

European Union pension systems Adequate and sustainable?

SUMMARY

One in four European Union (EU) citizens currently depend on their pension income. Younger citizens will one day benefit from pensions too. And they also have an immediate interest, as the taxes and social security contributions working age people pay help support current pensioners. However, pensions are one of the biggest public expenditure items in the EU and as the EU population ages due to lower birth rates and increasing longevity, pension systems have come under increasing pressure.

Since its inception in 2011, the European Semester process has resulted in a pension-related Country Specific Recommendation (CSR) for a majority of Member States every year. And the 2015 Ageing Report shows there has been good progress in making pension systems more sustainable.

Overall EU spending on public pensions as a percentage of GDP is now expected to be similar in 2060 to today's level, despite demographic ageing. But pensions also need to be adequate and the recently published 2015 Pension Adequacy Report (PAR) gives a comprehensive picture of this both now and in the future. Whilst acceptable levels of adequacy have largely been maintained for current pensioners, this is not the case everywhere or for all groups (e.g. women are at greater risk of inadequate retirement income). And as the impact of pension reforms feeds through, there are some challenges to be faced if the growing numbers of future EU pensioners are to avoid poverty or large falls in their income on retirement.



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Glossary

Adequacy: The adequacy of pensions is measured by their ability to prevent poverty, the degree to which they match the level of pre-retirement income and how they compare to the average incomes of people below pensionable age.

Funded (i.e. pre-funded) schemes: Pensions in which contributions are invested over time and then used to pay pension benefits in the future. Most occupational pensions are funded.

Pay-as-you-go (PAYG): Revenue from current contributions used directly to pay for current retirement benefits, so they are not pre-funded, barring, in some cases, small reserve funds. Most public pension schemes are PAYG.

Sustainability: The sustainability of pensions relates to the fiscal and financial balance between revenues and liabilities (and the ratio of workers-contributors to pensioners-beneficiaries).

Taxonomy: A typical three-pillar approach is below. More on pension taxonomies can be found in a 2014 European Parliament [study](#) on Pension Schemes.

'First pillar' (public) pensions: Public statutory pensions administered by the state and usually financed from social insurance contributions and/or general tax revenues on a PAYG basis. In central and eastern European Member States in particular, **statutory mandatory funded individual plans, (pillar 1b pensions)**, have been introduced alongside pillar I.

'Second pillar' (occupational) pensions: Private supplementary plans linked to an employment relationship. Contributions are made by employers and/or employees, often with state support via tax advantages. These plans may be mandatory or quasi-mandatory and commonly established via employment contracts or by social partners in sector or profession based collective agreements. Normally pre-funded.

'Third pillar' (personal) pensions: Personal pensions, that is pre-funded private voluntary supplementary plans in which contributions are invested in an individual account managed by a pension fund or financial institution. They may be tax-incentivised.

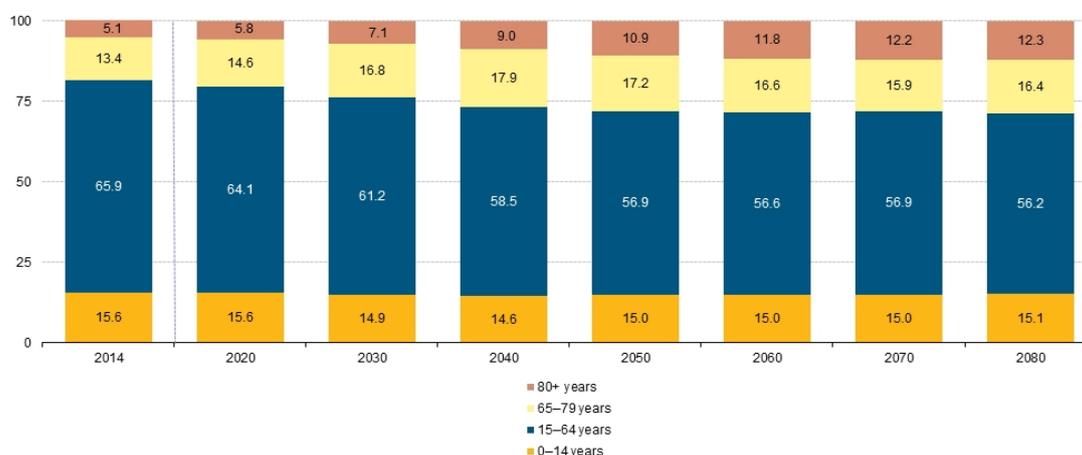
Background

Ageing demographics

The population in the European Union (EU) is ageing due to a combination of increasing longevity and low birth rates. As Figure 1 shows, those aged over 65 are becoming a much more significant group, whilst the 15-64 age group is shrinking.

As a result the EU is projected to move from around four working-age (15-64) people for every person aged over 65 years, to just two by 2060.

Figure 1 – Population structure by age groups, EU-28, 2014–2080 (1) (% of total population)



Data source: [Eurostat](#), July 2015.

Adequate and sustainable pensions

There is **limited EU level competence on pension systems**, as these are largely for the Member States to determine. With pillar I (public) pensions the EU role is essentially limited to ensuring that people exercising their right to free movement do not lose out, plus some anti-discrimination provisions. On top of these aspects, there are further rules covering pillar II (occupational) and III (personal) pensions, given their pre-funded nature and interactions with the single market. In essence these rules relate to minimum prudential standards and worker and consumer protection.

However, there are also initiatives at EU level to encourage voluntary sharing of best practice and develop common objectives and indicators. Fiscal rules and notably the [European Semester](#) process (see below) can also bring pensions into the EU level ambit.

The **European Commission** in its [Green Paper](#) on pensions has pointed out the importance of pension systems being both adequate and sustainable. For instance it highlights the risk that inadequate pensions may, through public pressure, lead to ad hoc increases in pensions or other support, jeopardising sustainability. Similarly unaffordable pension systems that are not reformed will ultimately collapse under the weight of ageing populations, and so prove inadequate.

Following this major consultation, the Commission set out its definitive vision on pensions in its 2012 [White Paper](#) 'An Agenda for Adequate, Safe and Sustainable Pensions'.

The two main themes to ensure pensions were adequate and sustainable were:

- Better balancing the time spent in work and retirement; and
- Developing complementary private retirement savings.

These policy prescriptions were generally welcomed, including by the **European Parliament** in its [resolution](#) on the White Paper. **Member States** were also generally in agreement with the importance and general direction of necessary pension reforms, as for instance as evidenced in [Council conclusions](#) highlighting these themes.

For the social partners, **BusinessEurope's** [position](#) paper also welcomed the need for longer working lives in view of increasing longevity, alongside efforts to increase employment and support complementary saving. The **ETUC's** [position](#) on the White Paper, whilst generally welcoming of the analysis, was more critical. It felt the focus on the macroeconomic aspects ignored the social purpose of pensions and the importance of solidarity and pension adequacy.

AGE Platform Europe (a network of EU organisations representing people aged 50 plus), in a [letter](#) to the Parliament's rapporteur on the White Paper, stressed the need for a broader focus, with more emphasis on adequacy especially for vulnerable groups.

European Semester process and pension recommendations

From the first European Semester¹ process in 2011, between 14 and 17 of the Member States receiving Country Specific Recommendations (CSRs) had one relating to pensions.² Between two and five further Member States³ did not receive specific CSRs in some years due to being covered instead by Decisions and Memoranda of Understanding (MoU) or Economic Adjustment Programmes (EAP) as part of financial assistance programmes. These separate arrangements typically included commitments to pension reforms. Excluding countries covered by MoU/EAP, only five⁴ Member States

have never had a pension related CSR since the Semester process began, whilst ten⁵ have had some kind of pension-related recommendation every year.⁶

The Commission's CSR proposals on pensions and their subsequent endorsement by the Council, together with the separate pension reform commitments made under the MoU/EAPs, shows the clear support at EU level to encourage the reform of pension systems.

Over the five Semesters so far, there have been a broad range of pension-related CSRs agreed. Relatively frequent elements 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;
- Limiting early retirement and integrating special pension schemes into the mainstream;
- Increasing the employability and participation of older workers, including life-long learning and active ageing;
- Promoting active labour markets including for older groups; and
- Encouraging private saving.

Pension reform trends and consequences for adequacy and sustainability

Broadly successful efforts to ensure sustainability

National pension reforms in the EU have sought to respond to increasing longevity and demographic pressures, albeit at different speeds and according to specific national circumstances. In general, attempting to increase effective⁷ retirement age has been a centrepiece of national efforts. According to projections in the [2015 Ageing Report](#) (see box), pension reforms result in an average increase of about 2.5 years in the effective retirement age for men and about 3 years for women.⁸

Specific measures behind this generally line up with themes emerging at EU level and help to ensure pensions are more sustainable, whilst seeking at the same time to protect adequacy. For instance, requiring longer contribution periods for a full pension, tightening up of early retirement schemes and increasing statutory retirement ages (including equalising women's pension ages with men's), in some cases with linking

2015 Ageing Report and the sustainability of pensions

This tri-annual [report](#), jointly produced by the European Commission and the Economic Policy Committee, sets out long-term budgetary projections based on the latest population projections.

The detailed analysis helps to answer the question 'are pension systems sustainable?' amongst others.

In the [2009 report](#), average pension expenditure for the EU-27 was 10.2 percentage points (p.p.) of GDP in 2007 (national variance 5.2 - 14 p.p.). And it was forecast to increase by 2.4 p.p. of GDP by 2060. At Member State level, 8 Member States had increases of over 5 p.p. with 3 of these over 10 p.p.

In the [2012 report](#), average pension expenditure for the EU-27 was 11.3 p.p. of GDP in 2010 (national variance 6.8 - 15.3 p.p.) whilst the EU increase in pension expenditure was forecast at 1.5 p.p. of GDP. Six Member States were expecting increases of over 5 p.p. of which the highest was 9.4 p.p.

In the 2015 report average pension expenditure for the EU-28 was 11.3 p.p. of GDP in 2013 (national variance 6.9 - 15.7 p.p.). The report showed further progress on sustainability, with EU pension expenditure forecast to fall slightly by 0.2 p.p. of GDP by 2060. 4.1 p.p. is the highest increase forecast, whilst 15 Member States are expected to see a decrease in the long term.

to longevity changes in the future.⁹ Alongside these are efforts to support active and healthy ageing, lifelong learning and older people's employment, including combining work with drawing a pension – all designed to support adequacy and sustainability through enabling longer working lives. Some Member States hit hard by the economic crisis have also cut pensions in payment, increased taxes or reduced indexation of pensions in order to support sustainability, including more immediately, albeit at some cost to adequacy in some cases.

There have been only very limited recent reforms aimed at increasing pre-funded pension savings such as [occupational pensions](#). And some Member States have partially or fully reversed earlier reforms which sought to shift some contributions from going to public (pillar I) PAYG pensions into pre-funded statutory pension schemes (pillar Ib) instead. Nonetheless as pre-funded schemes mature (and in limited cases expand) they will provide a bigger share of overall pension income in 15 Member States according to one key measure.¹⁰ This supplementary pension income will therefore be increasingly important in supporting adequacy and off-setting reductions in PAYG pension entitlements.

Overall, these changes have generally been successful in tackling what were seen as unsustainable increases in pension expenditure (see box on 2015 Ageing Report).

Pension adequacy largely maintained but declining in future and with more risks

Adequacy focuses not only on the key task of avoiding poverty in old age, but also on broadly maintaining pre-retirement living standards for those further up the income scale and comparing the situation of older people with the rest of the population. Some groups may face particular challenges. Women are one such, given their typically lower pension income (largely reflecting their different labour market experiences) and likelihood of longer retirements due to often retiring earlier than men and living longer on average. Older pensioners are also usually more at risk as a result of pension indexation not always keeping up with the income of the wider population and as other resources pensioners may draw on (e.g. savings) become depleted over time.

Measuring pension adequacy is difficult given its multi-faceted nature (see Annex for more on the various dimensions of

2015 Pension Adequacy Report

This tri-annual report, jointly produced by the Commission and the Social Protection Committee, analyses the future risks to adequate old-age incomes.

The [2012 report](#), noted retired Europeans enjoy living standards close to those of the rest of the population. However, according to one key measure, better sustainability had come at some cost to future adequacy. Given the reforms made, adequacy outcomes would be contingent on changes in people's retirement and long-term savings behaviour in order to recoup some of the decline in adequacy.

The 2015 report shows that current pensioners' living standards have largely been maintained over the crisis. On average across the EU-28 the median disposable income of people aged 65+ is 93% of those aged under 65 (though in eight Member States it is below 80% whilst it is above 100% in six). On poverty, in 22 Member States older people actually have a lower risk of poverty or social exclusion than the rest of the population.

Future pensioners can typically expect less from the public (pillar I) pension when they retire, mitigated to some extent in some Member States by increases in pre-funded statutory pension schemes (pillar Ib) and occupational (pillar II) pensions. The report also highlights the increased importance of people having longer and less interrupted careers and opportunities to save in order to have acceptable retirement outcomes.

adequacy and the metrics used). However, the Commission's [2015 Pension Adequacy Report](#) (PAR – see box) takes a comprehensive look at adequacy across a range of metrics.

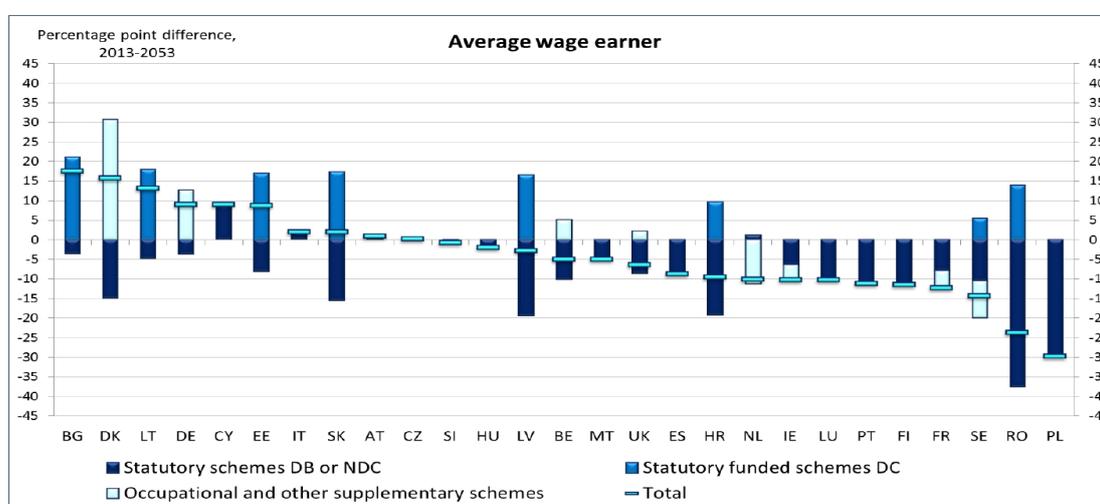
On average, current pensioners have broadly seen their living standards maintained, albeit this hides considerable variance between and within Member States. Some groups (women, older pensioners, pensioners living alone, those who had atypical careers) in particular remain at risk. Women's average pension income is lower than men's in all Member States and for the EU as a whole the gender pension gap is 40% (weighted average).

Looking at future adequacy, current and prospective Theoretical Replacement Rates (TRRs – see Annex) is a key measure, based on a set of representative examples (or 'cases') with various assumptions e.g. uninterrupted 40-year career from age 25. Prospective TRRs for 2053 show a decline in PAYG public pensions (pillar I) in 22 Member States. For an average wage earner, reductions of more than five percentage points (p.p.) are projected in 16 Member States, with 15 p.p. reductions in six Member States.¹¹ This may be at least partly compensated for by pre-funded statutory pension schemes (pillar Ib) in eight Member States,¹² whilst occupational (pillar II) and personal (pillar III) pensions will also help mitigate the public pension reductions in a further four Member States.¹³ A greater reliance on such pensions can, however, also bring increased risks to future pensioners' incomes depending e.g. on the safety, charges, return on investments and pay-out phase design that the particular schemes may have.

Overall more than half of the Member States can expect lower TRRs for average wage earners in 2053 than in 2013. Figure 2 sets this out graphically, for an uninterrupted career of 40 years until the national standard retirement age. A positive difference indicates a higher gross TRR in 2053 as compared to 2013.

Looking at different levels of wage earners, average wage earners are typically less impacted by the changes than lower and higher wage earners. This implies higher wage earners may need to consider additional savings (or still longer careers) if they want to maintain their lifestyles as effectively as they do today. Lower wage earners also do less

Figure 2 – Percentage points difference between 2013 and 2053 in gross TRRs, by type of pension



Note: 2013 data for EL not available. If gender differences exist, results for men reported in this figure.

Data source: [2015 Pension Adequacy Report](#), 2015.

well than average wage earners from changes in replacement rates in a number of Member States, albeit their absolute replacement rates are generally better, reflecting Member States' actions to combat poverty.

A major plank of pension reforms has been rebalancing time in retirement and time in work, recognising increasing longevity. As the PAR points out, this may give a 'win-win' of lowering costs whilst developing extra revenues thereby allowing sustainability to be addressed whilst protecting adequacy. However, as the PAR also notes, this does expose people to greater risk of inadequate pensions if they are unable, or lack the support, to have longer and less interrupted working careers and make the necessary pension contributions. Early retirements, late starts to careers (e.g. due to youth unemployment) and significant periods out of the labour market will therefore all take their toll on pension adequacy.

Different examples ('cases' with different hypothetical assumptions) of TRRs in the PAR show that working longer can have a positive impact on retirement income in most Member States. The PAR projects that working two years past the standard pensionable results in an increase in net replacement rates of at least five p.p. in 14¹⁴ Member States for those on average earnings. On the other hand retiring two years before the standard pension age can result in substantial drops in TRRs in the majority of Member States in future. In the different TRR examples of having to retire five years early due to disability and in particular retiring five years early due to unemployment also have a negative impact on the pension.

However, the most substantial drops come when looking at the TRR example assuming a shorter career (30 years) due to a 10-year career break from age 45 during which there are no contributions to the pension system or credits to the pension granted. In 23 Member States such a career would see a fall in TRR of more than 10 p.p., with five Member States seeing falls of over 20 p.p. An example assuming a shorter career break of three years during the working life, whether due to unemployment or childcare, will, however, usually only lead to small reductions.

There are of course implications in these developments for some groups at risk of inadequate retirement income, notably women. As the changes in women's role in the labour market feeds through into their pension entitlements, some of the adequacy problems faced by current women pensioners may fade. However, pension reforms emphasis on longer careers, the impact of career breaks, stronger links between pensions and contribution levels and more pre-funding may all impact on the gender aspects of pensions.

Indications of future reform needs and implications for coming Semester

Given the growing reliance on fuller careers to ensure adequate retirements, the success of complementary measures focussed on the labour market which enable and encourage people to spend more years of their lives in employment will be key.

The 2015 PAR points to the importance of the right incentives to ensure it is worthwhile for people to have longer careers. However, it also highlights the need to enable longer working lives. This involves active and healthy ageing, health and safety and work, inspiring employers to value and invest in older workers and providing environments and flexible working arrangements suited to an older workforce with longer careers. Developing and maintaining skills via life-long learning and opportunities to vary tasks

and careers can help people to stay in work. According to some, ageing demographics can also be an opportunity for new approaches by developing a '[silver economy](#)'.

Opportunities for young people are also important; they need to be enabled and supported so they can start working and contributing to pensions once they have completed their studies. And women's future pensions will benefit from labour market measures to reduce the gender pay gap and enable their full participation in the labour market via childcare and other support. Pension policies, such as those around credits for periods of caring responsibility (falling disproportionately on women) may also need adjusting.

A greater role for pre-funded pension schemes,¹⁵ whilst helping to offset falls in PAYG pensions for some pensioners in some Member States, can also increase risks. Around half of Member States will see overall retirement incomes more dependent on financial markets in the future than is the case today. The TRR calculations make uniform assumptions as to the returns on these investments. However, the actual returns of the pre-funded pensions and how they are designed to mitigate risks and interact with the wider national pension and tax system will be crucial in determining how much they support adequacy.

Notwithstanding all these efforts, the PAR also argues that poverty protection will still be required for some people who will for a variety of reasons be unable to achieve the necessary career length and contributions. These protections need to be carefully designed to avoid disincentives for full careers for those able to achieve them. More emphasis, and resources, may need to be focussed on poverty avoidance for the future.

The **European Parliament's view**, for instance as expressed in its [own initiative resolution](#) of 11 March 2015 on social aspects in the 2015 Annual Growth Survey (AGS), stressed the need to develop employment opportunities for older and young workers in order to contribute to a sustainable pensions system, whilst reducing early exits and incentivising staying in work. It also highlighted the need for life-long learning, active and healthy ageing and compensation for time spent with caring responsibilities. The key role of social partners and the importance of intergenerational fairness in reforming pension systems were also underscored.

Main references

[The 2015 Pension Adequacy Report: current and future income adequacy in old age in the EU, Volume I](#), European Commission and Social Protection Committee, October 2015.

[The 2015 Ageing Report, Economic and budgetary projections for the 28 EU Member States \(2013-2060\)](#), European Commission and Economic Policies Committee, European Economy 3/2015, May 2015.

[Country Specific Recommendations 2015](#).

Endnotes

¹ 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 them proposing 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 own initiative reports on the Semester.

² Author's judgement on what to include as qualifying as 'pension-related', though totals essentially consistent with others e.g. [Commission summary table](#) in 2015 and [ETUI analysis](#).

³ 2011: 5 (Greece, Ireland, Latvia, Portugal, Romania) 2012: 4 (Greece, Ireland, Portugal, Romania) 2013: 4 (Cyprus, Greece, Ireland, Portugal) 2014 and 2015: 2 (Cyprus, Greece).

- ⁴ Estonia, Hungary, Italy, Sweden and the United Kingdom. Based on author's assessment of 'pension-related' CSRs result consistent with European Commission Pension Adequacy Report.
- ⁵ Austria, Belgium, France, Finland, Lithuania, Luxembourg, Malta, Netherlands, Poland and Slovenia. Based on author's assessment of 'pension-related' CSRs.
- ⁶ More information on the specific recommendations by country is available in EP studies ([2011-2014](#) and [2014-2015](#)).
- ⁷ The actual age at which people retire, which is often earlier than the statutory pension age.
- ⁸ As women are also impacted by the equalisation of men's and women's statutory pension age which involves harmonising at the higher (male) age.
- ⁹ See Ageing Report Box II.1.1. page 60 for Member States which have introduced various balancing or sustainability mechanisms.
- ¹⁰ According to the PAR, page 261, Theoretical Replacement Rates (TRRs) 'depicting the relative importance of pay-as-you-go and prefunded schemes in the future package of pension incomes for average earners show an increase in the role of prefunded schemes in 15 Member States. In 8 countries this is due to the expansion of mandatory private pensions, whereas in 7 occupational schemes are gaining a larger role.'
- ¹¹ Denmark, Slovakia, Latvia, Croatia, Romania and Poland.
- ¹² Bulgaria, Lithuania, Estonia, Slovakia, Latvia, Croatia, Sweden and Romania.
- ¹³ Denmark, Germany, Belgium and the United Kingdom. See PAR page 216.
- ¹⁴ Portugal, Hungary, Estonia, Lithuania, Germany, Czech Republic, the Netherlands, Austria, Slovakia, Slovenia, Latvia, Finland, Denmark and Luxembourg.
- ¹⁵ For more see, for instance, text on page 245 of the PAR and box 5.4.

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Annex – Metrics for pension adequacy

Measures of adequacy need to consider both the situation of current pensioners and those in the future as reforms gradually feed through. The latter can be especially difficult given the need to estimate the likelihood of people being able and willing to mitigate the impact of pension reforms (for instance by working longer when pension ages are raised, or by saving more during their working lives).

Measuring pension adequacy is challenging and has a number of dimensions. These include pension income from all three pension pillars, other sources of income and wealth for older people (e.g. work, housing) tax treatment and older peoples' access to services and goods in kind provided by Member States. Safety net minimum income provisions for those people who were unable to qualify for sufficient pension income are also very relevant particularly in combatting poverty in old age. Some key metrics include:

- **Poverty**

- People age 65+ [at risk of poverty](#) (below 60% of median income); and
- The share of people living in [severe material deprivation](#).

For the Europe 2020 poverty reduction target these are combined into the '[at risk of poverty or social exclusion](#)' measure. This can also look at older cohorts (e.g. age 75+) to see how poverty and social exclusion develops amongst older retirees who are generally more at risk.

- **Pension-related employment challenge**

- [Employment rate of older \(55 – 64\) workers](#);
- Average [duration of working life](#) (as this also covers employment entry ages and the stability of employment over the working life, this is considered to have wider relevance as it better relates to the balance between time in work and time in retirement).

- **Current pensioners' income**

- [Relative median income ratio](#) (which compares the median disposable income of those aged 65 and over to the median disposable income of those below 65 of age);
- [Aggregate replacement ratio](#) (the median individual gross pension, including old-age and other pension benefits, of people aged 65-74 relative to the median individual gross earnings of people aged 50-59, excluding other social benefits);
- Theoretical Replacement Rate (TRR – a key measure defined as the level of pension income the first year after retirement as a percentage of individual earnings at the moment of take-up of pensions. It uses a number of representative examples ['cases'] based on assumed career paths e.g. average wage earners retiring at 65 after 40 years of work and contributions. More information is found in the PAR, Annex 3, page 281).

- **Future pensioners' income**

- Prospective TRR¹⁶ (i.e. using representative cases, as with current TRRs [see above] under the terms of today's pension legislation, with projected economic and demographic circumstances);
- Current and projected Benefit Ratio (average benefit of public pension or public and private pensions, respectively, as a share of the economy-wide average wage [gross wages and salaries in relation to employees]);
- Current and projected gross Average Replacement Rate (the average first pension as a share of the economy-wide average wage at retirement).

- **Inequalities**

- Gender pension gap (% by which women's average pension is lower than men's);
- Inequality of income distribution (S80/S20 indicator compares the average income of the 20% richest to the 20% poorest, in this case for those aged 65+).

Other adequacy measures can of course be split by gender, or different ages to better understand dispersion of risks.

Measures of adequacy continue to develop. Notably debate persists on the [limitations](#) of TRRs in particular and potential [improvements](#) that could be made.