV, FI, CY, EE, PT, BG).

[68] The equivalised disposable income is the total income of a household, after tax and other deductions, that is available for spending or saving, divided by the number of household members converted into equivalised adults. It is used for the calculation of poverty rates and social exclusion. The income reference period is a fixed 12-month period for all countries except UK and IE.
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:Relative_median_income_ratio

Figure 3.13: Relative median income ratio (65+), total and by sex, 2014



Source: Eurostat. EU-SILC.

Also the **aggregate replacement ratio at retirement**[69] which focuses on how pension income after retirement compares to income from work in the period before retirement, shows a lower capability of pensions in supporting income maintenance for women. As shown in Table B19 (in Annex B) in 2014 the EU28 unweighted average pension income reached 54% of current earnings for women aged 50-59 years compared to 58% for men [3]. Bulgaria, Croatia and Cyprus showed the lowest replacement rates for women in 2014, while the highest are reported for Luxembourg, Greece, Slovakia, Romania and France. Between 2008 and 2014 the aggregate replacement ratio at retirement increased on average for the EU27 more for men than for women. Most Member States show an increase in the female aggregate replacement ratio, except Ireland, Hungary, the Netherlands, and Sweden.

3.3.2 Gender differences in current and future pension adequacy for different career profiles

In order to assess gender differences in the income replacement capacity of pension systems it is useful to consider the effects of different career profiles.

The Commission's *2015 Pension adequacy report* provides gender comparisons of pension adequacy by means of the so-called **theoretical replacement rates** (TRRs). These are based on calculations of the level of pension income in the first year after retirement for a hypothetical worker who retired in 2013, measured as a percentage of individual earnings at the moment of retirement. TRRs are built on different scenarios of career lengths [70] and on

[69] It is measured as the ratio of median personal (non-equivalised) income from pensions of those aged 65-74 years to median personal (non-equivalised) income from work of people aged 50-59 years. Only people who have spent the total reported time in the relevant activity status are considered.

[70] For a complete description of the cases and the underlying assumptions, see European Commission and SPC, 2015. All TRR cases are calculated separately for men and women. For base cases I and III ('increase in SPA'), gender differences are explained only by differences in retirement ages or other retirement rules. In contrast, the AWG case is based on gender-specific labour market entry and exit ages. No gender-specific earning assumptions

a number of variants such as different earning profiles (average, low and high earnings), gender, and net/gross income[71].

Comparisons for net current TRR for men and women with average earnings under different career lengths can be found in Table B20 in Annex B. These show that with a 40-year career until age 65 both for women and men (base case I), the current (2013) net replacement rates for women would be improved in 9 countries (EE, CZ, AT, LT, BG, UK, HR, SI, SK) among those where a gender difference exists. The results for women deteriorate under the hypothesis of a career starting at age 25 to the current gender-specific standard pensionable age– SPA (case III) [72] in all countries but Estonia and Slovenia.

As expected, these results show that having a longer career (case I) benefits women. Lower standard pensionable ages for women translate into lower replacement rates (case III). However, as underlined in the report, an uninterrupted career of 40 years tends to be unrepresentative of women's conditions. On average, women still have shorter periods of contributions and a pension-entitling career of only 30 years or less which is likely to provide a pension income below the poverty risk threshold when associated to low earnings. Moreover, while gender disparities in employment and retirement age are narrowing, gender gaps in remuneration and working hours are persisting, as shown before.

Net TRRs also show an expected declining trend in the future due to pension reforms. Prospective net TRRs at average earnings (resulting from a career starting at age 25 until the standard pensionable age, Case III) are expected to decline for both men and women in 14 countries (BE, IE, ES, FR, HR, LV, LU, MT, NL, PL, PT, RO, FI, SE); only for men in the UK and only for women in Estonia (see Table B21 in Annex B). Prospective net TRRs in 2053 are expected to range from a minimum of 39.1% for women and 41.1% for men (in RO) to a maximum of 92.5% (NL).

According to the projected change in net TRRs between 2013 and 2053 (for average earnings) in only 3 countries (BG, RO and SI) are differences between men's and women's replacement rates expected to persist. Results however strongly differ across countries in the sign of the projected change: (under case III) an increase in Net TRRs is expected in BG, LT, SI, UK (just for women), CZ, SK and AT, while a decrease is expected in EE (just for women), HR, RO and PL. The comparison between the different career assumptions shows that **longer careers up to increased SPA in 2053 will lead to higher replacement rates than the 40-year career**. Hence, the emphasis put by pension reforms on longer careers, the stronger links between pensions and contribution levels and the increasing role of pre-funding, may all impact on the gender gap in pensions, whatever the improvements in women's labour market participation.

3.4 Concluding remarks

Women in all Member States have considerably lower average public pension benefits than men. The current gender gap in pensions is estimated to be 40.2% on average for the EU28 in 2014, a figure more than twice the gender pay gap (16%).

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are used. TRRs are calculated for a wide range of career patterns that represent both males and females starting their careers today. Different TRR results for men and women signal gender differences in the pension system itself.

[71] The gross TRR considers the pre-taxed income (excluding employer contributions but including employee contributions), whereas the net TRR includes income taxes and employee contributions.

[72] The standard pensionable age (SPA) is defined as the earliest age at which the individual can retire without any exit penalty.

The gender gap in pensions shows wide country variation, ranging from 3.7% in Estonia to 48.8% in Cyprus. The gender gap in pensions reflects both lower pension coverage among women compared to men and lower pension benefits for women. The gender gap in pension benefits translates into higher poverty risks for older women compared to men.

The large gender pension gap in average pension benefits in Europe is the result of both gender imbalances in the labour market and pension design features.

Gender imbalances in the labour market which affect the gender gap in pensions are:

- gender gaps in labour participation and employment;
- women's discontinuous employment histories and lower working times;
- gender gaps in pay and lifetime earnings resulting from gender segregation in the labour market;
- labour market discrimination;
- the uneven distribution of unpaid care and domestic work and fiscal and welfare policies that discourage women from paid work.

Women with care responsibilities and women living alone are particularly exposed to low pension benefits and high poverty risks in old age. Among the poorer pensioners, single women are considered most at risk of poverty, because they cannot count on survivor pensions or the income of the partner.

It is not possible to determine the independent effect on the gender gap in pensions of each pension design feature. However, recent comparative research has identified a number of aspects of current pension schemes that are considered particularly important in generating and amplifying gender inequalities in pensions. In particular, the closer link of pension benefits to lifetime contributions and the multipillar systems supported by recent pension reforms are likely to further penalise women. This will increase the dependence of women on the income of their partners, especially in those welfare systems largely based on protection provided by the family rather than by the state on the basis of individual citizenship rights.

Specific measures are needed to support women's continuous employment and to contrast the motherhood penalty, reducing the barriers to longer and less interrupted working lives and equal pay for equal work. Also, women's access to occupational and individual supplementary pension schemes has to be supported, as well as changes in the design of these schemes that currently penalise women. Some features of pension systems that support women's pensions, such as universal flat-rate minimum pension schemes, care pension credits and derived benefits should also be supported, although carefully considered in order to contain their negative effects on labour market participation.

4 MEASURES TAKEN TO REDUCE THE GENDER PENSION GAPS AT EU AND MS LEVEL

This chapter aims at presenting the role of EU institutions in tackling the gender pension gap and to identify the measures taken at MS level. To this end, it presents the way the EU has focused on equal opportunities and equal treatment between women and men with specific attention to the EU Directives that have stressed the application of these principles in pension systems. Moving from this, it discuss how gender is internalised in the recommendations provided to the Member States within the European Semester coordination process. These are the main measures that, at Member State level, have been taken to contrast the gender pension gap phenomena.

4.1 The role of EU institutions

4.1.1 EU Directives on equal opportunities and equal treatment with focus on Directives 2006/54/EC, 2004/113/EC and 79/7/EEC

Since its beginning, the European Union has focused on equal opportunities and equal treatment stressing the importance of prohibiting any form of discrimination.

Historically, the first prohibition of discrimination was expressed in the **Council Directive 75/117/EEC of 10 February 1975**[73] on *the approximation of laws of the Member States relating to the application of the principle of equal pay for men and women*. Its aim with respect to pay was to implement the prohibition of discrimination expressed in Article 141 TEC (presently Article 157 TFEU[74]). There were other directives adopted subsequently, such as (i) **Council Directive 76/207/EEC** of 9 February 1976[75] on the implementation of the principle of equal treatment for men and women as regards access to employment, vocational training and promotion and working conditions; (ii) **Council Directive 86/378/EEC** of 24 July 1986[76] on the implementation of the principle of equal treatment for men and women in occupational social security schemes and (iii) **Council Directive 97/80/EC of 15 December 1997**[77] on the burden of proof in cases of discrimination based on sex. In 2000 two new directives were adopted based on Article 19 TFEU in which discrimination on other grounds was regulated, namely **Directive 2000/43 and Directive 2000/78**. These two legal documents significantly expanded the extent of discrimination criteria.

With specific regard to pension-related aspects, three gender equality directives are the main legal references and have had a significant impact on pension schemes:

[73] Council Directive 75/117/EEC of 10 February 1975 on the approximation of the laws of the Member States relating to the application of the principle of equal pay for men and women http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31975L0117&from=HR.

[74] https://europadatenbank.iaaeu.de/user/view_legalact.php?id=16.

[75] Council Directive 76/207/EEC of 9 February 1976 on the implementation of the principle of equal treatment for men and women as regards access to employment, vocational training and promotion, and working conditions http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31976L0207:en:HTML.

[76] Council Directive 86/378/EEC of 24 July 1986 on the implementation of the principle of equal treatment for men and women in occupational social security schemes http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31986L0378&from=EN.

[77] Council Directive 97/80/EC of 15 December 1997 on the burden of proof in cases of discrimination based on sex http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997L0080&from=RO.

- **Council Directive 79/7/EEC of 19 December 1978**[78] on the progressive implementation of the principle of equal treatment for men and women in matters of social security

In 1976 the Member States could not reach an agreement on the equal treatment of men and women in social security. Therefore Directive 76/207 has postponed the implementation of the principle of equal treatment for men and women in that area by stating that Member States would adopt provisions dealing with social security later on. In December 1978, Directive 79/7 was adopted. The purpose of this Directive is the progressive implementation, under social security and other aspects of social protection, of the principle of equal treatment for men and women in matters of social security. Indeed, Directive 79/7/EEC has implemented the principle of equal treatment between men and women in social security relating in particular to statutory pensions.

The material scope is defined in Article 3. The Directive applies to statutory schemes that provide protection against the following risks: sickness, invalidity, old age, accidents at work and occupational diseases, and unemployment. It also applies to social assistance, but only in so far as it is intended to supplement or replace the statutory schemes covering the above-mentioned risks.

Provisions for survivors' and family benefits are excluded, except for family benefits granted by way of increases in benefits due in respect of the risks mentioned above.

The Directive prohibits both direct and indirect sex discrimination (Article 4(1)).

The Directive, however, contains a number of exceptions to the principle of equal treatment:

- ✓ Member States are, for example, allowed to maintain different retirement ages for men and women. Even if there is no obligation under EU gender equality law to equalise pensionable ages for men and women through social security, gender equalisation is often a first step in reforms aimed at increasing the retirement age in general. Such reforms seek to preserve the adequacy and sustainability of pensions[79].
- ✓ Other exceptions are listed in Article 7 as follows:
  - the determination of different pensionable ages for men and women in old-age pensions and retirement pensions;
  - certain advantages related to the fact that the persons concerned had brought up children and may have interrupted employment for that purpose.

- **Council Directive 2004/113/EC of 13 December 2004**[80] implementing the principle of equal treatment between men and women in the access to and supply of goods and services.

In 2004 the scope of application of the principle of equal treatment of men and women was broadened with the adoption of Directive 2004/113 – implementing the principle of equal

[78] Council Directive 79/7/EEC of 19 December 1978 on the progressive implementation of the principle of equal treatment for men and women in matters of social security
http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31979L0007&from=EN.

[79] European Commission, *Green Paper – towards adequate, sustainable and safe European pension systems*. SEC(2010) 830 final, COM(2010)365 final, Brussels, 2010.
http://ec.europa.eu/social/BlobServlet?docId=5551&langId=en

[80] Council Directive 2004/113/EC of 13 December 2004 implementing the principle of equal treatment between men and women in the access to and supply of goods and services (OJ L 373 of 21.12.2004).

treatment between men and women in access to and the supply of goods and services. This is the first directive addressing gender equality issues outside the field of employment. The preamble to this Directive recognises that discrimination based on sex, including harassment and sexual harassment, also takes place in areas outside the labour market. It can be equally damaging, acting as a barrier to the full and successful integration of men and women into economic and social life.

Directive 2004/113 applies to all persons who provide goods and services that are available to the public both in the public and private sectors, including public bodies, and which are offered outside the area of private and family life and the transactions carried out in this context (Article 3(1)). The Directive does not apply to the content of media and advertising, and education (Article 3(3)).

The principle of equal treatment means that there should be no direct or indirect discrimination based on sex, including less favourable treatment of women for reasons of pregnancy and maternity.

More favourable provisions for the protection of women as regards pregnancy and maternity are not contrary to the principle of equal treatment. The Directive further prohibits harassment and sexual harassment and an instruction to discriminate (Article 4). Positive action is allowed under Article 6 of the Directive.

However, the Directive allows various exceptions to the principle of equal treatment, even in cases of direct sex discrimination. Article 4(5) stipulates that the Directive will not preclude differences in treatment if providing the goods and services exclusively or primarily to members of one sex is justified by a legitimate aim and the means chosen to achieve that aim are appropriate and necessary. The Directive thus has no closed system of exceptions for direct discrimination as the other sex equality directives do and it therefore offers less protection against direct sex discrimination.

For pensions, the Directive contains specific provisions on actuarial factors in insurance contracts. Insurance contracts are often offered on different terms to men and women, both as regards the premiums and the benefits, in particular in private pension schemes. These differences are based on the fact that, on average, women live longer than men and that the insurance companies therefore run a higher financial risk in insuring women than in insuring men. Indeed, the Directive covers private/individual pension products and prohibits direct and indirect discrimination between women and men in their access to them. However, it contains an exception, relevant for pension policies. This enables Member States to permit proportionate differences in individuals' premiums and benefits where the use of sex is a determining factor in the assessment of risk, based on relevant and accurate actuarial and statistical data (Article 5)[81]. This exception was also questioned in the March 2011 ruling of the European Court of Justice (Test-Achats case) stating that insurers cannot discriminate on grounds of sex in setting premiums or determining benefits[82]. The ECJ has granted a transitional period of relief for implementation, so that it will be unlawful to use gender-related factors for determining premiums and benefits under insurance policies from 21 December 2012.

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[81] European Commission, *Green Paper – towards adequate, sustainable and safe European pension systems*. SEC(2010) 830 final, COM(2010)365 final, Brussels, 2010.

http://ec.europa.eu/social/BlobServlet?docId=5551&langId=en

[82] European Court of Justice Case C-236/09, Association Belge des Consommateurs Test-Achants ASBL ond Others v. Conseil des ministres, Judgment of 1 March 2011.

- **Directive 2006/54/EC[83] of the European Parliament and of the Council of 5 July 2006** on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (recast version).

In 2006, a new directive (the Recast Directive 2006/54) was adopted in which the existing provisions of different sex equality directives are brought together and some case law of the Court of Justice of the EU is incorporated. The aim of this so-called recasting is to clarify and bring together in a single text the main provisions on access to employment, including promotion, and to vocational training as well as working conditions, including pay and occupational social security schemes. The Recast Directive is divided into titles. The first title on general provisions includes a description of the aim of the Directive and sets out different concepts such as direct and indirect discrimination, harassment and sexual harassment. The second title includes provisions on equal pay, equal treatment in occupational and social security schemes and on equal treatment as regards access to employment, vocational training and promotion and working conditions. In the third title provisions are brought together on remedies and penalties, the burden of proof, victimisation, the promotion of equal treatment through equality bodies, social dialogue and dialogue with NGOs.

Directive 2006/54 on employment and occupation covers occupational pension schemes and sets out in detail the material scope of social security schemes. It comprises protection against the risks of sickness, invalidity, old age including early retirement, industrial accidents and occupational diseases, unemployment. Also occupational social security schemes which provide for other social benefits, in cash or in kind, and in particular survivors' benefits and family allowances, if these constitute a consideration paid by the employer to the worker through employment. Regarding that part, exclusions from the material scope were regulated in Article 8 of Directive 2006/54, which comprise: 1) individual contracts for self-employed persons, 2) single-member schemes for self-employed people, 3) insurance contracts to which the employer is not a party, in the case of workers, 4) optional occupational social security schemes offered to participants individually to guarantee them either additional benefits or a choice of date on which the normal benefits for self-employed persons will start, or a choice between several benefits, and 5) occupational social security schemes in so far as benefits are financed by contributions paid by workers on a voluntary basis.

Article 5 of the Recast Directive prohibits both direct and indirect sex discrimination in occupational social security in particular as regards:

(a) the scope of such schemes and the conditions of access to them;

(b) the obligation to contribute and the calculation of contributions;

(c) the calculation of benefits, including supplementary benefits due in respect of a spouse or dependants, and the conditions governing the duration and retention of entitlement to benefits.

Social benefits, and in particular survivors' benefits and family allowances, are covered if they are made to employed persons and thus constitute consideration paid by the employer to the worker through employment. The chapter applies, in addition, to pension schemes for

[83] Directive 2006/54/EC of the European Parliament and of the Council of 5 July 2006 on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (recast - OJ L 204 of 26.07.2006). It notably repeals Directive 86/378/EC (amended by Directive 96/97/EC) on occupational social security schemes (OJ L 225, 12.08.1986). It notably repeals Directive 86/378/EC (amended by Directive 96/97/EC) on occupational social security schemes (OJ L 225, 12.08.1986).

a particular category of worker such as public civil servants if the benefits are paid by reason of the employment relationship with the public employer (Article 7(2)).

Directive 86/378 prohibited both direct and indirect discrimination and gave various examples of provisions that were prohibited (Article 6), but it also contains important exceptions: the non-discrimination obligation did not apply to survivors' pensions, differences in the pensionable age and the use of different actuarial calculation factors. However, since the CJEU interpreted the concept of pay in Article 157 TFEU to include occupational social security schemes, the significance of these exceptions was consequently rather limited. Under the influence of the CJEU's case law, discrimination in relation to survivors' benefits and the pensionable age was no longer allowed.

Similarly, in relation to the use of gender-segregated actuarial factors the CJEU 'corrected' the Occupational Schemes Directive to a certain extent. The Recast Directive has now incorporated most of this case law and in Article 9 it provides examples of discrimination in this field. Determining different retirement ages in such schemes is prohibited in Article 9(1)(f). The same is true for suspending the acquisition of rights during maternity leave or leave for family reasons which are granted by law or agreement and are paid by the employer (Article 9(1)(g)).

4.1.2 Addressing gender pension gaps in the European Semester policy coordination cycle and the gender pension gap indicator

As shown in the previous section, women in all Member States have considerably lower average public pension benefits than men. The estimated gender pension gap (40.2% in 2014) is more than twice the gender pay gap (equal to 16%).

The main reason for the large gender pension gap[84] in average public pension benefits between men and women in Europe lies in the employment orientation of the European pension systems. Indeed, usually, individuals collect entitlements for their future public pension benefit when they are gainfully employed and pay contributions into the public pension system. The individuals' final pension benefit depends on the number of years employed, their average earnings and the age of retirement. Of course, there are differences among the Member States, but the design of most MSs pension formula is beneficial for those individuals that work continuously for more than 40 years and earn above average earnings.

However, most European women do not have such an employment history.

As discussed in Chapter 3, the reasons for discontinuous employment histories of women are manifold[85]. Women enter the labour market in jobs below their qualification levels. Women earn lower wages in comparable jobs in equal sized companies. Women are more likely to work in part-time or marginal part-time jobs, where they earn below average earnings. Women are more likely to interrupt employment when they give birth to a child and exit the labour market for the child rearing years while the children are small. And they are more affected by the problem of reconciling work and family duties than their male counterparts. In addition, generous social policies as well as joint income taxation set substantial disincentives that inhibit particularly married women from entering the labour market or encourage them to only work part-time.

[84] The gender gap in pensions is the percentage by which women's average pension is lower than men's; it measures by how much women are lagging behind men.

[85] European Commission, *The gender gap in pensions in the EU*, Brussels, 2013. http://ec.europa.eu/justice/gender-equality/files/documents/130530_pensions_en.pdf

Unfortunately all the above aspects struggle to be considered in the European Semester policy coordination cycle[86]. This is even if the inclusion of employment and social coordination mechanisms under the European Semester[87] has increased the attention of EU institutions to a wide range of social and employment policy issues.

Reforming the pension system has a central place in the policy process which takes place within the European Semester where respective annual growth surveys have played a significant role in setting out economic priorities.

Reforming pension systems includes:

- ensuring the effectiveness, adequacy and sustainability of pension systems, including aligning the retirement age with increasing life expectancy;
- restricting access to early retirement schemes;
- supporting longer working lives, equalising the pensionable age between men and women and supporting the development of complementary private savings to enhance retirement incomes.

In parallel, the emphasis is placed on reforming healthcare systems in line with increasing age-related expenditure.

Indeed, from the first European Semester[88] process in 2011, several Member States received country-specific recommendations (CSRs) on pensions. As described in Table C1 in annex C, over the semesters so far, there have been a broad range of pension-related CSRs agreed. Relatively frequent aspects included:

- increasing statutory pension ages to reflect changes in life expectancy and align with this for the future;
- equalising state pension ages for men and women;

[86] The European Semester was institutionalised by the 'six-pack' legislation of 2011 (Regulation 1175/2011), with the aim of coordinating and monitoring the economic and employment policies of EU Member States. The European Commission was given a mandate to check whether the Member States took action on the various reform commitments they entered upon at EU level. The six-pack comprises a set of European legislative measures to reform the stability and growth pact and introduces greater macroeconomic surveillance strengthening the procedures to reduce public deficits and address macroeconomic imbalances. The six-pack came into force on 13 December 2011, after a year's negotiations, to reinforce the stability and growth pact together with the two-pack (which became law in May 2013), and the Treaty on Stability, Coordination and Governance (which became law in January 2013 in its 25 signatory countries).

[87] Since spring 2011, the European Semester has combined within a single annual policy coordination cycle two interrelated but distinct governance and coordination mechanisms with different legal bases and sanctioning powers: the macroeconomic surveillance process within the framework of the stability and growth pact (SGP), the macroeconomic imbalances procedure (MIP), and the Fiscal Treaty, at one end; and the employment and social policy coordination processes bundled under the Europe 2020 strategy and the integrated economic and employment policy guidelines, at the other. The aim is to increase the EU coordination role in policy areas in which EU institutions lack legislative powers.

[88] The yearly cycle of economic policy coordination, where the Commission undertakes a detailed analysis of Member States' programmes of economic and structural reforms. It begins with the Commission's annual growth survey (AGS) in November and culminates in proposed CSRs, which are ultimately endorsed by Council in June each year. The European Parliament presents opinions on both the AGS and the CSRs and has also adopted its own initiative reports on the Semester.

- limiting early retirement and integrating special pension schemes into the mainstream;
- increasing the employability and participation of older workers, including lifelong learning and active ageing;
- promoting active labour markets including for older groups;
- encouraging private saving.

Pension reform issues account for 9.6% of the total CSRs in the 2012-2015 period[89]. Member States were issued with country-specific recommendations to continue ongoing pension reforms by linking pensions to life expectancy and/or aligning women's and men's pensionable age. However, **not one recommendation addressed the urgency of closing the gender pension gap**[90].

Moreover, **no specific macrosurveillance indicators are in place** for monitoring and evaluating the effects of policy reforms and initiatives on national pension systems in general, or on the gender pension gap in particular. Due to the high importance of the issue in all MSs, and the ever higher presence of elderly workers, elderly people and the increase in life expectancy, specific indicators for monitoring the sustainability of pension systems would be highly beneficial. The recent tendencies in Europe to strengthen the link between pension contributions and benefits make addressing the gender pay gap even more urgent. Because women are paid less, they contribute less to their pensions. Women's pension income is negatively influenced by the time spent out of the labour market to care for children and other dependent family members. They are also over-represented in part-time work and in low paid sectors of the economy. The gender pension gap mirrors the accumulation of all the gender inequalities that women face across their life cycle.

On 8 October 2015, the European Parliament issued a Resolution on the application of Directive 2006/54/EC on *the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation*[91].

The Resolution reiterates the need for clear harmonised definitions, for comparison at EU level, of terms such as gender pay gap, gender pension gap, remuneration, direct and indirect pay discrimination, and, especially, work treated as 'equal' and work of the same value. Moreover, it points out that the country-specific recommendations under the European Semester should include targets to reduce the gender pay and pension gaps, discrimination and the risk of poverty among elderly women, and to effectively implement equal treatment principles.

4.2 Measures taken by MSs to reduce the negative effects of motherhood on pensions

For more than a decade, the old-age pension systems in the EU Member States have been undergoing reform. The main aim is to adapt the pension system architecture to the altered

[89] For more details on this, please see Table C1 in Annex C, which includes all the pension-related CSRs in the period 2012-2015.

[90] European Parliament, *Study on mainstreaming employment and social indicators into macroeconomic surveillance*, Brussels, 2015.

http://www.europarl.europa.eu/RegData/etudes/STUD/2016/569985/IPOL_STU(2016)569985_EN.pdf

[91] http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2F%2FEP%2F%2FTEXT...

environment resulting from globalisation and make it more able to bear the strains of the countries' changing demographic trends.

However, the internalisation of a gender perspective within these reforms is very difficult to be found especially in a direct way. There are some approaches and initiatives in pension matters that have an indirect impact on the way women (especially those with caring responsibilities) and men are affected[92]. Among these approaches the following are the most significant:

- **Public minimum pension schemes not related to former employment** are particularly relevant for the adequacy of pension systems in supporting old-age income. They provide a safety net for low earners or those with no or limited employment histories, among whom women are over-represented. **Minimum pensions can be residence-based**. In this case everybody who has lived in the country for a certain amount of time is guaranteed a minimum pension income without the requirement of any former contributory payments. Women with a short or no employment record would benefit from such residence-based minimum pensions as is the case in Sweden and Finland. From a gender perspective, the residence-based minimum pensions of the Nordic countries appear more favourable to women, as they are not based on the individual employment history. With these schemes the risk of reducing incentives to work in the regular economy is however high, even if the countries with residence-based minimum pensions do not show this disincentive effect applying. The level of minimum benefits is also a relevant feature, being crucial to prevent poverty in old age, as is the benefits indexation system.
- **Redistributive elements in the pension formula** aim at weakening the link between contribution payments and benefits e.g. by using a 'few best years' rule for benefit calculation. Many countries such as Sweden had this in place before the pension reforms of the last decade. Thus, periods of low-wage employment or short employment records could be compensated. Another redistributive measure is to upgrade periods of low income to a certain amount which is the case in Belgium and was the case in Germany until 1992. Such measures especially benefit part-time workers.
- **Pension credits for care activities** constitute a recognition of unpaid work and reduce gender differences in pension income, as it is women that usually provide care services within households. They are granted as a compensation for income loss due to care periods or are credited as pensionable years. In recent years, as the emphasis on pension adequacy has increased many countries have taken better account of care credits, at least in statutory schemes. In occupational schemes childcare credits are not very common, even if in some countries with privately managed mandatory funded schemes the state provides for payment of contributions to these schemes during childcare. Other forms of care credits (for the elderly, the disabled or severely ill family members) are less widespread and have been introduced only very recently. The potential negative effects of care credits on women's labour market participation depend largely on the design of care credits: the negative effects are stronger when care credits are only available for women, and gender stereotypes in the division of care and market work are thus strengthened. Credits for childcare vary considerably among Member States. The periods of childcare beyond maternity leave range from

[92] For more details on this, please see Table C.2 in Annex C which provides specific information by Member States on adopted approaches.

only three months in Belgium to up to three years in Germany. Credits are either linked to previous individual earnings like in Italy or Finland, or they relate to an average reference value like in Germany or Austria. In many countries, credits for childcare are only provided if the carer is not employed during the childcare period. This might impact negatively on the working career of women since longer career interruptions lead to more difficulties in re-entering the labour market and to lower salaries. Thus, credits for childcare either compensate for a lack of contribution periods or for periods of part-time employment due to childcare responsibilities. Other care credits for the care of dependent adult family members are not yet particularly widespread in Europe. In general, those credits are linked to the average wage or the minimum wage or they are considered as contributory periods for a minimum pension guarantee.

- **Derived rights are particularly important for women and men without an employment history**. Most of the countries considered offer protection for widows (and widowers, even though this is a residual category due to the much higher life expectancy of women and the predominance in several EU countries of the male breadwinner model) and, to a lesser extent, divorcees, through contributory or non-contributory benefits. Entitlements are usually calculated as a percentage of the insured worker's rights. However, the high poverty rate of older women living alone suggests that survivors' pension schemes or pension benefits for divorcees are not entirely successful in providing old-age income security for this group. The most significant provision is the survivor benefit, which exists in almost all the MSs. Given that women's life expectancy is longer than men's and that husbands are often older than their spouses, recipients of survivor pensions are mainly women. Survivor pensions are, however, somewhat controversial as they represent a redistribution in favour of one-career couples: single men and women and two-earner couples subsidise one-career families. In addition, they often fail to protect single or divorced elderly women and encourage women to stay at home or work in the informal economy. As an increasing number of women work and earn their own pension entitlements, derived pension rights may become less important for the future.

Some specific examples of measures which can positively reduce the negative effects of motherhood on pensions are the following:

- AUSTRIA: Up to 4 years per child are credited as if earnings were equal to EUR 1,350 a month. In addition, 2 years per child can be used to meet the minimum contribution period for an old-age pension.
- BELGIUM: All employees working for at least 1 year for the same employer are eligible for the so-called time credit which can count up to 3 years of caring for children as productive employment. The value of the time credit is the caregiver's earnings before exit from the labour market.
- DENMARK: Periods spent outside the labour force providing unpaid care are automatically covered under the universal basic pension programme, which awards benefits based on years of residence.
- FRANCE: A parent caring for a child younger than age 16 for at least 9 years receives up to 2 years of coverage, whether he or she left the workforce or not during that time. In addition, a parent caring for a child younger than age 3, with earnings below a certain threshold (EUR 17,600, for the first child and more for subsequent children) is credited as if he or she had received the minimum wage. Finally, a parent who has raised 3 or more children for at least 9 years before the children reach age 16 receives

a 10 per cent increase in his or her old-age benefit at retirement. In the civil servants' schemes, women get a one-year length of insurance bonus for children born before 2004 if they stopped working for at least 2 years at birth. After negotiations with the social partners, the government decided to split the two year bonus into two different parts. The first part, which offers a one-year length of insurance bonus for every child, is exclusively reserved for women, because it is explicitly linked to delivery. The second part, which also grants a length of insurance bonus of one year, is to be divided between people (mother and father) who have actively taken part in the education of a child during the four years that followed its birth. Parents will have to decide about the allocation of the pension bonus in the six months following the 4th birthday of the child. Credit is awarded separately for birth (or adoption) and for education of the child.

- GERMANY: The parent who is mostly in charge of care giving is credited with the equivalent of 1 pension point (equal to the pension entitlement a person with exactly the average income of all insured persons receives for contributions in 1 year) annually for the first 3 years of his or her child's life. Additional credits of up to 1 pension point are provided to parents who continue to work while raising a child up to age 10. In addition, parents who do not work but provide care to 2 or more children under the age of 10 generally receive a bonus of 0.33 pension points.
- LUXEMBOURG: A parent caring for a child aged 4 or younger is credited with up to 2 'baby years' for one child or up to 4 for two children (or for a severely disabled child). Baby years are considered as periods of employment and are calculated based on the caregiver's income before childbirth or adoption. The credits can be granted to one parent or split between both parents.
- THE NETHERLANDS: Periods spent outside the labour force providing unpaid care are automatically covered in the basic old-age pension system, which awards benefits based on years of residence.
- NORWAY: Caregivers (including parents providing unpaid care to children younger than age 7 and individuals providing care to disabled, sick, or elderly persons in the home) are credited with 3 pension points.
- SWEDEN: A parent caring for a child aged 4 or younger is credited with the most favourable of the following: (1) earnings the year before childbirth or adoption; (2) 75 per cent of average earnings in Sweden; or (3) a fixed amount equal to one income base amount (52,100 kronor in 2011). In addition, a parent who has left the labour force to provide care for a disabled child can receive caregiver credits for up to 15 years.
- UNITED KINGDOM: Periods of care giving are covered under both pillars of the public pension system (basic state pension and state second pension). For the basic state pension, a parent or caregiver receives credit for each week in which he or she is (1) receiving a child benefit for at least one child younger than age 12; (2) an approved foster caregiver, or (3) providing at least 20 hours of care per week for anyone who is receiving an attendance allowance, disability living allowance or constant attendance allowance.

4.3 Concluding remarks

In order to contrast the gender pension gap, EU institutions have drafted several directives that formally stress the importance of approaching the pension systems granting equal

opportunities for all. However directives are not the only (and maybe the right) instrument to provide specific and concrete examples of the way equal opportunities should be granted in practice and how the way gender should be internalised within the design of the European pension systems. Within the European Semester policy coordination several recommendations have been given to the Member States to reform pension systems. Despite this, the analysis shows that no recommendations have been provided to ensure that gender is mainstreamed within these systems, apart from the equalisation of the retirement age between women and men. It has started to be commonly agreed that lower retirement ages are no longer beneficial for women, considering that fewer years in work lead to lower pensions. Therefore it is also true that equalising retirement ages should be coupled with measures to support the reconciliation of work and family lives for both women and men. Indeed, pension system norms need to change away from the pattern of 45 years' full-time work, towards a life course perspective that includes periods of caring by both men and women.

However, within this context, several Member States have started to introduce measures that (directly or indirectly) affect the life of women and men. For example, introducing a residence-based minimum pension not related to previous working life is fundamental and highly supportive to contrast employment inactivity. A strong attention to public mandatory system also indirectly is a tool to contrast gender pension gap since women tend to rely on the state more for their pensions (as opposed to occupational or private schemes). However, given the growing importance of second and third pension pillars, steps are needed to make them more women-friendly. Pension care credits are also essential and they should be increased and widespread among all Member States taking into account a gender perspective avoiding the strengthening of gender stereotyping in caring activities.

5 CONCLUSIONS AND POLICY RECOMMENDATIONS

5.1 Main results

Demographic trends and the financial and economic crisis have obliged European countries to accelerate the revision of their pension systems. Sustainability has been the major goal for pension reforms in recent years in Member States. However, the gravity and duration of the crisis has highlighted the risks associated with some features in pension reforms of increased poverty, especially for those population groups more distant from the labour market. These groups present low employment rates, interrupted working careers, short working hours, low pay and limited access to supplementary pension schemes.

The assessment of recent pension reforms in a gender perspective has shown that pension reforms may increase the gender pension gap, unless specific measures are implemented in Member States to support women's position in the labour market.

With contribution-based and multipillar pension systems, gender disparities in the labour market could produce even larger gender disparities in pension income than in the past. Low earners and those with interrupted careers (mainly women and atypical workers) will be much more reliant on means-tested or minimum pensions, with a risk of a resurgence of old-age poverty due to their lower pension incomes. Furthermore, greater female longevity exposes elderly women to higher poverty risks due to the longer expected period of time living alone, and the greater erosion of the real value of their annuities.

Another general effect of pension reforms is the increased individual responsibility for saving decisions and pension rights, which exposes the elderly to increasing individual risks, as shown by the effects of the financial crisis on private pension schemes.

In addition, with the new pensions systems, benefits are more closely related to developments in the labour and financial markets and to economic growth. The adequacy of new pension systems is thus jeopardised especially for the younger generations and women when:

- the labour market is unable to guarantee lifelong continuous employment;
- the financial markets are unable to deliver the expected returns on investments in pension funds;
- public spending is constrained by increasing deficit and debt, low growth prospects and fiscal consolidation.

The negative effects of the crisis will affect labour market entrants in particular and future pensioners who are experiencing long-term unemployment and/or reduced working hours.

The gender gap in current pensions is estimated to be 40% on average for the EU28. The gender gap in pensions is highest in Cyprus, Germany, the Netherlands and Austria, and lowest in the Baltic countries and some eastern European countries (Slovakia, Hungary and the Czech Republic). These are characterised by relatively low gender gaps in part-time employment as well as relatively generous old-age pensions and care credits for current pensioners, which have been however reduced with the recent reforms.

The gender gap in pensions reflects both lower pension coverage among women compared to men and lower benefits for women pensioners. Women with care responsibilities and women living alone are particularly exposed to low pension benefits and high poverty risks in old age.

5.2 Policy implications

The design of pension systems is very important for contrasting the gender pension gap. In order to improve women's pension entitlements and coverage the following aspects are to be considered:

- **Greater emphasis and resources need to be focused on poverty avoidance and the reduction of gender pension gaps**. Pension adequacy in protecting against poverty risks is, and will remain, necessary for those people who for a variety of reasons are or will be unable to achieve the necessary career length and contributions. These protections need to be carefully designed to avoid disincentives for those able to stay in employment. In achieving the sustainability and adequacy goals, the balance of transfers between different generations and the changing nature of labour markets and of family structures should be considered. The capacity to adapt to these changes needs to be improved without reducing pension coverage and fairness in pension entitlements between women and men and between generations. **Universal, residence-based or flat-rate minimum pensions** indexed to wages appear to be particularly favourable to gender equality, because the full basic pension is paid irrespective of the previous employment status and family conditions.
- **Access to occupational and individual supplementary pensions** by women and other groups usually less involved in these schemes has to be supported by public incentives. It is also necessary to make these schemes more women-friendly, with provisions supporting the introduction of unisex life tariffs and care credits, as well as derived benefits. **The growing individual responsibility for saving decisions** entailing different risks also means that individuals have to be clearly informed of the options available and the associated risks. Women especially have to be supported in improving their financial literacy level in order to be able to make informed decisions on an increasingly complex issue. The growing role of occupational and individual voluntary pensions schemes also calls for more stringent pension fund regulation for risk sharing. There should also be some form of protection against insolvency, to prevent the risks associated with financial crises from being disproportionally borne by individuals.
- **Appropriate pension credits for care periods** should be extended and made available also to men and for the care of other dependents besides children. Furthermore, care credits should allow (part-time) employment during care periods, be available also in private funded pension schemes, and extended to the self-employed, inactive and unemployed.
- **Unisex life tariffs should be adopted in both public and private funded pension schemes,** so that women can receive equal pension annuities for equal contributions, even if they are expected to live longer than men.
- **Pension systems should move towards a life course perspective** for both men and women envisaging pension credits for periods out of the labour market either due to caring, training or unemployment. **Flexible retirement provisions** and the possibility to combine pension and part-time work should also be considered, as well as measures to improve the employability of age 50+ women.
- **Individual rather than family-related pension entitlements** should be adopted, in order to reduce work disincentives and gender stereotypes, while allowing for accrued pension rights to be divided in a break-up. The focus on the individual stresses the women's role in the labour market rather than in the family (as wife or widow)

and implies taking maternity into consideration also outside marriage. The empirical evidence shows that the living conditions of elderly women, especially those living alone, are better where social benefits and public transfers are based on the situation of an individual, rather than the family, and where care services are available. For example, some of the provisions adopted by most of the Nordic countries appear to play a supportive role in the living conditions of elderly women: consideration of care years for pension entitlements both in public and compulsory private schemes, whatever the family status; residence-based minimum pensions, which also allow for the removal of derived pension rights with their many shortcomings; the extensive provision of social services that play a major role in enhancing the income of single households, especially for lone mothers and elderly women.

- **The effects of reforms on the capacity of pension systems to alleviate poverty in old age** should be taken into account. It should clearly indicate how reforms affect future costs and the relative entitlements for women and men with different family conditions and for different generations. When simulating the effects of pension reforms it is necessary to consider men and women with different wage levels and employment patterns, rather than focusing solely on average earners with full careers. One measure to orient public pension decisions is also to **include the gender gap in pensions indicator** among the European Semester headline indicators.

Pension policies alone cannot, however, reduce gender differences in pension income as they largely reflect gender differences in the labour market. Policies to reduce gender gaps in the **labour market and active ageing policies** are also needed to guarantee gender equality in future pensions. In particular, given the growing reliance on fuller careers to ensure sufficient pensions, complementary measures encouraging and, especially, enabling women to spend more years of their lives in employment will be crucial. The increasing privatisation of pension rights has also brought out the need to consider gender differences in the division of unpaid care work. Pension reforms need to be integrated with appropriate work-life balance policies promoting continuous participation in the labour market for women and reducing gender gaps in pay and occupational segregation.

European Institutions (namely the European Commission and the European Parliament) could play an increasing role in reducing gender disparities in pensions. This can be achieved by supporting a stronger integration of a gender equality perspective in pension and welfare policies, as well as a greater attention to pension adequacy and active ageing strategies both at the EU and national level.

In particular EU institutions could support:

- the inclusion of the *Gender gap in pension indicator* among the scoreboard indicators adopted for the European Semester surveillance process;
- the provision of information and advisory services;
- the development of guidelines and minimum standards from a gender perspective;
- the development of more disaggregated statistics and research to strengthen the monitoring and evaluation of the gender effects of pension reforms and active ageing policies;
- more accurate simulations of the potential effects of proposed reforms for women and men of different generations and family conditions.

The European Parliament Resolution of October 2015 relating to the application of Directive 2006/54/EC on *the implementation of the principle of equal opportunities and equal*

treatment of men and women in matters of employment and occupation is important. The Resolution reiterates the need for:

- clear harmonised definitions;
- comparison at EU level of terms such as gender pay gap, gender pension gap, direct and indirect pay discrimination;
- equal treatment for work of the same value.

Moreover, it points out that the country-specific recommendations under the European Semester should include targets to reduce the gender pay and pension gaps, discrimination and the risk of poverty among elderly women, and to effectively implement equal treatment principles.

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ANNEXES

Annex A – Additional tables and figures for chapter 2

Table A1: Pension schemes and projection coverage, EU28 and Member States

	Public pensions (1)					Private pension scheme		
Country	Minimum Pension(2)	Old-age pensions	Early retirement pensions	Disability pensions	Survivors' pensions	Occupational pension scheme	Mandatory private individual	Voluntary private individual
BE	MT - SA	ER	ER	ER priv FR self-emp	ER	M* priv V* self-emp	X	Yes*
BG	MT - SA	ER	ER	ER	ER	V*	Yes*	Yes*
CZ	FR ER	ER	ER	ER	ER	X	X	Yes*
DK	FR & MT suppl.	FR & MT suppl.	V	FR	FR	Quasi M	X	Yes*
DE	MT - SA	ER	ER	ER	ER	V*	X	Yes*
EE	MT - SA	ER	ER	ER	ER	M*	Yes*	Yes*
IE	MT - FR & SA	FR - ER	FR - ER/MT	FR - ER/MT	FR - ER/MT	M pub V* priv	X	Yes*
EL	MT - FR	FR & ER	FR & ER	FR & ER	FR & ER	X	X	Yes*
ES	MT	ER	ER	ER	ER	V	X	Yes
FR	MT - SA	ER	ER	ER	ER - MT	V*	X	Yes*
HR	ER	ER	ER	ER	ER	V*	M*	Yes*
IT	MT - SA	ER	ER	ER	ER	V*	X	Yes*
CY	MT & ER	ER	ER	ER	ER	M* - pub V* - priv	X	X
LV	FR - SA	ER	ER	ER	ER	X	Yes*	Yes*
LT	SA	ER	ER	ER	ER	X	quasi M	Yes*
LU	MT - SA	ER	ER	ER	ER	V*	X	Yes*
HU	MT - SA	ER	ER	ER	ER	V*	X	Yes*
MT	MT - SA	FR & ER	X	FR & ER	FR & ER	M*	X	Yes*
NL	SA	FR	X	ER	FR	M	X	Yes*
AT	MT - SA	ER	ER	ER	ER	M*	X	Yes*
PL	ER	ER	ER	ER	ER	V*	Yes*	Yes*
PT	MT - SA	ER	ER	ER	ER	M & V	X	Yes*
RO	SA	ER	ER	ER	ER	X	Yes	Yes

SI	X	ER	ER	ER	ER	V*	X	Yes*
SK	MT - SA	ER	ER	ER	ER	X	Yes*	Yes*
FI	MT	ER	ER	ER	ER	V*	X	Yes*
SE	MT	ER	ER	ER	ER	quasi-M	Yes	Yes
UK	FR & MT - SA	FR -ER, V	X	ER	ER	V*	X	Yes*

(1) Public pension expenditure include all public expenditure on pension and equivalent cash benefits granted for a long period, see Annex 2 for details on the coverage of the projections of public pension expenditure.
(2) Minimum pension corresponds to Minimum pension and other social allowances for older people not included elsewhere.
MT - Mean-tested ; FR - Flat rate; ER - Earnings-related; SA - Social allowance/assistance; V – Voluntary; M – Mandatory; X - Does not exist; * Not covered in the projection
Source: European Commission, *The 2015 Ageing report*, Table II.1.2 pg.58 http://europa.eu/epc/pdf/ageing_report_2015_en.pdf

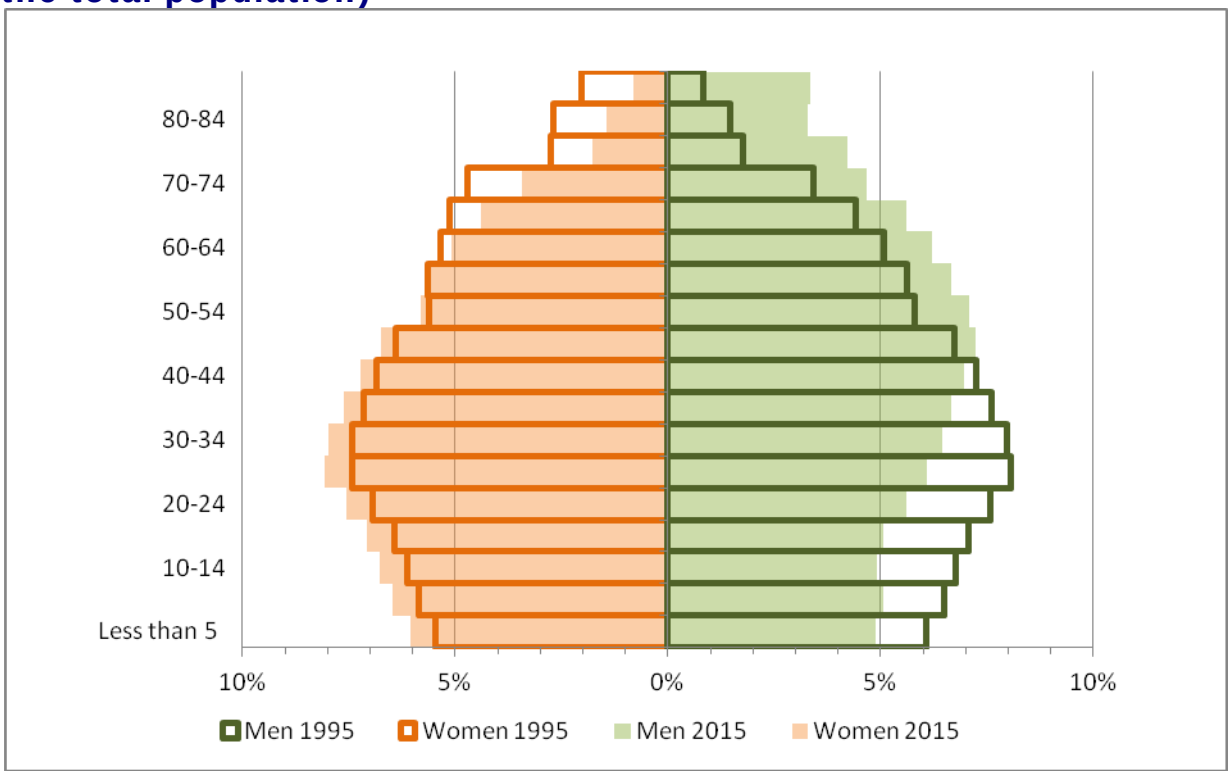
Table A2: Gender differences in life expectancy (2014), statutory retirement age (2015, 2020 and 2060) and incentives to postpone retirement, EU28 and Member States

Member State	1.LIFE EXPECTANCY AT AGE 65 (2014) (i)		2. STATUTORY RETIREMENT AGE (2015) (ii)		3. STATUTORY RETIREMENT AGE (2020) (iii)		4. STATUTORY RETIREMENT AGE (2060) (iii)		5. INCENTIVES (iii)	
	Men	Women	Men	Women	Men	Women	Men	Women	Penalty	Bonus
BE	18.4	21.9	65	65	65	65	65	65		X
BG	14.1	17.6	64y4m	61y4m	65	63	65	63		X
CZ	16.1	19.8	62y10m	58-62	63y10m	60y6m - 63y10m	68+	68+	X	X
DK	18.1	20.8	65	65	66	66	67+	67+		
DE	18.2	21.4	65y3m	65y3m	65y9m	65y9m	67	67	X	X
EE	15.2	20.4	63	62y6m	63y9m	63y9m	65	65	X	X
IE	18.4	21.1	66	66	66	66	66	66		
EL	18.8	21.6	67	67	67	67	67+	67+	X	
ES	19.3	23.5	65-65y1m	65-65y1m	65-65y10m	65-65y10m	65-67	65-67	X	X
FI			62-68	62-68						
FR	19.7	24	65	65	62-67	62-67	62-67	62-67	X	X
HR	15.5	19.1	65	61y3m	65	62y6m	65	65	X	X
IT	19.2	22.8	66y3m	63y9m(*)	67	67	69y9m	69y9m		
CY	18.9	21.4	65	65	65	65	65	65	X	
LV	13.8	19	62y6m	62y6m	63y9m	63y9m	65	65		
LT	14.3	19.5	63y2m	61y4m	64	63	65	65	X	X
LU	18.4	22.7	65	65	65	65	65	65		
HU	14.6	18.6	62y6m	62y6m	64y6m	64y6m	65	65		X
MT	18.6	21.7	62	62	63	63	65	65		
NL	18.6	21.4	65y3m	65y3m	66y8m	66y8m	67	67		

AT	18.5	21.8	65	60	65	60	65	65	X	X
PL	15.9	20.4	65y7m	60y7m	66y10m-67	61y10m-62	67	67		
PT	18.1	21.9	66	66	66.4 (55)	66.4 (55)	68.8 (55)	68.8 (55)	X	X
RO	14.7	18.1	65	60	65 (60)	61.4 (56.4)	65 (60)	63 (58)		
SK	15.1	19.1	62	58y3m-62	62.8 (60.8)	62.8 (60.8)	67.8 (65.8)	67.8 (65.8)	X	X
SI	17.7	21.6	64y4m	64y4m	65 (60)	65 (60)	65 (60)	65 (60)	X	X
SE	18.9	21.6	61-67	61-67	67 (61)	67 (61)	67 (61)	67 (61)		
UK	18.8	21.3	65	62y4m	66 (66)	66 (66)	68 (68)	68 (68)		X

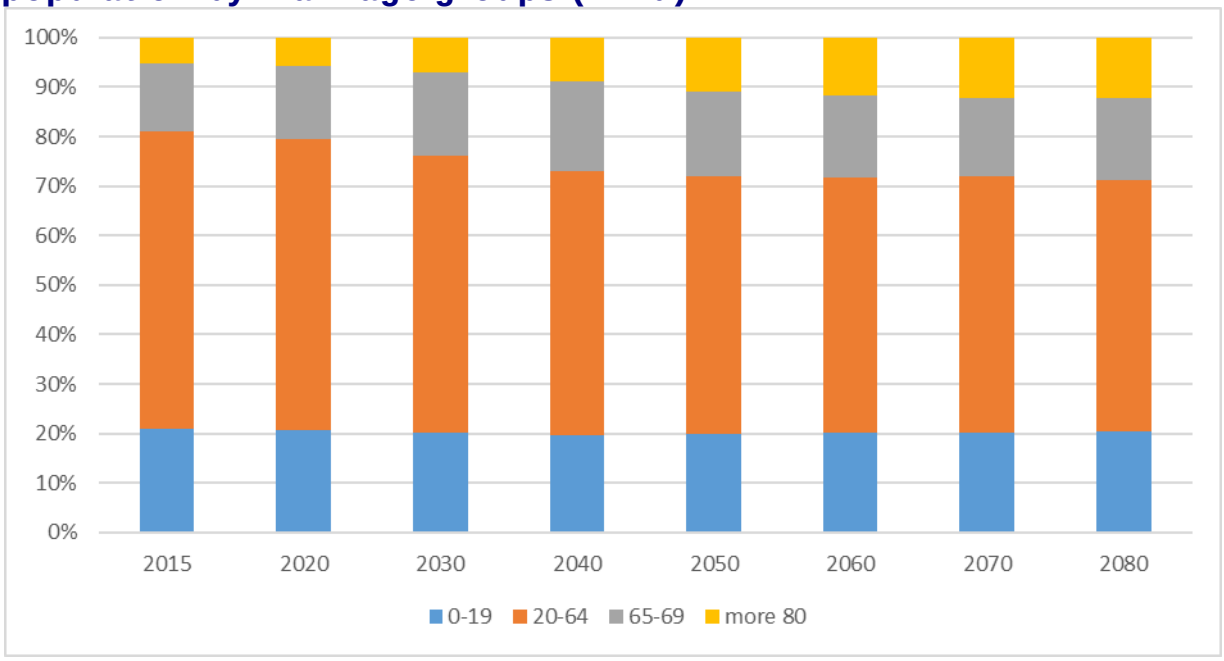
Source: Column (i):*Eurostat, codes demo_mlexpec, proj_13nalexp and proj_13nalexphlv*; column(ii) https://en.wikipedia.org/wiki/Retirement_age; columns iii: European Commission, *The 2015 ageing report*, Table II.1.4 p. 65 http://europa.eu/epc/pdf/ageing_report_2015_en.pdf; (*) private sector.

Figure A1 Population pyramids by sex, EU-28, 1995 and 2015 (% of the total population)



Data Source: Eurostat Population on 1 January by five years age group and sex [demo_pjangroup]. We consider EU-27 instead of EU-28 due to lack of data for 1995. Data for 2015 are provisional for some countries.

Figure A2 Projections of changes in the structure of the EU28 population by main age groups (in %)



Source: Eurostat, EUROPOP2013.

Annex B –The SHARE and EU-SILC data base and additional tables and figures for chapter 3

The Survey of Health, Ageing and Retirement in Europe (SHARE) and EU-SILC data bases

The **Survey of Health, Ageing and Retirement in Europe** (**SHARE**) is a multidisciplinary and cross-national panel database of microdata on health, socioeconomic status and social and family networks of approximately 123,000 individuals (more than 293,000 interviews) from 20 European countries (plus Israel) aged 50 or older.

The SHARE data collection has been primarily funded by the European Commission through the FP5 (QLK6-CT-2001-00360), FP6 (SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARELIFE: CIT4-CT-2006-028812) and FP7 (SHARE-PREP: N°211909, SHARE-LEAP: N°227822, SHARE M4: N°261982). Additional funding from the German Ministry of Education and Research, the U.S. National Institute on Aging (U01_AG09740-13S2, P01_AG005842, P01_AG08291, P30_AG12815, R21_AG025169, Y1_AG4553-01, IAG_BSR06-11, OGHA_04-064) and from various other national funding sources.

The data has been collected in 5 different waves: Wave 1 was collected in 2004, Wave 2 in 2006/07, the third Wave, called SHARELIFE, was collected in 2008/09, the fourth Wave in 2011/12, and the fifth and last Wave in 2013.

The data are available to the scientific community free of charge at www.share-project.org after registration. SHARE is harmonised with the US Health and Retirement Study (HRS) and the English Longitudinal Study of Ageing (ELSA). SHARE's scientific power is based on its panel design that grasps the dynamic character of the ageing process, its multidisciplinary approach that delivers the full picture of individual and societal ageing, and its cross-nationally ex-ante harmonised design that permits international comparisons of health, economic and social outcomes.

SHARE applies a concept of ex-ante harmonisation: there is one common generic questionnaire that is translated into the 27 national languages (in some countries more than one language is used) using an internet based translation tool and processed automatically in a common CAPI instrument.

EU-SILC (**EU statistics on income and living conditions)**, is the reference source for comparative statistics on income distribution and social inclusion in the European Union (EU).

EU-SILC provides two types of annual data for the 28 European Union countries, Iceland, Norway, Switzerland and Turkey:

- cross-sectional data pertaining to a given time or a certain time period with variables on income, poverty, social exclusion and other living conditions;
- longitudinal data pertaining to individual-level changes over time, observed periodically over a four-year period.

EU-SILC focuses mainly on income data, mostly personal income, although a few household income components are included. Information on social exclusion, housing conditions, labour, education and health information is also obtained.

The reference population in EU-SILC includes all private households and their current members residing in the territory of the countries at the time of data collection. All household

members are surveyed, but only those aged 16 and more are interviewed. The minimum size of the sample of the overall population which is surveyed every year is of: i) for Cross-sectional purposes about 130,000 households and 270,000 persons aged 16 and more are interviewed in the European Union countries; ii) for longitudinal data operations about 100,000 households and 200,000 persons aged 16 and more are interviewed in the European Union countries.

Additional tables and figures for chapter 3

Table B1: Gender Gap in Pensions (%) of persons aged 65-74, EU28, Member States, 2008-2014

MS	2008	2009	2010	2011	2012	2013	2014
EU-27	40.1	40.8	40.7	40.6	40.2	40.7	40.2
EU-28						40.7	40.2
AT	35	38.5	37.4	42.9	41.8	41.4	41.9
BE	30.4	31.1	29.2	27	27	33.6	30.2
BG	26.4	29.9	33.1	31.2	36.2	29.9	23.7
CY	44.2	42	42	42	37.7	47.7	48.8
CZ	11.3	11.2	13.8	14.8	14.3	13.2	13.4
DE	43	45.6	43.8	44	44.6	47.4	46.5
DK	20	22	18.8	9.3	6.5	13	16.3
EE	2.4	2.7	3.1	0.8	3.6	3.3	3.7
EL	39	38.5	38.3	31.1	22.6	25.1	26.6
ES	33	34.1	33	34.3	33.2	37.1	36.1
FI	24.4	24.5	26.3	25.7	26.1	24	24.3
FR	39.5	38.1	39.2	37.3	37.6	35.5	35.4
HR				24.8	24.2	23.3	20.4
HU	13.7	15.3	14.8	15.7	15.3	14.8	13.2
IE	33.7	36.7	38.6	41	41	35.5	
IT	35.9	36.3	35.2	36.7	35.7	38.5	38
LT	16.2	17.5	13.8	10.6	12.1	16.4	15.4
LU	45.8	49.4	49.9	49.6	45.5	45.1	40
LV	14.9	9.4	9.8	13.9	15.7	17.1	18
MT	19.6	18.6	21.7	18.8	18.5	25.3	25.6
NL	41.3	44.1	44.5	45.2	46	46.4	46
PL	22.1	21.7	22.8	23.9	24.3	22.6	23.4
PT	36.3	36.6	34.1	33.5	34.5	32.2	32.9
RO	30.3	29.4	30.1	28.1	28.9	28.1	35.3
SE	31.6	32.4	33.9	32.5	31.1	27.5	30
SI	28.7	26.2	26.3	25.9	22.3	20.5	17.4
SK	12.3	10.3	8.7	17.9	8.9	7	8.3
UK	44.4	44.3	44.8	44.2	42.3	38.7	39.5

Source: European Commission, Report on equality between women and men 2015, Annex 1 - Gender gap in pensions (%) of persons aged 65-74
http://ec.europa.eu/justice/gender-equality/files/annual_reports/160422_annual_report_en.pd.f Data Source: Eurostat. EU-SILC.

Table B2: Progress/Deterioration of Gender gap in pensions among younger and older cohorts, by changes in women and men incomes, EU28 and Member States, 2012

Progress/Deterioration in GGP	MS	Women's income from pensions	Men's income from pensions
Smaller GGP for younger cohort	EL	Increase for younger cohort	Increase for younger cohort
	FR, HR	Increase for younger cohort	Approximately the same
	SI	Increase for younger cohort	Decrease for younger cohort
	DE, EE, LT	Decrease for younger cohort	Decrease for younger cohort
Little or no change in GGP	BG, CZ, DK, HU, RO, FI, SE, UK		
Larger GGP for younger cohort	IE, CY, ES, LV, PT	Increase for younger cohort	Increase for younger cohort
	LU, NL	Decrease for younger cohort	Increase for younger cohort
	BE, IT, AT, SK	Approximately the same	Increase for younger cohort
	PL	Decrease for younger cohort	Approximately the same
	MT	Decrease for younger cohort	Decrease for younger cohort

Source: Bettio et al. (2015), p. 22. Data source: EIGE's calculation based on EU-SILC micro data, 2012.

Table B3: Gender gap in pension coverage (percentage points), 65-74 years old, EU28 and Member States, 2008-2014

MS	2008	2009	2010	2011	2012	2013	2014
EU-27	6.6	6.3	6.5	7.2	6.8	6.5	6.2
EU-28						6.5	6.2
AT	15.3	14.1	14.7	13.3	12.1	9.7	11.1
BE	23.5	22.5	19.1	18.8	18.8	18.2	18.8
BG	0.1	-0.5	-0.9	-1.1	0.2	0.1	0.2
CY	-0.5	-0.7	-0.4	-1.4	-0.7	-0.3	1.1
CZ	-1	-1.7	-1.6	-0.1	-0.7	0	0.2
DE	4.7	4	3.5	4	3.9	3.7	2.6
DK	-0.8	-1.2	0.2	-0.5	-0.1	0	0.1
EE	0.2	0	0	0.1	0	-0.3	-0.6
EL	17.2	16.4	16.3	17.6	12.3	15	17
ES	30.1	31.3	30.4	32.2	27.7	25.3	26.3
FI	0.5	0	0	0	-0.7	-0.8	-0.1
FR	2.6	1.9	3	2.6	2.1	1.1	1.9
HR	1.4	-0.8	-0.9	-2.9			
HU	0.8	0.7	0.4	0.5	0.3	0.5	0.3
IE	17.9	21.1	18.1	18.5	18.5	18.9	
IT	10.3	8.9	10.5	14.1	15.4	15.9	14.8
LT	0.1	-0.6	-0.7	-1.6	-1.4	-1	-0.7

LU	3.3	3.8	1.9	1.9	3.6	8.5	8
LV	-1.4	-1.4	-1	-0.6	-0.6	-0.6	0
MT	36.1	34.9	34.7	36.4	36.5	39.8	36.3
NL	-0.2	-0.5	-0.7	-0.2	-0.2	0.1	0.5
PL	1.8	1.2	0.8	1.3	1.4	1.2	0.1
PT	0.5	1.6	1.7	3.4	4.2	6.9	6.4
RO	6.6	5.5	8.1	7	6.9	4.4	4.2
SE	-1.1	0	-0.1	-0.4	-0.1	0.1	0.1
SI	-8.4	-9.3	-7.7	-8.9	-7.6	-6.7	-6.6
SK	0.7	0.4	-0.5	-0.1	-0.1	-0.2	-0.8
UK	0.3	-0.1	0.1	0	-0.1	0	0

Source: European Commission, Report on equality between women and men 2015, Annex 1 - Gender gap in pension coverage (percentage points), 65-74 years old
http://ec.europa.eu/justice/gender-equality/files/annual_reports/160422_annual_report_en.pdf
Data Source: Eurostat, EU-SILC. Notes: 2013 data for IE

Table B4: Main reason for economically inactive persons (50–69) who receive a pension to stop working in the EU28, by sex (%), 2012

	Total	Women	Men
Had reached eligibility for a pension	37	37.6	36.5
Own health or disability	21	20.2	21.6
Had reached the maximum retirement age	9.8	10.3	9.2
Lost job and/or could not find a job	7.5	7.4	7.6
Favourable financial arrangements to leave	7.2	5.3	9.1
Other job-related reasons	4	3.6	4.5
Family or care-related reasons	3.9	6.2	1.8
Other reasons	5.3	5.5	5
No answer	4.3	3.9	4.7

Source: Eurostat [lfso_12reasnot]

Table B5: Average number of usual weekly hours of work of employed people (15+), by sex (hours), EU28 and Member States, 2015

GEO / SEX	Total	Males	Females
EU28	37.1	40.1	33.6
BE	37.1	40.5	33.2
BG	40.8	41.2	40.4
CZ	40.5	41.9	38.6
DK	33.5	35.6	31
DE	35.2	39.3	30.4
EE	38.6	40	37.2
IE	35.9	39.7	31.5
EL	42.2	44.3	39.2
ES	37.8	40.5	34.6
FR	37.2	40	34.3
HR	39.5	40.3	38.6
IT	37	40.1	32.8
CY	39.5	41.5	37.5
LV	39	40	38.1

LT	38.3	39.1	37.6
LU	37.4	40.3	33.8
HU	39.8	40.5	39
MT	38.4	40.8	34.5
NL	30.1	34.9	24.5
AT	36.6	40.7	31.9
PL	40.7	42.4	38.7
PT	39.4	40.8	38
RO	39.8	40.2	39.2
SI	39.3	40.3	38
SK	40.2	41.2	38.9
FI	36.8	38.7	34.9
SE	36.3	38.1	34.5
UK	36.7	41	31.8

Source: Eurostat [lfsa_ewhuis]. The average includes part-time and full-time

Table B6: Duration of working life, EU28, by sex, EU28 and Member States, 2014

GEO / SEX	Total	Men	Women
EU28	35.3	37.8	32.7
BE	32.6	34.7	30.4
BG	32	33.3	30.7
CZ	34.9	38.1	31.6
DK	39	40.6	37.4
DE	38	40.2	35.6
EE	36.4	37.3	35.3
IE	34.7	38.6	30.6
EL	32.1	35.7	28.3
ES	34.8	37.1	32.3
FR	34.8	36.5	32.9
HR	32.3	34.2	30.3
IT	30.7	35.2	25.9
CY	36.8	40	33.4
LV	34.6	35	34.2
LT	34.8	34.7	34.8
LU	33.3	36.2	30.2
HU	31.8	34.2	29.4
MT	33	39.7	26
NL	39.6	42.4	36.7
AT	36.6	38.7	34.4
PL	32.6	35.1	29.9
PT	36.7	38.3	35
RO	32.8	35.7	29.7
SI	34.2	35.6	32.7
SK	33.2	35.9	30.3
FI	37.4	37.9	36.9
SE	41.1	42.3	39.8
UK	38.5	41.1	35.7

Source: Eurostat. LFS [lfsi_dwl_a]. Notes: (DWL) measures the number of years a person aged 15 is expected to be active in the labour market throughout his/her life

Table B7: Part-time employment as percentage of the total employment, by sex and age, EU28 and Member States, 2015

AGE	From 15 to 74		From 15 to 24 years		From 25 to 49 years		From 50 to 74 years		75 years or over	
GEO/SEX	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
EU28	9.8	32.6	24.9	40.6	6.7	30	11.9	35.9	66.6	76.4
BE	9.9	41.6	16.1	40.8	6.4	37.8	16.1	50.7	68.7	:
BG	2	2.8	4.7	7.4	1.6	2	2.4	3.7	:	:
CZ	3	10.2	6.9	16.6	1.3	8.7	5.9	12.4	68.5	83.9
DK	16.8	35.2	56.9	77.2	8.6	26.2	13.4	30.2	:	:
DE	10.7	47.3	18.6	29.3	7.8	46.8	13.2	52.9	75.6	86.4
EE	6.6	15.2	14.8	32.6	4.2	12.6	9.4	15.8	:	:
IE	12.8	34.4	38.2	51.4	9.4	29.1	13.6	42.9	43.4	:
EL	6.7	13.1	19.3	28.3	6.7	12.7	5	12.1	36.5	:
ES	7.9	25.2	30.4	46.5	7.7	25	5	21.9	45.3	:
FR	8	30.3	15.5	35.5	5.8	28.3	10.5	33.3	73	63.9
HR	5.5	8.2	10	15.5	3.6	6.4	8.7	11.3	:	64.7
IT	8.4	32.5	21	43.1	7.9	34.6	7.7	26.9	40	41
CY	10.9	16.3	19.6	30.9	8.9	13.3	13.7	20.4	:	:
LV	4.9	10.8	8.8	16.6	3.4	8.7	6.9	13	:	:
LT	5.9	10.5	9.3	14.1	4.1	7.9	8.5	13.9	:	:
LU	6	34.3	20.8	38	3.9	30.2	7.9	47.5	:	:
HU	4.4	8.1	6.4	7.5	3.1	6.4	7.1	12	:	:
MT	7.7	27.8	21.2	25	3.2	26.8	12	33.8	:	:
NL	28	77.1	72.8	87.2	17	72.2	26.9	80.9	83.5	82.1
AT	10.8	47.3	15.8	30.4	8.9	50	12.9	48.8	81.7	87.1
PL	4.7	10.5	10.7	19.3	2.7	8.4	7.8	13.6	65.6	71.5
PT	9.3	13.9	16.7	29.6	5	9.5	16	20.4	73.3	73.5
RO	9.4	10.6	19.7	18.4	6.7	6.7	13.8	19	:	:
SI	7.6	14.3	31.4	53.4	4.4	10.3	9.7	14.6	54.3	65.6
SK	4.2	8.3	7.9	18.4	3.2	7.1	5.8	9	:	:
FI	11.5	19.8	33.4	49	6	15	14.9	17.7	:	:
SE	15.5	37.5	37.2	61	9.8	32.7	18.5	37.6	:	:
UK	12.8	42.1	30.3	45.9	6.8	38.5	17.4	47.3	71.4	82.2

Source: Eurostat.

Table B8: Difference (p.p.) in employment rate of women and men (25-49), by number of children, EU28 and Member States, 2015

GEO/N_CHILD	No children	1 child	2 children	3 children or more
EU28	-1.7	-14.7	-19.8	-30.5
BE	0.6	-10.1	-11.7	-24.0
BG	1.7	-10.6	-15.2	-14.0
CZ	-1.2	-22.7	-26.0	-36.8
DK	-2.3	-14.0	-9.5	-13.2
DE	0.7	-14.2	-20.0	-34.9
EE	0.4	-14.2	-23.2	-26.1
IE	4.8	-12.8	-21.9	-29.4
EL	-9.9	-21.3	-29.7	-32.0
ES	-1.5	-14.1	-20.5	-25.0
FR	1.9	-8.2	-13.3	-28.6
HR	-1.4	-9.9	-10.1	-18.6

IT	-9.6	-23.7	-32.1	-41.5
CY	3.0	-10.1	-11.6	-24.3
LV	3.9	-9.1	-13.8	-24.8
LT	6.6	-5.3	-5.5	-23.1
LU	-6.6	-12.8	-16.0	-23.2
HU	-0.6	-19.1	-22.6	-40.1
MT	-9.6	-29.5	-36.2	-45.7
NL	-2.6	-15.6	-14.8	-22.9
AT	0.9	-9.4	-13.9	-24.6
PL	1.5	-13.5	-20.5	-29.4
PT	1.4	-8.0	-10.4	-17.4
RO	-8.5	-16.4	-21.4	-31.7
SI	-5.2	-10.0	-10.9	-10.1
SK	-0.7	-20.8	-26.1	-32.3
FI	2.5	-14.6	-11.9	-25.1
SE	-2.1	-10.2	-8.9	-11.3
UK	-0.1	-14.2	-20.1	-37.0

Source: Eurostat

Table B9: Difference in part-time employment % between women and men (25-49). by number of children, EU28 and Member States, 2015

GEO / N_CHILD	No children	1	2	+3
EU28	11.6	26.1	34.1	38.7
AT	18.5	50.9	67.7	70.3
BE	18	33.2	40	46.8
BG	0.4	:	:	:
CY	1.1	5.5	7.2	9.2
CZ	3.4	8.5	9.5	14.1
DE	16.1	53.8	68.9	70.9
DK	14.1	18.8	20.3	21.9
EE	4.1	10.8	11	:
EL	4.6	6.9	6.5	13.1
ES	11.2	22.4	23.6	20.1
FL	3.9	9	10.8	:
FR	11.2	20.5	30.1	39.2
HR	2.2	3	3.6	3.1
HU	0.6	4.2	5.8	11.3
IE	4.6	21.4	29	37.8
IT	18.1	30	36.2	36.6
LT	2.8	:	:	:
LU	13.7	31.1	37.9	:
LV	4.6	5.1	5.8	:
MT	7.6	29.7	:	:
NL	32	64.3	73.6	75.9
PL	3.1	5.3	7.6	10.6
PT	2.6	5.9	5.3	:
RO	-1.9	0.7	1	7.4
SE	18	20.4	25.7	31.5
SI	5.2	6.5	6.2	9.4
SK	2	4.3	5.4	8.5
UK	9.2	37.1	51.6	54.2

Source: Eurostat

Table B10: Care credits arrangements in Member States, EU28

	Credits for childcare	Credits for family / elder care
AT	Child-raising periods (maximum of 4 years per child, 5 years for multiple births). Periods in which maternity benefit is received (periods of maternity leave).	None
BE	Maternity	none
BG	Leaves for raising a young child, for pregnancy and childbirth. Period during which a non-working mother has raised a child up to 3 years of age.	Period during which a parent (adoptive parent) or spouse has taken care of a person with reduced working capacity/ degree of disability of at least 90% and in need of permanent assistance.
HR	Periods of absence from work for looking after a child	Periods of looking after an adult in need for person with status of carer
CY	Maternity, parental leave. Child-raising of up to 156 weeks per child granted to women entitled to a pension after 31 December 1992, who failed to make contributions because they were raising children aged up to 12 years.	None
CZ	Caring for a child up to the age of 4 years (10 years if the child suffers from a long-term severe disability that requires special care).	Caring for a disabled person
DK	None	None
EE	Raising a child for at least up to 8 years of age.	None
FI	Periods of earnings-related maternity, paternity and parental allowance. Periods of child home care	None
FR	Periods during which is drawn maternity. Maternity credit": 1 year per child for the insured mother. Credit of max. 2 years insurance to take care of a Parental leave within a limit of 3 years.	None
DE	Periods of child-raising up to the age of 10 years.	None
EL	Periods of absence from work for looking after a child.	Caring for a child, spouse or sibling with disability
HU	Periods of entitlement to Infant Care Allowance, child care fee, child home care allowance and child-raising support. For 40 years' eligibility period for women: periods of receipt of Infant Care Allowance, child care fee, child home care allowance, child-raising support or nursing fee for a severely disabled child.	None

IE	Persons aged 16 to 66 years while in receipt of cash benefits for maternity. Periods of up to 20 years spent by an insured person caring for children under 12 years.	Periods of up to 20 years spent by an insured person providing care to incapacitated persons.
IT	Periods of deemed contributions accrued while in receipt of maternity, . Periods of absence from work for looking after a child. Exception: deemed contributions are not taken into account if the pension is claimed at the age of 70 using the minimum qualifying period of 5 years.	Periods of absence from work for looking after an adult in need of care are treated as contributory.
LV	Child care periods for a child under 1.5 years of age. Period of receipt of Maternity Benefit and Paternity Benefit, of child care benefit for adoptee, of Disabled child care allowance. Child care by the mother until the child reached 8 years of age,	None
LT	Non-contributory periods taken into consideration as credited periods: maternity (looking after a child) These periods are taken into account for both determining the qualifying period for a pension and for the calculation of the amount of the pension.	none
LU	Periods for the rearing of children under the age of 6	periods during which a dependent person was cared for
MT	Periods of child-raising for parents born on or after 1st January 1962 when child is less than 6 years old (10 years if child is disabled).	Carers
PL	Periods of absence from work for looking after a child, Child-minding Allowance from 1/01/1999.	None
PT	Periods of maternity, periods spent caring for the children. Childcare leave is only considered for the pension constitution rates only after having exhausted the parental leave.	None
RO	Periods of short-term benefit payment from 1 January 2006 onwards for Leave to Rise a Disabled Child up to 3 years of age	None
SK	Periods of receiving Maternity Benefit. Periods of caring for children up to the age of 6 years. Periods of caring for a long-term severely disabled child up to the age of 18 years	Periods of caring for an adult person or periods of providing personal assistance for at least 140 hours monthly
SI	None	None
ES	First three years of parental leave to bring up a child,	The first year of leave to take care of other relatives who, on account of age,

	In case of birth, a total of 112 full contribution days are calculated for each single child and 14 additional days for each child after the second, inclusive, in the event of a multiple birth, in case the woman was not working during that period. In case of termination of employment or termination of unemployment benefits occurring between nine months before the birth of a child or three months before permanent adoption or foster care, and the end of the sixth year after birth/adoption/foster care, is considered as contribution a period is 164 days (as for 2015) per child or minor adopted or fostered, and will increase annually up to 270 days per child in 2019.	disease or incapacity, require constant assistance to carry out the most essential daily activities.
SE	Periods of child care in the case of parents of small children	None
NL	none	None
UK	Periods spent at home caring for children (not reduced below 20 years of contribution - 1978 Home Responsability Protection) (before 6 april 2010) Periods of receipt of Child Benefit for a child under age 12 (after 6 april 2010). Periods of receipt of Carer's Allowance and Maternity Pay.	Periods spent at home caring for sick or disabled person (not reduced below 20 years of contribution - 1978 Home Responsability Protection). (before 6 april 2010) Periods of receipt of Carer's Allowance. Certain carers can be credited with contributions for periods when they cannot work (under the State Second Pension).

Source: Missoc comparative tables: 1 July 2015

Table B11: Old-age pension beneficiaries as a share of the population by sex, Member States, 2013

GEO / SEX	Total	Males	Females
BE	0.16	0.18	0.14
BG	0.25	0.21	0.28
CZ	0.23	0.18	0.28
DK	0.21	0.19	0.23
DE	0.23	0.21	0.25
EE	0.23	0.17	0.28
IE	0.12	0.15	0.10
EL	:	:	:
ES	0.13	0.16	0.10
FR	0.24	0.24	0.24
HR	0.15	0.15	0.15
IT	0.22	0.23	0.21
CY	0.12	0.15	0.09
LV	0.24	0.19	0.29
LT	0.25	0.18	0.30
LU	0.20	0.28	0.12
HU	0.21	0.17	0.24
MT	0.14	0.20	0.09
NL	0.19	0.18	0.21
AT	0.22	0.21	0.22
PL	:	:	:
PT	0.22	0.22	0.22
RO	0.21	0.18	0.23
SI	0.24	0.24	0.24
SK	0.19	0.15	0.23
FI	0.23	0.20	0.25
SE	0.23	0.21	0.24
UK	0.21	0.17	0.24

Data Source: Eurostat Notes: The share is computed as total old age beneficiaries (pensions beneficiaries at 31st December) over total population (Population on 1 January)No data for EU average. EL and PL in 2013

Table B12: Gender gap in coverage by pillar in some EU countries- SHARE data wave 2006 / 2007

	PILLAR 1			PILLAR2			PILLAR3		
	MEN	WOMEN	W - M	MEN	WOMEN	W - M	MEN	WOMEN	W - M
DE	93.8%	89.0%	-4.8%	31.1%	13.7%	-17.4%	4.4%	3,7%	-0.7%
NL	94.1%	94.8%	0.7%	78.5%	47.6%	-30.9%	10.7%	5.9%	-4.8%
FR	96.1%	91.9%	-4.2%	3.6%	0.8%	-2.8%	4.9%	3.2%	-1.7%
EL	81.8%	72.4%	-9.4%	9.4%	6.5%	-2.9%	0.1%	0.1%	0.0%
AT	97.5%	87.6%	-9.9%	12.1%	4.9%	-7.2%	1.3%	4.4%	3.1%
ES	89.4%	61.5%	-27.9%	4.7%	1.6%	-3.1%	1.0%	1.3%	0.3%
SE	93.5%	94.5%	1.0%	64.5%	59.7%	-4.8%	20.2%	14.8%	-5.4%
IT	89.1%	82.5%	-6.6%	6.2%	3,7%	-2,5%	0.3%	0.1%	-0,2%
BE	97.0%	77.6%	-19.4%	7,5%	2.3%	-5.2%	2,1%	1.0%	-1,1%
PL	96.0%	94.6%	-1.4%	0.0%	0.0%	0.0%	1,9%	1,9%	0.0%
DK	96.0%	96.9%	0,9%	23.3%	15.6%	-7.7%	21.5%	13.1%	-8.4%
CZ	95.1%	98.4%	3,3%	3.4%	5.8%	2,4%	1,5%	1.0%	-0.5%

Source: estimations based on SHARE data Waves 2 (*10.6103/SHARE.w3.500*, see Börsch-Supan et al. (2013) for methodological details. The new release 5.0.0 of waves 1 to 5 comprises the latest state of data cleaning,

harmonisation across waves as well as updates, innovations, and consistency checks have been conducted based on information from all five waves. This way, a number of previously unreleased interviews have been added to the survey. These interviews have been held back in order not to release unchecked (and potentially erroneous) data.

Table B13: Average age at which people first received an old-age pension, EU28 and Member States, 2012

MS	Total	Males	Females
EU-28	59.1	59.4	58.8
BE	60.8	60.9	60.6
BG	57.5	58.1	57.0
CZ	58.9	60.8	57.7
DK	62.0	62.2	61.7
DE	61.1	61.2	61.0
EE	59.5	60.7	58.7
IE	60.9	60.9	60.8
EL	57.8	58.0	57.5
ES	61.8	61.7	61.9
FR	58.9	58.6	59.3
HR	57.7	60.1	56.0
IT	58.0	57.8	58.4
CY	61.5	61.2	61.9
LV	59.5	60.5	58.9
LT	59.5	60.6	58.9
LU	58.9	58.7	59.3
HU	58.5	59.8	57.5
MT	59.1	59.1	58.8
NL	62.7	62.7	62.7
AT	58.5	59.3	57.8
PL	57.0	58.5	56.1
PT	59.9	59.6	60.3
RO	56.9	58.0	56.0
SI	56.6	58.3	55.2
SK	57.4	59.8	56.1
FI	61.4	61.4	61.5
SE	63.6	63.6	63.6
UK	58.3	58.0	58.6

Source: Eurostat. LFS ad hoc module 2012

Table B14: Duration of retirement by sex, EU and Member States, 2014, 2020 and 2060

MS	MALE					FEMALE				
	2014	2020	2040	2060	Change 2014-2060	2014	2020	2040	2060	Change 2014-2060
EU	18.1	18.1	19.9	21.7	3.7	22.6	22.3	23.7	25.3	2.7
BE	20	20.7	22.9	24.9	4.9	23.7	24.4	26.4	28.3	4.6
BG	14.8	15	17.7	20.3	5.5	19.9	19.9	22.6	25.2	5.3
CZ*	17.2	18	19	20.4	3.2	22.7	23.5	23.2	23.6	0.9
DK*	16.9	17.5	18.7	19.7	2.8	22	21.1	22.4	22.6	0.6
DE	18.1	18.7	20	21.8	3.7	21.9	21.7	23.7	25.6	3.7
EE	15.6	15.9	18.5	21	5.4	21	20.9	23.1	25.1	4.1
IE	18.2	18.8	19.9	21.7	3.5	21.1	21.8	23	24.9	3.8
EL*	18.9	18.8	19.2	20.7	1.2	21.8	21.5	22.6	23.6	1.8
ES	20.2	19.3	20.3	22	1.8	23.5	22.2	22.9	24.5	1
FR	22.1	21.9	23	24.8	2.7	26.5	26.1	26.9	28.4	1.9

HR	17.2	17.3	19.2	21.7	4.5	22.3	22.2	22.8	25.1	2.8
IT*	21	18.3	20.1	20.9	-0.1	24.7	22.6	23.5	23.3	-1.4
CY*	18.4	18.1	19.1	19.9	1.5	22.7	20.5	22.4	23.3	0.6
LV	13.9	14.8	17.7	20.4	6.5	19.3	19.4	21.9	24.2	4.9
LT	15.5	15.9	18.8	21.5	6	21.7	21.7	23.3	25.5	3.8
LU	22.6	23.3	25.4	27.3	4.7	25.6	26.2	28.1	29.8	4.2
HU	15.8	15.5	18.2	20.8	5	19.8	19.9	21.7	24.1	4.3
MT	20.7	20.4	21.5	23.3	2.6	24.9	24.7	25.8	27.6	2.7
NL*	18.1	17.1	18.1	19.8	1.7	21.9	21.7	22.8	24.6	2.7
AT	20.3	19.4	21.4	23.3	3	24.7	24.5	25.6	27.4	2.7
PL	16.2	15.7	18.2	20.5	4.3	23.8	22.9	21.9	24	0.2
PT*	18.5	18.3	19.5	20.6	2.1	22.2	21.9	22.9	24.7	2.5
RO	15.3	16.2	18.9	21.5	6.2	20.2	21.1	23	25.6	5.4
SI	18.7	18.7	20.9	22.9	4.2	25.3	22.5	24.5	26.4	1.1
SK*	16.8	17.7	19.1	20	3.2	22.7	21.9	23.6	23.3	0.6
FI	18.6	19.3	21.3	23.2	4.6	23.3	23	24.9	26.6	3.3
SE	17.9	18.4	20.2	21.8	3.9	22.1	22.7	24.7	26.5	4.4
UK	18.5	19.1	20.1	21.8	3.3	21.8	22.5	22.8	24.6	2.8

Source: Ageing Report. p. 67. Data SourceCommission services. EPC. Notes: (1) Duration of retirement is calculated on the basis of life expectancy at average effective exit age from the labour market as from the EUROPOP 2013. *Countries where statutory retirement age is legislated to increase in line with increase in life expectancy.

Table B15: Duration of retirement over average length of working career by gender, EU and Member States, 2014, 2020, 2014 and 2060

	MALE					FEMALE				
	2014	2020	2040	2060	Change 2014-2060	2014	2020	2040	2060	Change 2014-2060
EU	43.5	43	46.5	50.4	6.9	58	55.1	58.3	61.8	3.7
BE	51.1	52.8	58.3	63.4	12.3	61.8	63.7	68.9	73.9	12.1
BG	36.1	36	42.4	48.7	12.6	54	53.8	61.2	68.2	14.2
CZ*	42.1	43.8	44.6	48.4	4.4	64.6	65.9	59.9	58.2	-6.3
DK*	39.3	40.4	42.1	43.7	4.4	54.6	50.2	52.2	50.8	-3.8
DE	41	42.2	44.9	48.9	7.8	52.2	51.5	55.4	59.8	7.6
EE	36.3	36.9	42.3	48	11.7	50.7	50.3	55.1	59.8	9.2
IE	42.5	43.6	45.3	49.4	6.9	51	52	54	58.5	7.5
EL*	45.2	44.4	43.4	44.8	-0.5	53.9	52.8	53.6	54.9	1
ES	49.7	45.2	46.2	49.9	0.2	57.1	51.9	52.6	56.2	-0.9
FR	56.3	53.8	55.4	59.8	3.5	70.7	67.2	67.9	71.7	1
HR	43.1	43.1	46.2	52.2	9.2	60.3	59.7	58.5	64.4	4.1
IT*	54.7	43.7	47.4	48.3	-6.4	68.7	57.8	58.8	56.7	-12.1
CY*	41.9	40.1	41.8	42.9	1	56.5	47.9	51.4	52.3	-4.2
LV	32.3	34.2	40.6	46.8	14.5	47.4	47.1	52.4	57.9	10.6
LT	38.1	38.5	44.6	51.2	13.1	57	55.7	58.4	63.9	6.9
LU	59.8	62.2	67.8	72.9	13	69.8	71.9	77.1	81.7	12
HU	39.5	37.2	43	49.2	9.7	52.8	51.3	55.2	61.3	8.5
MT	49.1	47.3	48.9	53	3.9	62.3	60.9	62.6	66.9	4.7
NL*	40.8	37.8	39.2	42.3	1.6	52.4	51.5	52.8	56.1	3.7
AT	48	44.3	48.7	53	5	63.3	60.9	62.2	66.6	3.4
PL	38.9	35.9	41.6	46.9	8	67.2	61.7	53.4	58.6	-8.6
PT*	44.1	42.6	44.2	46.5	2.4	54.1	52	53.3	57.2	3.1
RO	37.8	40.1	46.8	53.2	15.4	55.4	58	62.9	70	14.6
SI	46.9	45.4	50.7	55.6	8.7	69.1	56.1	61.1	65.8	-3.3
SK*	42	44.3	45.9	45.2	3.2	67	61.7	63.5	58.7	-8.4
FI	44.7	45.9	50.7	55.2	10.4	57.8	56.2	60.8	65	7.1
SE	39.9	41.3	45.4	49	9.1	51.8	53.4	58.1	62.4	10.6
UK	40.9	42.3	43.8	47.3	6.4	51.3	52.5	51.2	55.3	4

Source: Ageing Report (2015). p. 69 Notes: (1) Duration of retirement calculated on the basis of life expectancy at average effective exit age from the labour market as from EUROPOP 2013. *Countries where statutory retirement age is legislated to increase in line with increase in life expectancy.

Table B16: Current adequacy indicators: Poverty and Social Exclusion by sex, EU28 and Member States, 2014

5	People at risk of poverty or social exclusion (AROPE) (1)			At-risk-of-poverty rate of older people (2)				At-risk-of-poverty rate before social transfers (pensions included in social transfers) (3)						Severe material deprivation (4)	
AGE	65 years or over			Less than 65		65 years or over		16 years or over		From 55 to 64 years		65 years or over		65 years or over	
GEO / SEX	Total	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
EU28	17.8	14.6	20.2	17.8	18.2	11.2	15.8	43.8	48.5	43.6	52.6	87.3	88.8	5	7.2
BE	17.3	16.5	17.9	14.9	15.8	15.5	16.5	42.7	47.9	43.8	53	91.4	92.6	1.9	2.9
BG	47.8	42.3	51.5	21.4	21.7	18	25.8	44.5	47.9	41	48.9	82.5	80.9	35.9	43.3
CZ	10.7	6.9	13.6	9.7	10.9	4.3	8.9	34.9	42.6	37.9	53.9	88.9	90.3	3.8	6
DK	10.8	9.8	11.6	13.1	12.2	9.1	10.4	43.7	47.1	34.4	43.6	90.8	94	0.6	1.2
DE	17.4	14.9	19.7	16.4	17.1	14	18.4	44.3	48.2	42	51.2	92.9	95.5	2.5	3.8
EE	35	20.7	42.2	20.4	18.6	18.5	39.7	39.9	45.8	47.7	49	84.5	87.3	4.4	7.5
IE	13.5	11.2	15.4	16	16.7	9.3	12.2	48.7	51.7	49.6	52.7	85.6	89.4	2.1	3.6
EL	23	21	24.7	24.2	23.7	13.3	16.1	53.5	57.3	56.5	67.1	89.9	90	13.8	16.9
ES	12.9	11.4	14	24.7	24.4	10	12.5	47.4	50.1	45	50.9	80.8	82.7	1.9	2.8
FR	10.1	8.5	11.3	13.6	15.1	7.2	9.6	44.1	49.1	50.2	56.6	87.3	89.4	1.8	2.9
HR	29.7	26.1	32.1	18.3	18.9	20.8	24.6	44.4	48.3	44.3	53.7	83.3	83.8	12.5	16.2
IT	20.2	16.5	23	20.1	21.7	11	16.6	44.9	50.4	41.1	51.4	83.3	86.2	7.8	9.6
CY	27.2	22.4	31.2	12.5	14	17.6	26.5	36.1	40.8	36.8	51	86.2	90.5	7	7.8

LV	39.3	28	44.8	20.1	19.2	15.9	33.2	38.5	46	39.9	45.7	76.6	81.7	17.2	24.3
LT	31.9	23.1	36.3	18.7	19.2	11.9	24.3	40.8	47.3	42.2	47.7	85.1	85.8	15.8	18.9
LU	6.4	5.7	6.9	17.9	18.4	5.7	6.8	42.1	48.6	50.4	60.3	86.8	91.5	0	0.1
HU	19	15.5	21	17.2	16.9	3.8	4.9	46.7	53	50.6	61.2	92.4	90.6	13.3	18.3
MT	23.3	22.3	24.2	15.5	15.8	16.7	17.1	35.6	41.6	35.9	46.2	81.2	85.3	6.8	9.1
NL	6.9	5.6	7.9	12.5	13	4.9	6.8	38.6	43.2	31.1	45.6	91.5	94.7	0.7	1.2
AT	15.7	12.4	18.2	13.6	14.5	11.4	16.4	40.5	47.5	41.8	56.9	87.1	89.8	1.4	2.4
PL	18.2	13.6	21.1	18.4	17.5	8.4	13.8	42.8	47.2	48.3	57.3	82.9	82.4	7.4	11.2
PT	21.1	17.6	23.6	20.2	20.9	12.6	16.9	48.1	51.6	52.3	62.1	90	88.2	7.4	11.4
RO	33.2	27.2	37.2	27.7	26.6	10.5	18.9	46.9	50.3	48.6	59.9	88.2	84.3	21.1	27.2
SI	20.1	13.6	24.7	14.2	13.7	10.8	21.6	42	48.4	55.7	67.3	86.9	89.6	5.9	7.4
SK	13.4	10.4	15.3	13.8	13.6	4.1	7.5	36	40.8	36.7	47	83.9	83.4	7.6	10.2
FI	17	11.8	20.9	12.6	11.5	11	19.7	43.3	47.7	40.7	43.7	87.7	94	1.2	2
SE	16.5	10.3	21.7	14.7	14.8	10.3	21.7	43.4	48.6	28.1	37.9	90.4	95.6	0.2	0.1
UK	19.3	15.9	22.1	16.3	16.9	14.7	20.6	40.6	46.6	38.3	45.8	86.1	89.1	1.8	1.9

Source: Eurostat.

(1) EU-SILC [ilc_peps01]. Notes: At-risk-of-poverty or social exclusion rate (AROPE) ,(% of population), 65 years or over, by gender,

(2) SILC [ilc_pnp1]. Notes: At-risk-of-poverty rate (cut-off point: 60% of median equivalised income after social transfers)

(3) EU-SILC (ilc_li09). Notes: At-risk-of-poverty rate before social transfers (pensions included in social transfers) (cut-off point: 60% of median equivalised income after social transfers).

(4) **Source**: Eurostat. EU-SILC. [ilc_mddd11]. Notes: Severe material deprivation (population aged 65 years or over) by gender.

Table B17: At-risk-of-poverty rate for pensioners (65 years and over), EU28 and Member States, 2008 and 2014

TIME	2008		2014	
GEO / SEX	Males	Females	Males	Females
EU28	15.6*	19.5*	11.1	15
BE	19.7	20.1	15	13.8
BG	28.7	36.8	18.4	26.2
CZ	3.5	10.3	4.6	9.1
DK	17.6	18.8	9.8	10.8
DE	12.8	16	13.8	18.1
EE	29.9	49.8	21	42.2
IE	16.7	17.9	9.3	11.4
EL	20.1	26.3	11.9	14.6
ES	22	22.4	9.9	8.4
FR	9	13	7	9
HR	:	:	19.4	21.6
IT	16.8	17.3	11.1	11.1
CY	46.8	51.9	18.7	26.9
LV	54.1	59.9	17.7	35.5
LT	19.8	39.1	12.5	25.1
LU	4.8	4.7	5.3	3.1
HU	2.6	5.1	3.9	4.7
MT	25.7	17	16.6	8.9
NL	8.7	9.4	4.7	7
AT	14.2	20.7	11.7	15.9
PL	7.7	13.3	7.9	14
PT	17.8	24.8	12.4	14.1
RO	18.9	27.8	9.3	17.7
SI	11.7	27.4	10.3	21.4
SK	3.9	13.6	4.2	7.6
FL	15.7	27.6	11	20
SE	9	20	10.6	22.3
UK	26.8	31.1	15.8	21.7

Source: Eurostat. EU-SILC (ilc_pns6). Note: for 2008 EU27 in considered. For Croatia no data for 2008.

Table B18: Ratio of elderly women and retired women median equivalised income over men's income, EU28 and Member States, 2014

MEMBER STATE	RATIO OF ELDERLY WOMEN'S INCOME TO MEN'S	RATIO OF ELDERLY RETIRED WOMEN'S INCOME TO MEN'S
EU28	89	92
EU27	89	92
BE	91	93
BG	89	90
CZ	92	92
DK	94	97
DE	92	92
EE	85	85
IE	95	108

EL	95	100
ES	90	102
FR	92	93
HR	88	91
IT	92	102
CY	85	88
LV	83	85
LT	87	88
LU	94	110
HU	92	93
MT	92	114
NL	96	96
AT	89	90
PL	86	88
PT	89	91
RO	86	87
SI	87	87
SK	94	94
FI	87	87
SE	83	85
UK	93	95

Source: Eurostat data on Living condition and social protection (EU-SILC).

Table B19: Aggregate replacement ratio of pension income by sex, EU28 and Member States, 2008 and 2014

Member state	Male		Female	
	2008	2014	2008	2014
EU28	:	0.58	:	0.54
EU27	0.48	0.58	0.52	0.54
BE	0.44	0.48	0.47	0.49
BG	0.37	0.51	0.36	0.37
CZ	0.48	0.57	0.56	0.59
DK	0.38	0.43	0.44	0.46
DE	0.46	0.46	0.47	0.49
EE	0.37	0.39	0.54	0.58
IE	0.46	0.42	0.55	0.41
EL	0.48	0.61	0.44	0.67
ES	0.46	0.65	0.42	0.50
FR	:	0.67	:	0.62
HR	:	0.40	:	0.37
IT	0.57	0.65	0.40	0.53
CY	0.38	0.47	0.37	0.39
LV	0.25	0.43	0.34	0.51
LT	0.45	0.47	0.46	0.51
LU	0.54	0.83	0.59	0.91
HU	0.61	0.65	0.61	0.60
MT	0.43	0.55	0.39	0.45
NL	0.49	0.58	0.51	0.45

AT	0.61	0.68	0.56	0.57
PL	0.65	0.70	0.53	0.60
PO	0.66	0.64	0.49	0.59
RO	0.54	0.70	0.45	0.65
SI	0.50	0.48	0.40	0.43
SK	0.54	0.59	0.55	0.66
FI	0.48	0.51	0.49	0.49
SE	0.64	0.63	0.58	0.54
UK	0.45	0.51	0.44	0.53

The Aggregate replacement ratio of pension income ratio between average pension income of the aged 65-74 and average income from work of the aged 50-59; (☺ break in time series
Source: Eurostat data on Living condition and social protection (EU-SILC).

Table B20: Current TRRs for the different cases (net. average earnings); underlying standard pensionable ages (SPA) and annual earnings, EU28 and Member States, 2013

Member State	Net theoretical Replacement Rates (2013)				SPA in 2013	
	Case I		Case III			
	Age 25 to 65		age 25 to SPA			
	Men*	Women*	Men*	Women*	Men*	Women*
BE	78.6		78.6		65.5	
BG	62.3	69.3	55.3	51.1	63.7	60.7
CZ	62.2	72.1	52.2	48.9	62.5	
DK	68.4		68.4		65	
DE	57		57.6		65.2	
EE	61.9	77.1	49.2	61	63	
IE	83.1		83.1		65	
EL	n.a.		n.a.		62	
ES	96.2		96.2		65	
FR	80.2		80.2		65	
HR	55.5	59.7	55.5	49.6	65	60.8
IT	80.2		83.9	75.7	66.3	62.3
CY	58		58		65	
LV	71.9		61.1		62	
LT	61.6	70	49.9	47.3	62.7	60.6
LU	105.4		93.5		60**	
HU	100.8		80.6		62	
MT	79		79		62	
NL	114		114		65.1	
AT	85.1	93.7	85.1	77.1	65	60
PL	74.2	74.2	75.5	66.6	65.1	60.1
PT	92.3		92.3		65	
RO	73.1	62.1	73.1	59.5	64.8	59.8
SI	57.3	60.3	55.4	55.9	60	
SK	76	77.9	59.6	58.8	62	61.5
FL	69.5		69.5		65	
SE	69.3		69.3		65	
UK	83.4	88	83.4	71.4	65	61.3-61.8

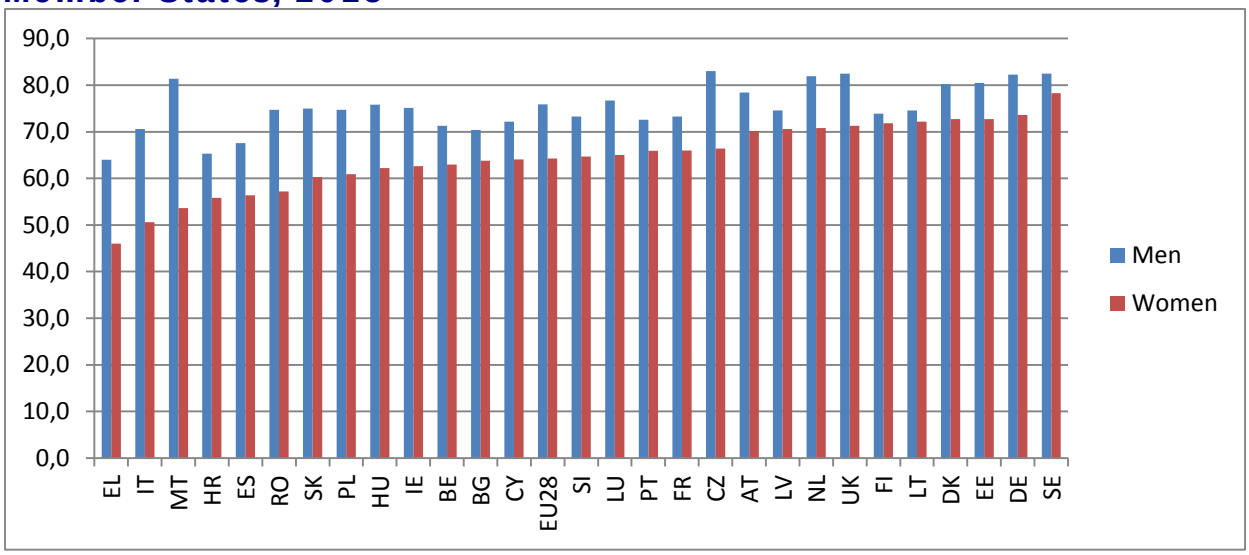
Source: Pension Adequacy Report (2015). p. 118. Data source: Member States. Note: *if gender difference exists. ** LU: SPA of 57 assumed for bae case I. Data for EL not available.

Table B21: Prospective TTRs for the different cases (net. average earnings) and underlying standard pensionable ages (SPA), EU28 and Member States, 2053

Member State	Net prospective theoretical Replacement Rates (2053)				SPA in 2053	
	Case I		Case III			
	Age 25 to 65		age 25 to SPA			
	Men	Women*	Men	Women*	Men	Women*
BE	74.7		74.7		65***	
BG	83.3	90.8	83.3	75.7	65	63
CZ	50.9		61.4		68.3	
DK	n.a.		81.7		72	
DE	67.6		74.4		67	
EE	55.9		55.9		65	
IE	38.4		71.4		68	
EL	47		47		62	
ES	86.8		86.8		65	
FR	59.8		69		67	
HR	40.2		43.5		67	
IT	70.2		89.3		70.3	
CY	n.a.		75		68.5	
LV	21.2		21.2		65	
LT	71.3		71.3		65	
LU	95.3		83.7		60**	
HU	81.9		81.9		65	
MT	73.8		73.8		65	
NL	47.6		92.5		67	
AT	86.1		86.1		65	
PL	37.7		43.4		67	
PT	66.5		84.2		68.4	
RO	41.1	43.9	41.1	39.1	65	63
SI	60.9	63.6	60.9	63.6	60	
SK	59.5		69.6		66	
FL	59.1		59.1		65	
SE	55.3		55.3		65	
UK	35.9		80.4		68	

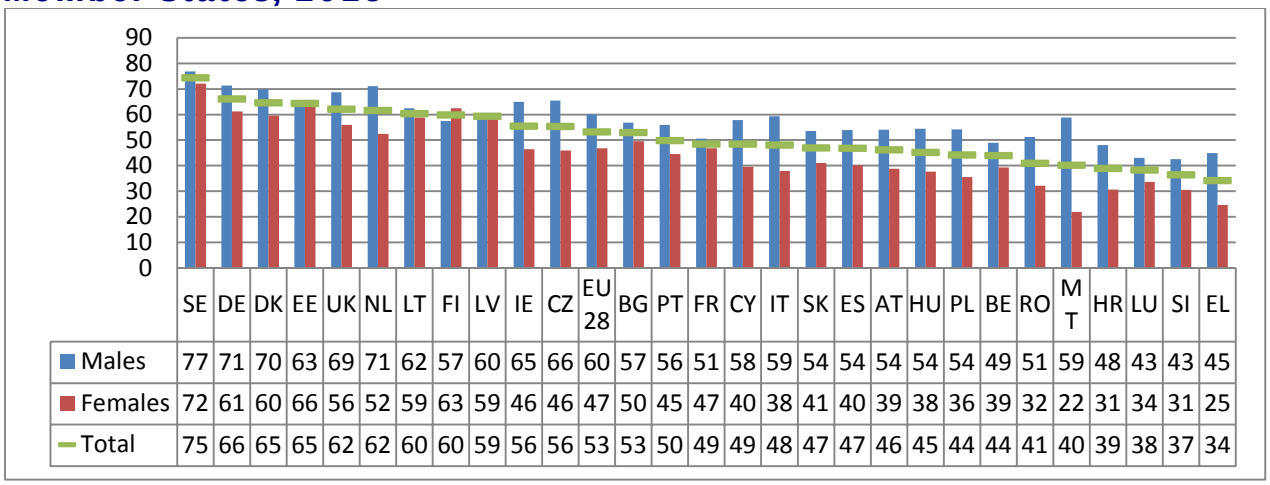
Source: Pension Adequacy Report (2015). p. 206. Data source: Member States & OECD. * if gender differences exist. n.a.: pension cannot be drawn at age 65. In IE. NL and UK. the public/state pension cannot be drawn at age 65. ** LU: SPA of 57.0 assumed for base case I. *** BE: as of end 2014. reforms adopted thereafter are not reflected

Figure B1: Employment rate (20-64) by sex, annual data, EU28 and Member States, 2015



Data Source: Eurostat, LFS [lfsi_emp_a]

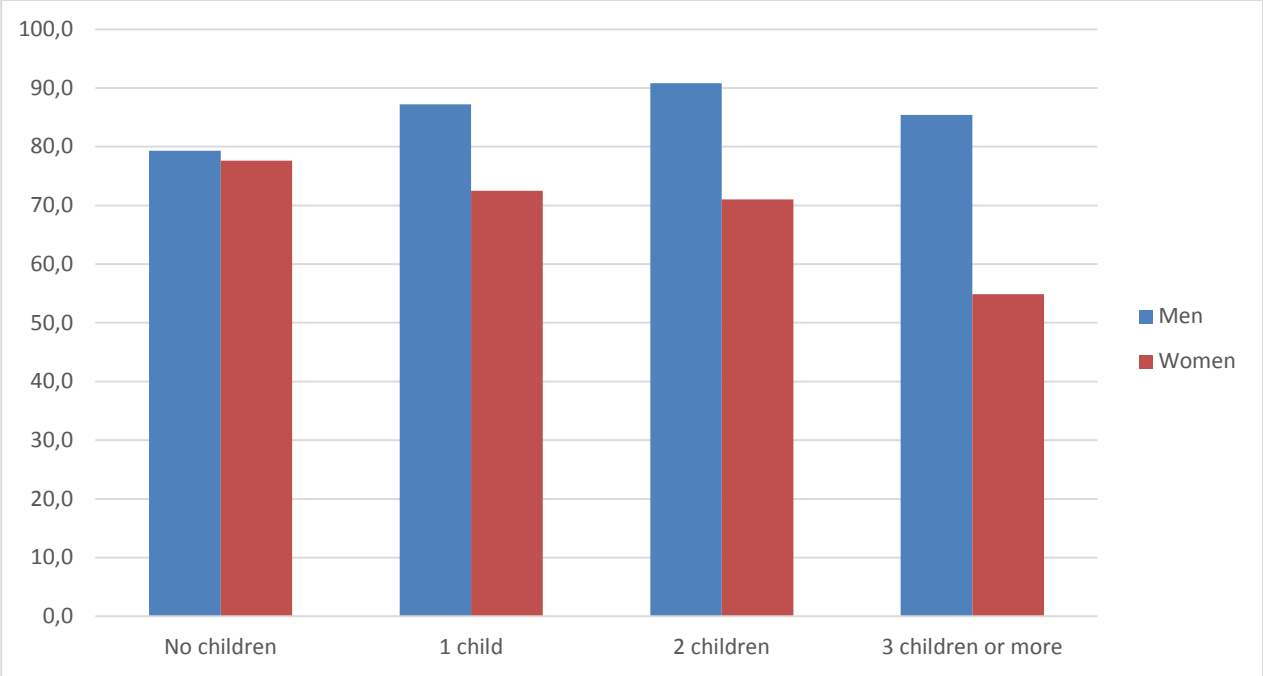
Figure B2: Employment rate of older workers (55-64 years), EU28 and Member States, 2015



	SE	DE	DK	EE	UK	NL	LT	FI	LV	IE	CZ	EU 28	BG	PT	FR	CY	IT	SK	ES	AT	HU	PL	BE	RO	M T	HR	LU	SI	EL
Males	77	71	70	63	69	71	62	57	60	65	66	60	57	56	51	58	59	54	54	54	54	54	49	51	59	48	43	43	45
Females	72	61	60	66	56	52	59	63	59	46	46	47	50	45	47	40	38	41	40	39	38	36	39	32	22	31	34	31	25
Total	75	66	65	65	62	62	60	60	59	56	56	53	53	50	49	49	48	47	47	46	45	44	44	41	40	39	38	37	34

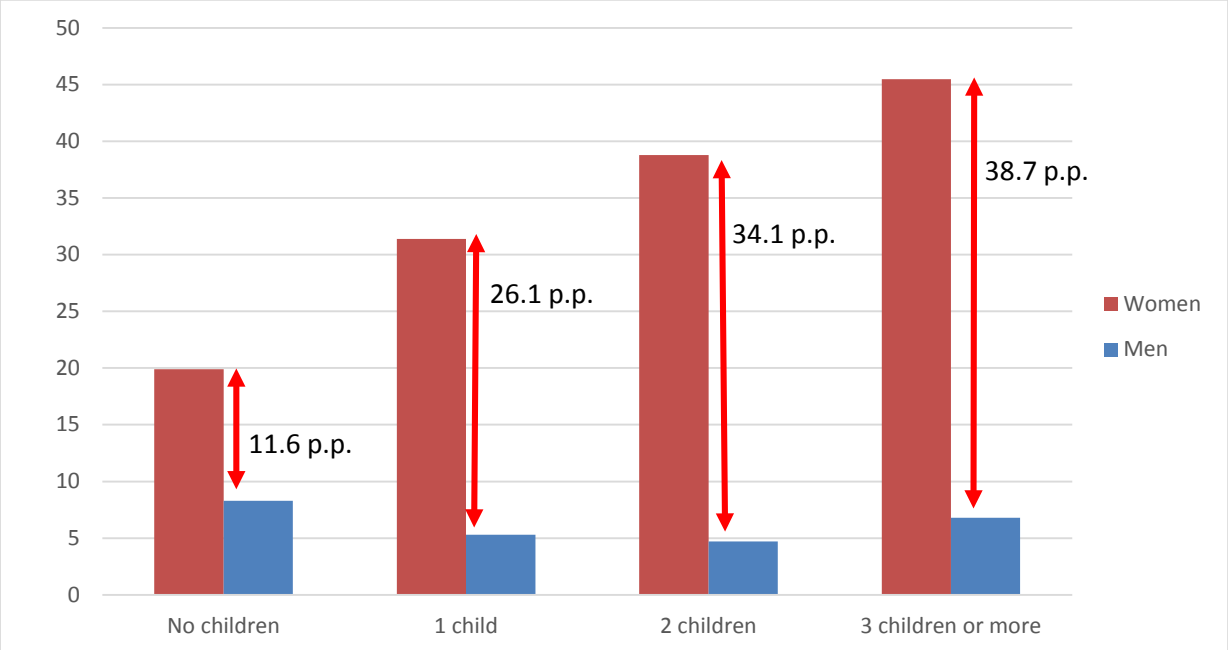
Source: Eurostat, LFS [lfsa_ergaed]

Figure B3: Employment rate (EU28 average) of women and men (25-49) by number of children, EU28, 2015



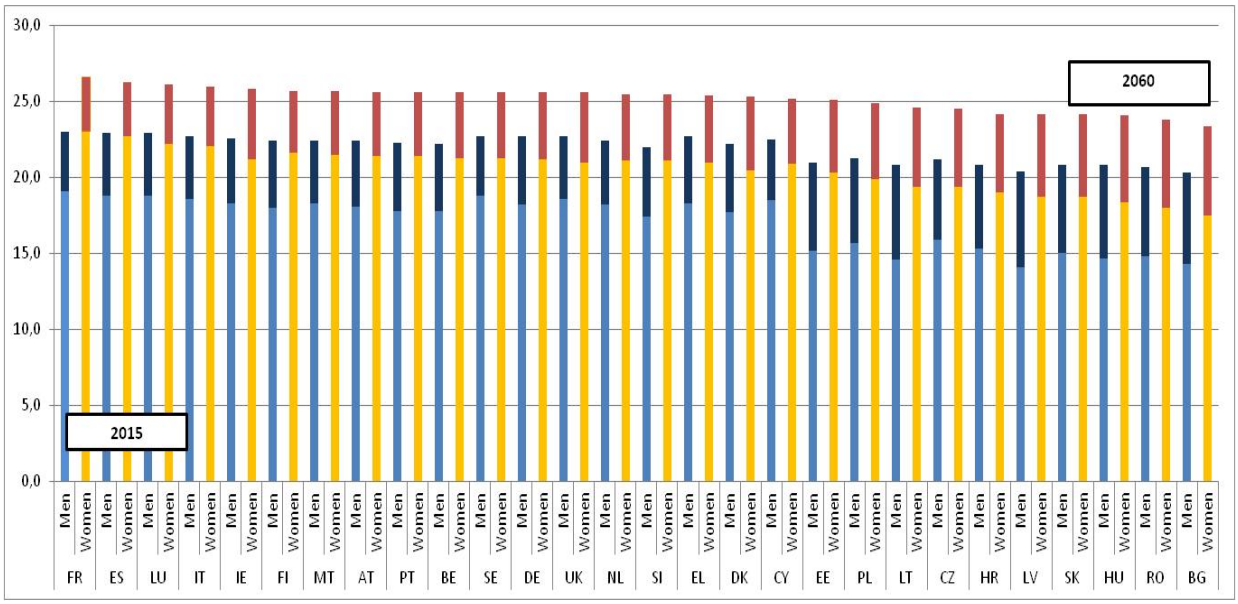
Source: Eurostat, [lfst_hheredch]

Figure B4: Part-time employment (EU28 average) by sex and number of children, (population in employment aged 25 to 49-in %), EU28, 2014



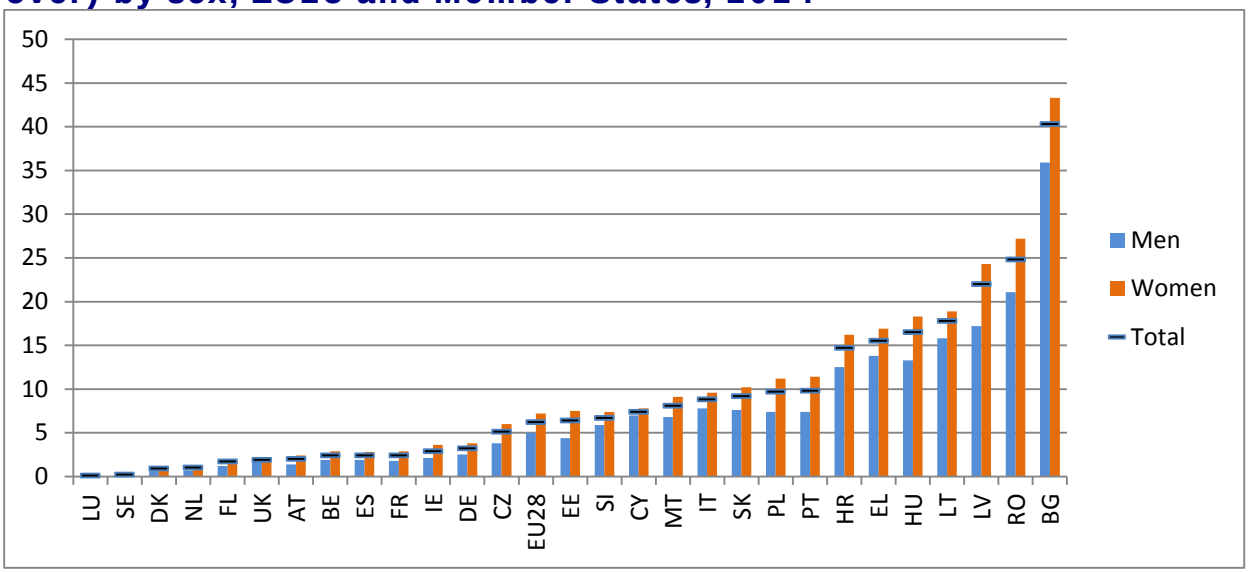
Source: Eurostat

Figure B5: Life expectancy at 65, by sex and Member States, 2013 and 2060



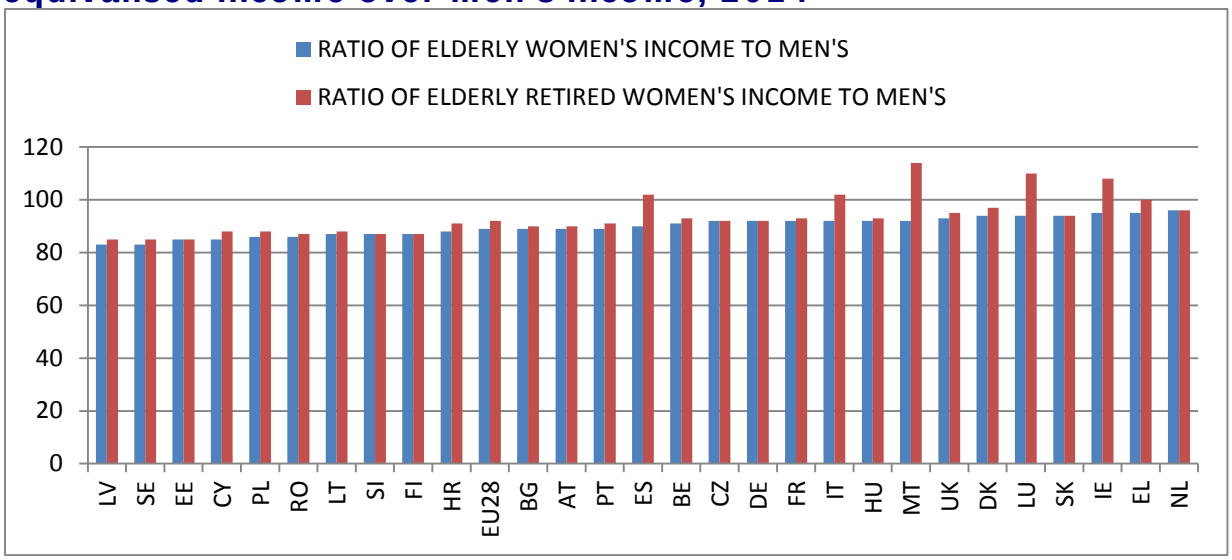
Source: Eurostat

Figure B6: Severe material deprivation (population aged 65 years or over) by sex, EU28 and Member States, 2014



Source: Eurostat

Figure B7: Ratio of elderly women and retired women median equivalised income over men's income, 2014



Source: Eurostat data on living conditions and social protection (EU-SILC).

Annex C – Additional tables and figures for chapter 4

Table C1: CSR 2012 -2015 on pensions

2012			
Member State	**Recommendations**		**Specific vulnerable group(s) addressed**
Austria	CSR n.3: Pension system (retirement age)	Bring forward the harmonisation of the statutory retirement age between men and women; enhance older workers' employability and monitor closely the implementation of the recent reforms restricting access to early exit channels in order to ensure that the effective retirement age is rising including through linking the statutory retirement age to life expectancy.	Employees nearing the age of retirement
Belgium	CSR n.2: Pension system (Retirement age)	Continue to improve the long-term sustainability of public finances by curbing age-related expenditure, including health expenditure. In particular, implement the reform of pre-retirement and pension schemes and take further steps to ensure an increase in the effective retirement age, including through linking the statutory retirement age to life expectancy	Employees nearing the age of retirement
Bulgaria	CSR n.2: Pension system (Retirement age)	Take further steps to reduce risks to the sustainability and to improve adequacy of the pension system by making the statutory retirement age the same for men and women with full career contributions. Introduce stricter criteria and checks for allocating invalidity pensions	Employees nearing the age of retirement
Cyprus	CSR n.3: Retirement	Further improve the long-term sustainability and adequacy of the pensions system and address the high at-risk-of-poverty rate for the elderly. Ensure an increase in the effective retirement age, including through aligning the statutory retirement age with the increase in life expectancy.	The elderly at or nearing the age of retirement
Czech Republic	CSR n.2: Retirement and youth employment	Introduce further changes to the public pension scheme to ensure its long-term sustainability. Reconsider plans to allow an earlier exit from the labour market. Promote effective participation of younger workers in the envisaged funded scheme to improve adequacy of pensions.	Elderly and unemployed youth

Lithuania	CSR n.2: Retirement	Adopt legislation on a comprehensive pension system reform. Align the statutory retirement age with life expectancy, draw up clear rules for the indexation of pensions, and improve complementary savings schemes. Underpin pension reform with active ageing measures.	The elderly at or nearing the age of retirement
Luxembourg	CSR n.2: Retirement	Strengthen the proposed pension reform by taking additional measures to increase the participation rate of older workers, in particular by preventing early retirement, and by taking further steps to increase the effective retirement age, including through linking the statutory retirement age to life expectancy, in order to ensure the long-term sustainability of the pension system	Older workers
Malta	CSR n.2: Retirement	Take action, without further delay, to ensure the long-term sustainability of the pension system, comprising an increase in the effective retirement age, including through a significant acceleration of the progressive increase in the statutory retirement age compared to current legislation and through a clear link between the statutory retirement age and life expectancy, and measures to encourage private pension savings. Take measures to increase the participation of older workers in the labour force and discourage the use of early retirement schemes	Older workers
Netherlands	CSR n.2: Retirement	Take measures to increase the statutory retirement age, including linking it to life expectancy, and underpin these with labour market measures to support raising the effective retirement age, while improving the long-term sustainability of public finances. Adjust the second pension pillar to mirror the increase in the statutory retirement age, while ensuring an appropriate intra- and inter-generational division of costs and risks. Implement the planned reform in long-term care and complement it with further measures to contain the increase in costs, in view of an ageing population	Older workers
Slovakia	CSR n.3: Retirement	Further adjust the pay-as-you-go pension pillar, mainly by changing the indexation mechanism, introducing a direct link between the statutory retirement age and life expectancy and introducing a sustainability factor in the pension calculation	Older workers

		formula reflecting demographic change. Ensure the stability and viability also of the fully funded pillar.	
Slovenia	CSR n.2: Retirement	Take urgent steps to ensure the long-term sustainability of the pension system, while preserving the adequacy of pensions, by: (i) equalising the statutory retirement age for men and women; (ii) ensuring an increase in the effective retirement age, including through linking the statutory retirement age to life expectancy; (iii) reducing early retirement possibilities; and (iv) reviewing the indexation system for pensions. Increase the employment rate of older workers also by further developing active labour market policies and lifelong learning measures	Older workers
Spain	CSR n.2: Retirement	Ensure that the retirement age is rising in line with life expectancy when regulating the sustainability factor planned in the recent pension reform and underpin the Global Employment Strategy for Older Workers with concrete measures to develop lifelong learning further, improve working conditions and foster the reincorporation of this group in the job market	Older workers
2013			
Austria	CSR n.2: Retirement	Bring forward the harmonisation of pensionable age for men and women, increasing the effective retirement age by aligning the retirement age or pension benefits to changes in life expectancy, implement and monitor the recent reforms restricting access to early retirement and further improve older workers' employability in order to raise the effective retirement age and the employment rate of older workers	Older workers
Belgium	CSR n.2: Retirement	Step up efforts to close the gap between the effective and statutory retirement age, including by pursuing the ongoing reforms to reduce the early-exit possibilities. Underpin reforms of the old-age social security systems with employment-support measures and labour-market reforms conducive to active ageing. Increase the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy. Continue to improve the cost efficiency of public spending on long-term institutional care.	Older workers

Bulgaria	CSR n.2: Retirement	Phase out early retirement options, introduce the same statutory retirement age for men and women and implement active labour-market policies that enable older workers to stay longer in the labour market. Tighten the eligibility criteria and checks allocating invalidity pensions to effectively limit abuse.	Older workers
Czech Republic	CSR n.3: Retirement	Increase the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy, and review the indexation mechanism. Accompany the increase in retirement age with measures promoting employability of older workers and reduce early exit pathways. In particular, remove the public subsidy for the pre-retirement scheme. Take measures to significantly improve cost-effectiveness of healthcare expenditure, in particular for hospital care	Older workers
Finland	CSR n.3: Retirement and youth/long-term unemployment	Take further steps to increase the employment rate of older workers, including by improving their employability and reducing early exit pathways, increasing the effective retirement age by aligning the retirement age or pension benefits to changes in life expectancy. Implement and monitor closely the impact of ongoing measures to improve the labour-market position of young people and the long-term unemployed, with a particular focus on the development of job-relevant skills.	Older workers, unemployed youth, long-term unemployed
Lithuania	CSR n.2: Retirement	Adopt and implement legislation on a comprehensive pension system reform. Align the statutory retirement age with life expectancy, restrict access to early retirement, draw up clear rules for the indexation of pensions, and promote the use of complementary savings schemes while ensuring implementation of ongoing reforms. Underpin pension reform with measures that promote the employability of older workers.	Older workers
Luxembourg	CSR n.3: Retirement	Curb age-related expenditure by making long-term care more cost effective, in particular through a stronger focus on prevention, rehabilitation and independent living, strengthening the recently adopted pension reform, taking additional measures to curb early retirement and increasing the effective retirement age by aligning the retirement age or pension benefits to changes in life expectancy.	Older workers and retirees

Malta	CSR n.2: Retirement	To ensure the long-term sustainability of public finances, continue to reform the pension system to curb the projected increase in expenditure, including by measures such as accelerating the increase in the statutory retirement age, increasing the effective retirement age by aligning the retirement age or pension benefits to changes in life expectancy and by encouraging private pension savings. Take measures to increase the employment rate of older workers by finalising and implementing a comprehensive active ageing strategy. Pursue healthcare reforms to increase the cost-effectiveness of the sector, in particular by strengthening public primary care provision. Improve the efficiency and reduce the length of public procurement procedures.	Older workers, retirees
Netherlands	CSR n.3: Retirement	Adjust the second pension pillar, in consultation with social partners, to ensure an appropriate intra- and inter-generational division of costs and risks. Underpin the gradual increase of the statutory retirement age with measures to increase the employability of older workers. Implement the planned reform of the long-term care system to ensure its cost-effectiveness and complement it with further measures to contain the increase in costs, with a view to ensure sustainability.	Older workers, retirees
Romania	CSR n.2: Retirement	Continue the pension reform started in 2010 by equalising the pensionable age for men and women and by promoting the employability of older workers.	Older workers
Slovenia	CSR n.2: Retirement	Strengthen the long-term sustainability of the pension system beyond 2020 by further adjusting all relevant parameters, including through linking the statutory retirement age to gains in life expectancy, while preserving the adequacy of pensions. Contain age-related expenditure on long-term care and improve access to services by refocusing care provision from institutional to home care, sharpening targeting of benefits, and reinforcing prevention to reduce disability/dependency.	Older workers, retirees
2014			
Austria	CSR n.2: Retirement	Improve the long-term sustainability of the pension system, in particular by bringing forward the harmonisation of the statutory retirement age for men and women, by increasing the effective retirement age and by aligning the retirement age to changes in	Older workers, retirees

		life expectancy. Monitor the implementation of recent reforms restricting access to early retirement. Further improve the cost-effectiveness and sustainability of healthcare and long-term care services.	
Belgium	CSR n.3: Retirement	Contain future public expenditure growth relating to ageing, in particular from pensions and long-term care, by stepping up efforts to reduce the gap between the effective and statutory retirement age, bringing forward the reduction of early-exit possibilities, promoting active ageing, aligning the retirement age to changes in life expectancy, and improving the cost-effectiveness of public spending on long-term care.	Older workers, retirees
Bulgaria	CSR n.2: Retirement and health care	Adopt a long-term strategy for the pension system, proceeding with the planned annual increase in the statutory retirement age and setting out a mechanism to link the statutory retirement age to life expectancy in the long term, while phasing out early retirement options and equalising the statutory retirement age for men and women. Tighten eligibility criteria and procedures for allocating invalidity pensions, for example by taking better account of the remaining work capacity of applicants. Ensure cost effective provision of healthcare including by improving the pricing of healthcare services while linking hospitals' financing to outcomes, accelerating the optimisation of the hospital network and developing out-patient care	Older workers and retirees
Croatia	CSR n.2: Retirement and health care	Reduce access to early retirement. Adopt legislation by March 2015 to accelerate the planned harmonisation of statutory retirement ages of women and men and to advance the planned increase of the statutory retirement age to 67 years. Ensure enforcement of tighter disability pensions assessments and checks, and accelerate the integration of pensions under special schemes into the general pension system. Strengthen the cost-effectiveness of the healthcare sector, including hospitals.	Older workers, retirees
Czech Republic	CSR n.3: Retirement	Ensure the long-term sustainability of the public pension scheme, in particular by accelerating the increase of the statutory retirement age and then by linking it more clearly to changes in life expectancy. Promote the employability of older workers and review the pension indexation mechanism. Take measures to	Older workers, retirees

		improve significantly the cost-effectiveness and governance of the healthcare sector, in particular for hospital care.	
Finland	CSR n.3: Unemployment and Retirement	Improve the use of the full labour force potential in the labour market, including by improving the employment rate and the employability of older workers, and increasing the effective retirement age, by reducing early exit pathways and aligning the retirement age or pension benefits to changes in life expectancy. Improve the labour-market prospects of young people and the long-term unemployed, with a particular focus on vocational education and targeted activation measures.	Long-term unemployed, older workers, unemployed youth
Lithuania	CSR n.2: Retirement	Adopt and implement legislation on a comprehensive pension system reform. In particular, align the statutory retirement age with life expectancy, restrict access to early retirement, draw up clear rules for the indexation of pensions, and promote the use of complementary savings schemes. Underpin pension reform with measures that promote the employability of older workers.	Older workers, retirees
Luxembourg	CSR n.2: Retirement	In view of ensuring fiscal sustainability, curb age-related expenditure by making long-term care more cost effective, pursue the pension reform so as to increase the effective retirement age, including by limiting early retirement, by aligning retirement age or pension benefits to change in life expectancy. Reinforce efforts to increase the participation rate of older workers, including by improving their employability through lifelong learning.	Older workers, retirees
Malta	CSR n.2: Retirement	To ensure the long-term sustainability of public finances continue the ongoing pension reform, such as by accelerating the already enacted increase in the statutory retirement age and by consecutively linking it to changes in life expectancy. Ensure that a comprehensive reform of the public health system delivers a cost effective and sustainable use of available resources, such as strengthening primary care	Older workers, retirees
Netherlands	CSR n.3: Retirement	Implement reforms of the second pillar of the pension system, ensuring an appropriate intra- and inter-generational distribution of costs and risks. Underpin the gradual increase of the statutory retirement age with measures to improve the employability of older workers. Implement the envisaged reform in the area of	Older workers, retirees

		long-term care with a view to ensure sustainability, while ensuring fair access and the quality of services and monitor its effects.	
Slovenia	CSR n.2: Retirement	Based on the public consultation, agree measures to ensure the sustainability of the pension system and adequacy of pensions beyond 2020, encompassing adjustments of key parameters, such as linking the statutory retirement age to gains in life expectancy and encouraging private contributions to the second pillar of the pension system. Contain age-related expenditure on long-term care by targeting benefits to those most in need and refocusing care provision from institutional to home care.	Older workers, retirees
2015			
Croatia	CSR n.2: Retirement	Discourage early retirement by raising penalties for early exits. Improve the adequacy and efficiency of pension spending by tightening the definition of arduous and hazardous professions. Tackle the fiscal risks in healthcare.	Older workers, retirees
Finland	CSR n.2: Retirement	Adopt the agreed pension reform and gradually cut out early exit pathways. Ensure effective design and implementation of the administrative reforms on municipal structure and social and healthcare services, with a view to increasing productivity and cost-effectiveness in the provision of public services, while ensuring their quality.	Older workers, retirees
Germany	CSR n.2: Retirement	Increase incentives for later retirement. Take measures to reduce high labour taxes and social security contributions, especially for low-wage earners, and address the impact of fiscal drag. Revise the fiscal treatment of mini-jobs to facilitate the transition to other forms of employment.	Older workers, retirees, low-wage earners
Latvia	CSR n.1: Retirement	Ensure that the deviation from the medium-term objective in 2015 and 2016 is limited to the allowance linked to the systemic pension reform.	Older workers, retirees
Lithuania	CSR n.3: Retirement	Adopt a comprehensive reform of the pension system that also addresses the challenge of pension adequacy. Improve the coverage and adequacy of unemployment benefits and cash social assistance and improve the employability of those looking for work.	Older workers, retirees

Luxembourg	CSR n.2: Retirement	Close the gap between the statutory and effective retirement age, by limiting early retirement and by linking statutory retirement age to life expectancy	
Malta	CSR n.3: Retirement	Accelerate the increase in the statutory retirement age and link it to life expectancy.	Older workers, retirees
Netherlands	CSR n.3: Retirement	Reduce the level of contributions to the second pillar of the pension system for those in the early years of working life.	Older workers, retirees
Poland	CSR n.2: Retirement and pension system	Start the process of aligning the pension arrangements for farmers and miners with those for other workers, and adopt a timetable for progressive full alignment; put in place a system for assessing and recording farmers' incomes.	Farmers and miners, low-wage earners, older workers

Source: Missoc comparative tables: 1 July 2015

Table C2: Eu member states policy measures

VI. Old-age Field of application	
Czech Republic	Compulsory participation of employees and self-employed, students who have studied prior to January 1, 2010, unemployed persons (under certain conditions), persons caring for children/helpless persons, people in military service etc.). Voluntary participation is available without restrictions to unemployed persons, students, persons employed abroad, foreigners working in the Czech Republic for a foreign employer and spouses of diplomats living abroad. Other persons over 18 years can participate in voluntary pension insurance, but in this case for a maximum of 15 years
Denmark	Social Pension (Folkepension): All resident nationals. Supplementary pension (arbejdsmarkedets tillægspension, ATP): Compulsory membership: * All employees from the age of 16 working 9 hours or more per week, as well as persons who receive daily allowances in case of sickness, birth, adoption, or unemployment or who have started participating in activation or training/ education measures or who are in a work placement according to the law on an active labour policy. Also beneficiaries of disability pension (førtidspension) granted since 1 January 2003 are included as compulsory members. * Beneficiaries of the guarantee of sufficient resources or other transfer income. Voluntary membership possible for: * Persons in early retirement and persons with a disability pension granted before 1 January 2003. * Employees who take up a self-employed activity may remain in the scheme on a voluntary basis if they have paid contributions for 3 years.
Estonia	1st pillar: All residents. 2nd pillar: Compulsory for persons born after 1 January 1983, no voluntary membership possible for those born before.
Germany	Compulsory for all employees and certain groups of the self-employed. Voluntary insurance possible for all persons over the age of 16 years resident in Germany and for all Germans abroad.
Latvia	1st pillar: All employees and self-employed. Voluntary membership possible. See Table I “Financing”, “Financing principle, 5. Old-age”. 2nd pillar: Compulsory for all insured persons born after 1 July 1971. Insured persons who were born between 2 July 1951 and 1 July 1971 may join the 2nd pillar pension scheme voluntarily.
Lithuania	Compulsory for all employees and for self-employed persons. Pension insurance on a voluntary basis possible.
Luxembourg	Compulsory insurance for employees or self-employed. Possibility of voluntary insurance and retroactive purchase of periods.
Malta	Employees and self-employed/self-occupied. Voluntary affiliation possible for single inactive persons.

	Government employees employed before 1979, and Police and Armed Forces Officers, are entitled to an Occupational Pension upon completion of 30 years of service for the former and 25 years for the latter.
Poland	Employees, self-employed, farmers and assimilated groups. Voluntary insurance is possible for persons who are not covered by the compulsory insurance scheme.

VI. Old-age Field of application	
Slovakia	1st pillar: Compulsory membership for: * those in employment or similar condition (for example a contract on working activity), * self-employed persons whose annual income exceeds 50% of national average wage, i.e. €4,944. Also insured are: * persons caring for a child or * persons receiving Attendance Service Benefit (Príspevok na opatrovanie), persons performing Personal Assistance Service (Osobnú asistenciu) monthly for at least 140 hours and persons receiving Maternity Benefit (Materské). Voluntary insurance is possible for persons over the age of 16 years who are permanent or temporary residents. 2nd pillar: Compulsory (i.e. no opt-out) membership for persons who voluntarily joined the scheme before the age of 35.
Slovenia	* Employees, self-employed, farmers, shareholders, managing personnel and persons performing work on the basis of another legal relationship, * Recipients of Unemployment Benefit (denarno nadomestilo za brezposelnost) and persons whose contributions for the pension and invalidity insurance are paid by the Employment Service until they have fulfilled the conditions for the entitlement to an old-age pension, * Persons entitled to compensation due to their temporary incapacity for work after the termination of their employment relationship, if they are not covered by the compulsory insurance on some other grounds, * Persons carrying out professional foster care, * Persons engaged in a religious office as religious workers, * Persons entitled to compensation during the occupational rehabilitation, * One of the parents in case of entitlement to: Parental Allowance (starševski dodatek) if the person is not covered by the compulsory insurance on some other grounds; to Partial Payments for Loss of Income (delno plačilo za izgubljeni dohodek): to a parental benefit and the person is not entitled to parental leave, as well as is not covered by the compulsory insurance on other grounds; to the payment of the proportionate part of contributions and to the right to work on a part-time basis for the care and protection of children to cover the difference to full-time work, * Family assistant entitled to Partial Payments for Loss of Income (delno plačilo za izgubljeni dohodek) (see Table XII "Long-term care"), * Soldiers engaged in a voluntary military service and citizens during the voluntary training for protection and rescue. Possibility of voluntary membership for persons above 15 years of age with permanent residence in the Republic of Slovenia and not fulfilling the conditions to be covered by the compulsory insurance.

Sweden	Everyone who has lived or worked in Sweden, on the understanding that the earnings-related supplementary pension (tilläggspension) can only be granted to people born before 1954.
The Netherlands	All residents under the legal retirement age. Persons under the legal retirement age who work in the Netherlands and pay tax on earned income are also insured.
United Kingdom	Basic State Pension: All employed and self-employed persons (except certain married women who chose before April 1977 to pay reduced-rate National Insurance (NI) contributions) who have paid or been credited with sufficient contributions for a required period. Voluntary contributions may be payable by people who have not paid or been credited with sufficient contributions in any year. Graduated Retirement Benefit: All employed persons who paid "graduated" (i.e. earnings-related) contributions between 6 April 1961 and 5 April 1975.

VI. Old-age Conditions 1. Qualifying period	
Denmark	Social Pension (Folkepension): At least three years of residence in Denmark between the ages of 15 and 65. Not nationals: 10 years of residence in Denmark, 5 years immediately before pension is payable. Supplementary pension (arbejdsmarkedets tillægspension, ATP): No minimum period of membership.
Finland	Statutory earnings-related pension (Työeläke): Employees: No qualifying period. National pension (Kansaneläke) and guarantee pension (Takuueläke): 3 years of residence in Finland after attaining the age of 16.
Sweden	None for the earnings-related old-age pension (inkomstpension) and the premium reserve pension (premiepension). Three years of pensionable income for the earnings-related supplementary pension (tilläggspension). Three years of residence in Sweden for the Guaranteed pension (garantipension).
VI. Old-age Benefits 1. Determining factors	
Belgium	The amount of earnings taken into account, the duration of insurance and family status.
Denmark	Social Pension (Folkepension): Duration of residence in Denmark between the ages of 15 and 65. Supplementary pension (arbejdsmarkedets tillægspension, ATP): Duration of membership in scheme and the contributions paid.
Finland	Statutory earnings-related pension (Työeläke): Pensionable earnings for each year, age-dependent accrual rate. National pension (Kansaneläke): Duration of residence in Finland, marital status and amount of other pensions based on employment.

	Guarantee pension (Takuueläke): The amount of the guarantee pension is affected by any other pension income from Finland or abroad.
Hugary	Social insurance Old-age Pension (Öregségi nyugdíj), benefits prior to retirement age (korhatár előtti ellátás) and 40 years' eligibility period for women (nők 40 év jogosultsági idővel): Average monthly net income and insurance period.
United Kingdom	Basic State Pension: Number of qualifying years. Graduated Retirement Benefit: Amount of contributions paid between 1961 and 1975. SERPS (State Earnings-Related Pension Scheme): Level of earnings (from 1978 to April 2002). State Second Pension: Level of earnings or whether they satisfy the conditions for getting State Second Pension as a carer or long-term sick/disabled person.
VI. Old-age Benefits 4. Non-contributory periods credited or taken into consideration	
Austria	As of 1 January 2005: Contribution periods for which publicly funded contributions are paid (no contributions by employees): * Child-raising periods (Kindererziehungszeiten) (maximum of 4 years per child, 5 years for multiple births). * Periods of military or war service and assimilated periods (e.g. periods of civil service). * Periods in which maternity benefit (Wochengeld) is received (periods of maternity leave). * Periods in which unemployment benefit (Arbeitslosengeld) or sickness benefits (Krankengeld) are received.With regard to insurance periods acquired prior to 1 January 2005 the above-mentioned periods are credited as non-contributory assimilated periods and assessed with the same value as the contribution periods (see above calculation basis) as well as for persons who had already reached the age of 50 on 1 January 2005 (unlimited). A set calculation basis (Bemessungsgrundlage) of €1,081.66 or €1,694.39 applies to child-raising periods.
Belgium	On the condition that certain legal conditions are met, the following periods of non-activity are generally taken into account: involuntary unemployment, unemployment with company supplement (complément d'entreprise/bedrijfstoeslag), certain periods of career interruption, incapacity for work, maternity rest, annual holiday periods, military service, recognised strikes, preventive detention, recognised studies, etc.
Bulgaria	First Pillar: The following periods are recognised as insurance periods even though the claimant has not made any contributions: * paid and unpaid leave for raising a young child. * paid and unpaid leave for temporary incapacity for work and for pregnancy and childbirth. * unpaid leave for up to 30 days during one calendar year. * during payment of unemployment benefit. * during which a person due to be reassigned to a different job on medical grounds does not work because the insurer has not provided him/her with work suited to his/her medical condition.

	* during which a parent (adoptive parent) or spouse has taken care of a person with reduced working capacity/ degree of disability of at least 90% and in need of permanent assistance. * conscription or peacetime national military/civilian service. * during which a non-working mother has raised a child up to 3 years of age. Second Pillar: No special provisions.
Croatia	Non-contributory credited periods only for entitlement to pensions: * periods completed in war as military personnel or servicemen, * periods of war or post-war political imprisonment. Non-contributory credited periods only for calculation of pensions: * fictive periods for calculation of disability or survivor's pension, if a person is under 60 years of age. Contributory credited periods for entitlement and for calculation of pensions: * Periods of absence from work for looking after a child: * for employed parents (contributions are paid by employer and from the State budget, 6 months each), * for unemployed parents in the first year after the birth of the child (contributions are paid from the State budget). * Periods of looking after an adult in need for person with status of carer according to the Social Welfare Act or other special law (contributions are paid from the State budget) * Periods of receipt of sickness benefits * Periods of receipt of unemployment benefits by a person who has acquired the right to benefits and who meets age requirements for the right to old-age pension, until fulfilling the first condition regarding the length of service for retirement but no longer than 5 years (contributions are paid from the State budget)
Cyprus	Assimilated insurance earnings for periods of: * unemployment, * incapacity, * maternity, * invalidity, * military service, * education, * parental leave, * child-raising of up to 156 weeks per child granted to women entitled to a pension after 31 December 1992, who failed to make contributions because they were raising children aged up to 12 years.
Czech Republic	Substitute insurance periods (determining the qualifying period and the amount of pension) are credited to: * full-time students (aged 18-26) at secondary school or university before 2010 (max. 6 years after the age of 18), * unemployed jobseekers registered at a Labour Office for the periods as long as they receive unemployment benefit plus another max. three years, but only one year for periods before the person reaches 55 years of age. * persons with reduced working capacity undergoing employment training, * persons on military or civilian service, * persons caring for a child up to the age of 4 years (10 years if the child suffers from a long-term severe disability that requires special care), * persons caring for a disabled person, and * recipients of the third degree invalidity pension (Invalidní důchod třetího stupně) till retirement age.

Denmark	No credited periods.
Estonia	1st pillar: Credited periods up to 31/12/1998, time spent: * being in compulsory military service or compulsory alternative service, if the person was called for service from Estonia or the person lived in Estonia before and after being called for service from abroad, * following full-time study, * receiving unemployment benefit or participating in labour market training, * working on a farm, * raising a child for at least up to 8 years of age, * being temporarily incapacitated for work, etc. Starting from 1/1/1999 the State pays Social Tax (sotsiaalmaks) for some categories of non-active persons (see Table I "Financing"). 2nd pillar: No credited periods, but see Table I “Financing”, “Public authorities’ participation”, 5. Old-age”.
Finland	Statutory earnings-related pension (Työeläke): Pension accrual for unpaid periods (i.e periods of earnings-related maternity-, paternity- and parental allowance, days with earnings-related unemployment allowance, job alternation leave, days with sickness allowance, compensation for loss of income as paid from workers' compensation and motor liability insurance, other periods with earnings-based daily allowances). The pension accrues on the earnings that are basis for the benefits. For minimum benefits as well as for studies and child home care a fixed monthly amount is used as an earnings base (€713.68 in 2015). Periods of studies and child home care are state-credited.
France	General pension scheme for employees (Régime général d'assurance vieillesse des travailleurs salariés, RGAVTS): * Periods during which are drawn sickness, maternity, invalidity, employment injury benefits (lifetime annuities in case of an incapacity over 66.66%) and of vocational rehabilitation; * Involuntary unemployment: between 1 and 5 years, depending on whether the unemployment was compensated or not; * Military service and detention pending judgement (under certain conditions); * “Maternity credit”: 1 year per child for the insured mother; * “Education credit”: 1 year per child conditionally granted to one of the insured parents; * Credit of max. 2 years insurance to take care of a severely disabled child; * Parental leave within a limit of 3 years; * Periods during which the allowance to prepare for retirement is paid to unemployed war veterans of North Africa; * Periods of anticipated retirement under certain conditions. Supplementary pension schemes for employees (ARRCO) and executives (AGIRC): Periods during which are drawn benefits for sickness, maternity, employment injury, invalidity, unemployment and early retirement; certain periods of war.
Germany	Accounted periods (Anrechnungszeiten): Periods of sickness, rehabilitation, unemployment, receipt of pensions, studies or higher education over 17 years of age. Substitute periods (Ersatzzeiten): Certain periods before 31/12/1991, e.g. times of military war service or of detention due to political reasons. Consideration periods (Berücksichtigungszeiten): Periods of child-raising up to the age of 10 years.

Greece	* Periods during which an invalidity pension is paid, * Periods during which a sickness benefit or an unemployment benefit has been granted, * Periods of participation in the Resistance during World War II. The periods are used only to assess entitlement to a pension and not for the calculation of the amount of pension payable. Periods of absence from work for looking after a child are treated as contributory. These periods are used both for assessing entitlement to a pension as well as for the calculation of the amount of pension payable. Periods of absence from work for looking after an adult in need: not applicable, except when caring for a child, spouse or sibling with disability (see Table VI "Conditions for drawing full pension").
Hungary	Social insurance Old-age Pension (Öregségi nyugdíj) and benefits prior to retirement age (korhatár előtti ellátás): * National military service, * periods of entitlement to Infant Care Allowance (Csecsemőgondozási díj), sickness benefit (Táppénz), work accident sick pay (Baleseti táppénz), child care fee (Gyermekgondozási díj), child home care allowance (gyermekgondozási segély), and child-raising support (gyermeknevelési támogatás), * periods of higher education, pursued prior to 1998. For 40 years' eligibility period for women (nők 40 év jogosultsági idővel): periods of receipt of Infant Care Allowance (Csecsemőgondozási díj), child care fee (Gyermekgondozási díj), child home care allowance (gyermekgondozási segély), child-raising support (gyermeknevelési támogatás), or nursing fee (Ápolási díj) for a severely disabled child.
Ireland	Credited contributions may be counted for determining the yearly average and therefore the rate of pension which may be payable. They may not be used to satisfy the basic qualifying period of 520 contributions condition. Subject to conditions, credited contributions may be awarded to: * Persons aged 16 to 66 years while in receipt of cash benefits for sickness, maternity, permanent disability, unemployment, work injury or retirement pension. * Insured persons registered as jobseekers or ill but not in receipt of a payment. Periods of up to 20 years spent by an insured person caring for children under 12 years or providing care to incapacitated persons of any age can be disregarded for calculating the yearly average, and therefore the rate of pension payable.
Italy	Periods of deemed contributions accrued during military service or while in receipt of sickness, maternity, unemployment (except for the unemployment benefit payable to atypical workers – see DIS-Coll under Table X) benefits or redundancy pay are all taken into consideration. Periods of absence from work for looking after a child or an adult in need of care are treated as contributory. Exception: deemed contributions are not taken into account if the pension is claimed at the age of 70 using the minimum qualifying period of 5 years (see Table VI, "Old-age, Conditions, 1. Qualifying period").
Latvia	* Child care periods for a child under 1.5 years of age, * period of receipt of Maternity Benefit (Maternitātes pabalsts) and Paternity Benefit (Paternitātes pabalsts), * period of receipt of Unemployment Benefit (Bezdarbnieka pabalsts), * period of receipt of Sickness Benefit (Slimības pabalsts), * periods of professional inactivity of disabled persons,

	* periods of professional inactivity of spouses residing abroad with their partners who are on diplomatic or consular duties or on military service, * period of receipt of child care benefit for adoptee, * period of receipt of Disabled child care allowance (Bērna invalīda kopšanas pabalsts), * period of performing paid temporary public works. The following periods are recognised prior to 1 January 1991: * compulsory military service, * studies at institutions of higher education, * child care by the mother until the child reached 8 years of age, * period of political repression, etc.
Lithuania	Non-contributory periods taken into consideration as credited periods: sickness, maternity (looking after a child), occupational rehabilitation, unemployment benefits and disability (or lost working capacity). These periods are taken into account for both determining the qualifying period for a pension and for the calculation of the amount of the pension. In cases of looking after an adult in need of care, the State pays social insurance pension contributions for caregivers. Thus these periods are treated as insurance and not credited periods.
Luxembourg	Periods for the rearing of children under the age of 6, education/training periods between the age of 18 and 27, periods during which a dependent person was cared for, periods during which an invalidity pension (pension d'invalidité) is granted, periods exempted from payment of contributions for the self-employed, etc.
Malta	Credited contributions in respect of periods of: * sickness; * widowhood: a widow is defined as a person who is not gainfully occupied, whether she is entitled to a pension in respect of widowhood or not, for any period during which she does not re-marry and provided her deceased husband had paid 156 weekly contributions prior to his death; * invalidity provided that the number of credited contribution does not exceed the number of contributions paid by the recipient after 1979; * unemployment, * injury, and * child-raising for parents born on or after 1st January 1962 when child is less than 6 years old (10 years if child is disabled). Credits are also awarded to ex-members of the Police Force, the Armed Forces, and the Civil Protection Department, carers, and voluntary workers.
Poland	* Sickness Allowance (Zasiłek chorobowy) payment, * Early Retirement Benefit (Świadczenie przedemerytalne), * university study, * military service, * periods of absence from work for looking after a child, Child-minding Allowance (Zasiłek opiekuńczy) from 1/01/1999. Periods of absence from work for looking after a child before 1/01/1999 are not treated as contributory. Periods of absence from work for looking after an adult in need of care (Child-minding allowance) are not treated as contributory. Non-contributory periods: during receipt of sickness benefit (zasiłek chorobowy), nursing benefits (świadczenie pielęgnacyjne), rehabilitation benefits (świadczenie rehabilitacyjne) etc. but these shall be limited to one-third of the contribution periods.

Portugal	Periods of sickness, maternity, unemployment, military service, compensation for inherent work risks, periods during which jury service is performed, periods spent caring for the children, periods in the Resistance. The referred periods are considered as working time and are taken into account when determining the qualifying period and for the calculation of the pension, except for the childcare leave (Licença para assistência a filho) which is only considered for the pension constitution rates only after having exhausted the parental leave.
Romania	Non-contributory credited periods are taken into consideration for calculation of both the contribution period and the amount of pension rights; these are periods of: * Long-term benefit payment: Invalidity Pension (pensie de invaliditate), * short-term benefit payment from 1 January 2005 onwards: e.g. Temporary Working Incapacity Benefit (indemnizatie pentru incapacitate temporara de munca) due to accidents at work and occupational diseases, short-term benefit payment from 1 January 2006 onwards for Leave to Rise a Disabled Child (concediu pentru creşterea copilului cu handicap) up to 3 years of age, etc., * full-time university courses attendance under graduation condition, * attendance at educational institutions in the field of defence, public order and national security, * conscript service or periods served as drafted, mobilised or prisoner of war. * other periods, stipulated by special legislation.
Slovakia	The following periods are credited by the State: * periods of receiving Maternity Benefit (Materské), * periods of sickness absence or periods of receiving Benefit for Care for a Sick Relative (Ošetrovné), * periods of caring for children up to the age of 6 years, * periods of caring for a long-term severely disabled child up to the age of 18 years or of an adult person or periods of providing personal assistance (Osobná asistencia) for at least 140 hours monthly or periods of receiving Attendance Service Benefit (Príspevok za opatrovanie), up to a maximum of 12 years. For periods of receiving Injury Annuity Benefit (Úrazová renta) before pensionable age, contributions are paid by the Social Insurance Agency (Sociálna poisťovňa). For persons insured before 2004 also other non-contributory periods (education, basic military service and unemployment) are taken into consideration.
Slovenia	Credited non-contributory periods no longer exist.
Spain	Among others, the first three years of parental leave (excedencia por cuidado de hijo) to bring up a child, and the first year of leave to take care of other relatives (Excedencia para el cuidado de familiares) who, on account of age, disease or incapacity, require constant assistance to carry out the most essential daily activities. They are considered as contributory for assessing the entitlement to a pension and for the calculation of the amount. In case of birth, a total of 112 full contribution days are calculated for each single child and 14 additional days for each child after the second, inclusive, in the event of a multiple birth, in case the woman was not working during that period. They are considered as contributory for assessing the entitlement to a pension and for the calculation of the amount if the birth took place during the calculation period.

	In case of termination of employment or termination of unemployment benefits occurring between nine months before the birth of a child or three months before permanent adoption or foster care, and the end of the sixth year after birth, adoption or foster care, a certain period of interrupted contribution will be considered as contributed. This period is 164 days (as for 2015) per child or minor adopted or fostered, and will increase annually up to 270 days per child in 2019. Only one parent will accrue this period for all purposes, except for compliance with the minimum contribution period required.
Sweden	Non-contributory periods taken into consideration are: * child care in the case of parents of small children, * national service or equivalent, * studies, * qualifying earnings in the case of recipients of income related Activity/sickness compensation (aktivitets-/sjukersättning). For the above-mentioned periods, the individual pays a contribution and the State always pays what remains up to 18.5%.
The Netherlands	Not applicable.
United Kingdom	Basic State Pension: For those who reached State Pension age on or before 5 April 2010: Number of years required for full basic State Pension was reduced by number of years (after 1978) spent at home caring for children or sick or disabled person (Home Responsibilities Protection, HRP). However, number of years required for full basic State Pension could not be reduced below 20 through HRP. For those reaching State Pension age on or after 6 April 2010: Contributions are credited for periods of receipt of Child Benefit for a child under age 12. In addition, for both groups, contributions are credited for periods of receipt of Carer's Allowance, Working Tax Credit, Statutory Maternity Pay, Statutory Adoption Pay, periods of incapacity and unemployment. Additional State Pension: Under the State Second Pension, certain carers and long-term ill or disabled people who satisfy certain conditions can be credited with contributions for periods when they cannot work.
VI. Old-age Benefits 8. Minimum pension	
Denmark	Social Pension (Folkepension): A factor of 1/40 of the basic amount = DKK 1,800 (€241) per year. Supplementary pension (arbejdsmarkedets tillægspension, ATP): DKK 2,500 (€335) per year.
Finland	Guarantee pension (Takuueläke) guarantees a minimum pension for residents with a small pension or with no other pension.
Italy	Persons insured before 1/1/1996: Annual amount of minimum pension (pensione minima): €6,531.07. The old-age pension (pensione di vecchiaia) is brought up to the amount of the minimum pension if the annual taxable income of the pensioner is less than 2 times the minimum pension. If the person is married, the old-age pension is brought up to the minimum amount if the annual taxable income is less than €26,124.28 i.e. 4 times the annual minimum pension. The supplement amounts to 70% if the annual

	family income is between €26,124.28 and €32,655.35, and to 40% for incomes between €32,655.35 and €39,186.42. No statutory minimum pension in case of pensions calculated in the defined contribution system.
Spain	Minimum pension (Pensión mínima): Dependent on residency. Monthly amounts (14 payments per year): * +65 years: €634.50 for single-person households; €782.90 or €601.90 for married beneficiaries, according to whether or not the spouse is dependent. * -65 years: €593.50 for single-person households; €733.80 or €560.80 for married beneficiaries, according to whether or not the spouse is dependent.
Sweden	No statutory minimum pension. Guaranteed pension (garantipension) for those who have a small or no pension. Full guaranteed pension amounts to 2.13 Price base amount, i.e. SEK 94,785 (€10,253) per year for a single person and to SEK 84,550 (€9,146) for a married person. For those who do not fulfil the requirements for the Guaranteed pension, there is also a maintenance support for the elderly (äldreförsörjningsstöd) above the age of 65. The maintenance support provides a reasonable standard of living after housing-costs are paid corresponding to 1.4468 Price base amounts for a single person (1.1191 Price base amounts for married or co-habiting persons).

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