

# Beyond retirement: a closer look at the very old

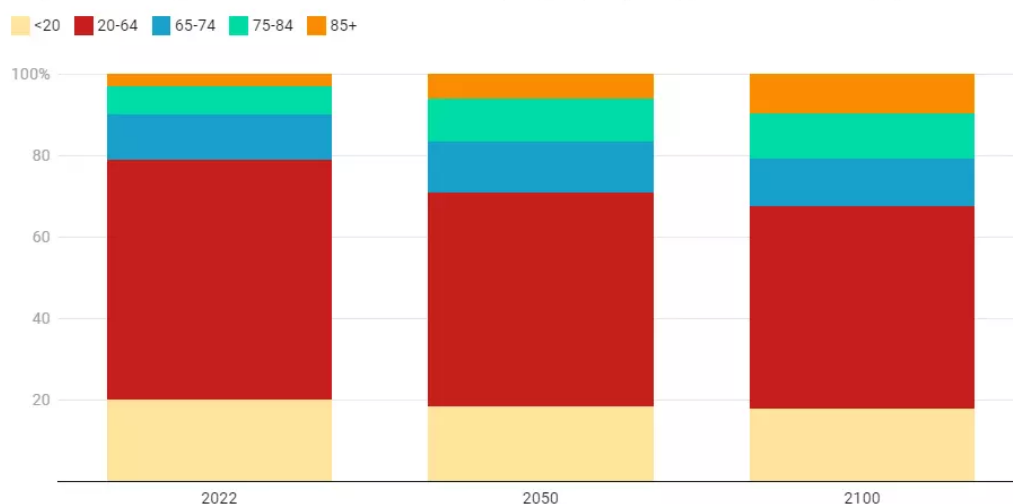
The European Union should start to prepare for those over 85 making up 10 percent of the population in 2100

David Pinkus, Nina Ruer

Population ageing will have significant structural impacts on European economies. The gradual retirement of the large baby-boomer generation – those born between 1946 and 1964 – will widely impact European Union policy. The green and digital transition will not succeed without taking into account an ageing and changing workforce. While increasing life expectancy is welcome as a victory of past policy efforts, coupled with other factors, it does present a series of challenges.

The most obvious area that will be affected by an ageing population is pension policy. The old-age dependency ratio, measures the number of people aged 65 and more relative to the working-age population (aged 20-64). This ratio is increasing in the EU, projected to increase from 36 percent in 2022 to 55 percent in 2050 and 65 percent in 2100<sup>1</sup>. While there were approximately 2.7 workers per elderly person in the EU in 2022, the number will fall to approximately 1.5 in 2100.

It makes sense to focus on those aged 65+ in the context of pension policy since retirement ages in most EU countries are around that threshold. However, it is important to look beyond retirement and show that the growth of the elderly population in the EU will be driven by those aged 85+<sup>2</sup> – the very old. Figure 1 shows the projected age composition of the EU population. The data clearly shows that 85+ is the fastest-growing age group in the EU. In 2022, 2.9 percent of people in the EU were 85 or older. This share is projected to more than double by 2050, and almost triple by 2100, reaching almost 10 percent of the total population.

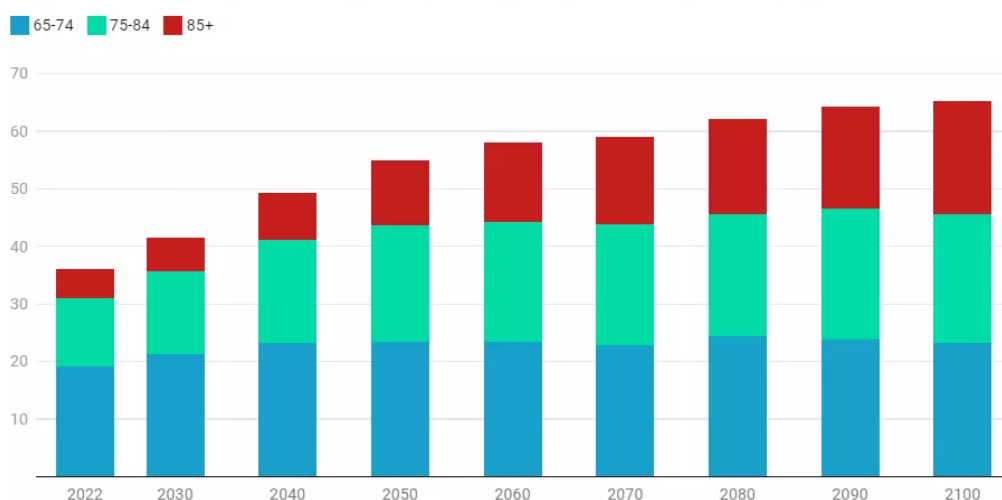
**Figure 1: Population shares in the EU, by age group, 2022-2100 (%)**

Source: Bruegel based on Eurostat. • Created with [Datawrapper](#)

### The very old are driving the increase in the old-age dependency ratio

Three factors explain the rising old-age dependency ratio. First, life expectancy is increasing. Second, the working-age population will shrink significantly between 2022 and 2070, as fertility rates will remain below the natural replacement rate. Third, projected net migration flows will not offset the ageing trend in the population (European Commission, 2021c).

Figure 2 shows clearly that the projected increase in the old-age dependency ratio over the long-term will be driven mostly by the very old. The ratio of people aged 85 and older, relative to the working-age population, is projected to rise by almost 15 percentage points (from 5 percent to 19.7 percent) between 2022 and 2100. This projected increase significantly outpaces those of 65-74 and 75-84 age brackets. Figure 2 thus illustrates a significant shift from younger to older retirees. By the year 2100, each age category over 65 (65-74, 75-84 and 85+) will represent approximately one-third of the elderly, contrasting the dominance of those aged 65-74 today.

**Figure 2: Decomposition of the old-age dependency ratio (%)**

Source: Bruegel based on Eurostat. Note: the age categories are all divided by the total number of working-age population (aged 20-64) in the EU in a given year. • Created with [Datawrapper](#)

### Differences between EU countries

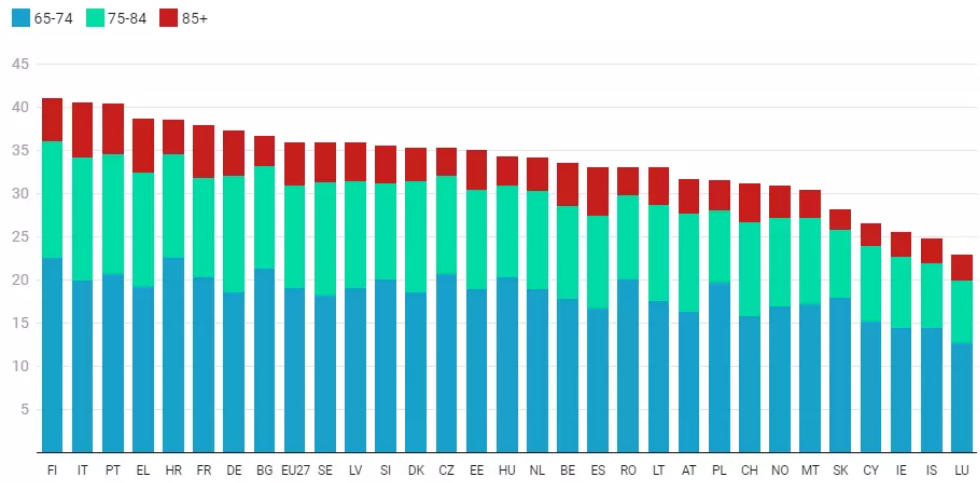
In 2022, Finland had the highest old-age dependency ratio (41 percent), while Luxembourg had the lowest (23 percent). Italy, Portugal and Greece had some of the highest overall ratios, as well as the highest shares of people aged 85+ relative to working-age people, reflecting an older population profile in Southern Europe (Figure 3, Panel A).

There is also substantial variation in how the dependency ratio and its composition are projected to evolve (Figure 3, Panel B). While some countries with relatively low dependency ratios will see those ratios increase the most, such as Ireland and Luxembourg, this pattern will not be seen in all countries. The dependency ratio is projected to increase by at least 25 percentage points between 2022 and 2100 in all countries except Portugal, Germany, Sweden and Czechia. Its increase is projected to be highest in Malta (43 percentage points). While Portugal and Italy had similar aggregate ratios in 2022, its growth in Italy is projected to be much higher.

Despite differences, there will be a common trend in EU countries: the 85+ population is projected to increase most relative to the working-age population in all EU countries between 2022 and 2100. While in 2022 over half of people over 64 were between 65-74 years old in all but three EU countries, this is projected to be the case in only four EU countries in 2050, and no member state by 2100.

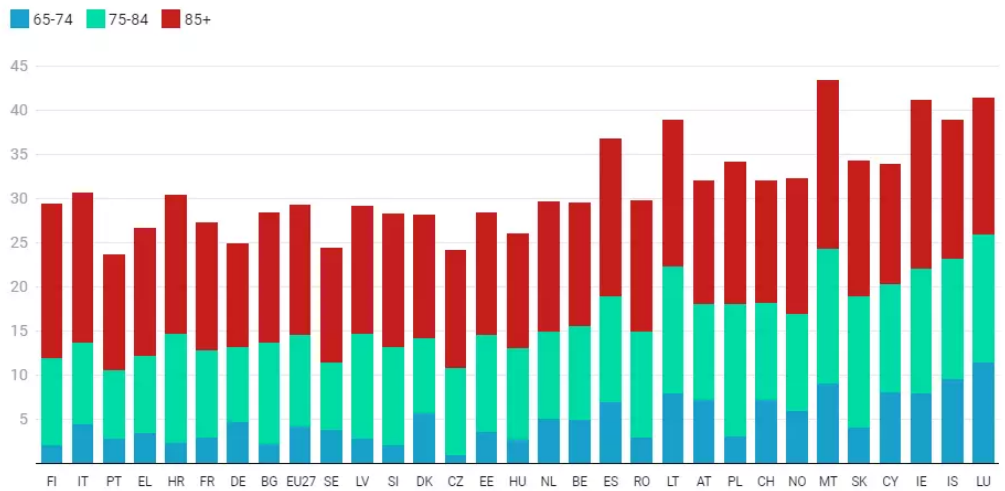
**Figure 3: Old-age dependency ratios, EU countries**

Panel A: Old-age dependency ratios in 2022 (%)



Source: Bruegel based on Eurostat. • Created with [Datavrapper](#)

Panel B: Percentage point change 2022-2100

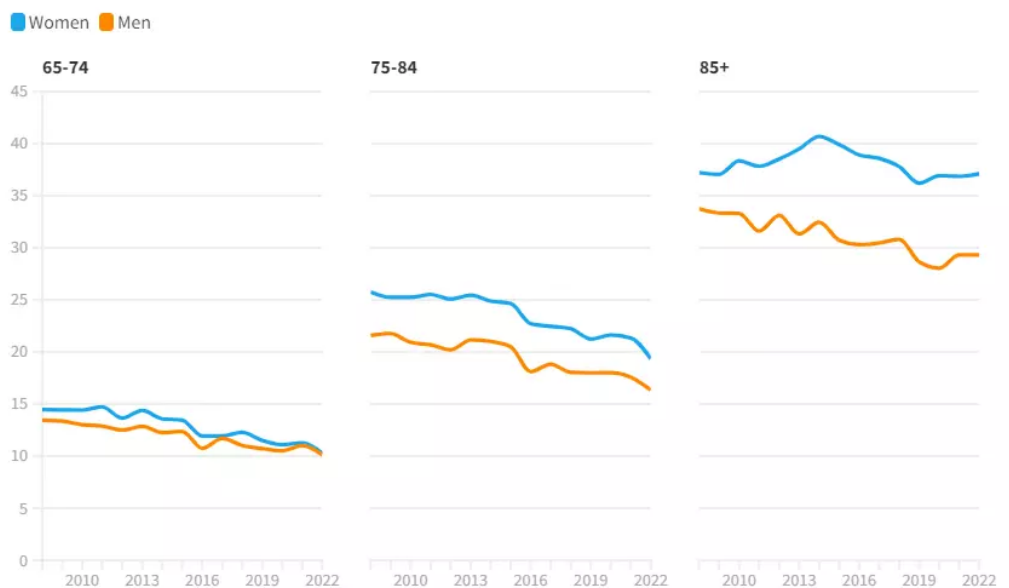


Source: Bruegel based on Eurostat. • Created with [Datavrapper](#)

## Policy implications for social-security – and other – systems

The growing share of the very old will have consequences for social-security systems beyond pensions. There is a clear correlation between age and the likelihood of facing physical limitations, particularly for women (Figure 4). Therefore, the surge in the 85+ population will lead to a surge in people needing long-term care (LTC)<sup>3</sup> (Belmonte *et al*, 2023). While there has been a steady decrease in the share of people in the EU aged 65-74 and 75-84 with a severe activity limitation, the downward trend has stagnated for those aged 85+ since the onset of the COVID-19 pandemic in 2020. Moreover, demand for LTC already exceeds supply in many EU countries. This supply shortage is likely to worsen given the projected relative decline in working-age populations (Figure 1). Shortage of formal care workers is already evident in many EU countries, with, for example, nursing professionals ranking highest among the occupations experiencing labour shortages in the EU in 2020 (European Commission, 2020; 2021 a).

**Figure 4: Percentage of persons per age group with severe activity limitations, by gender**



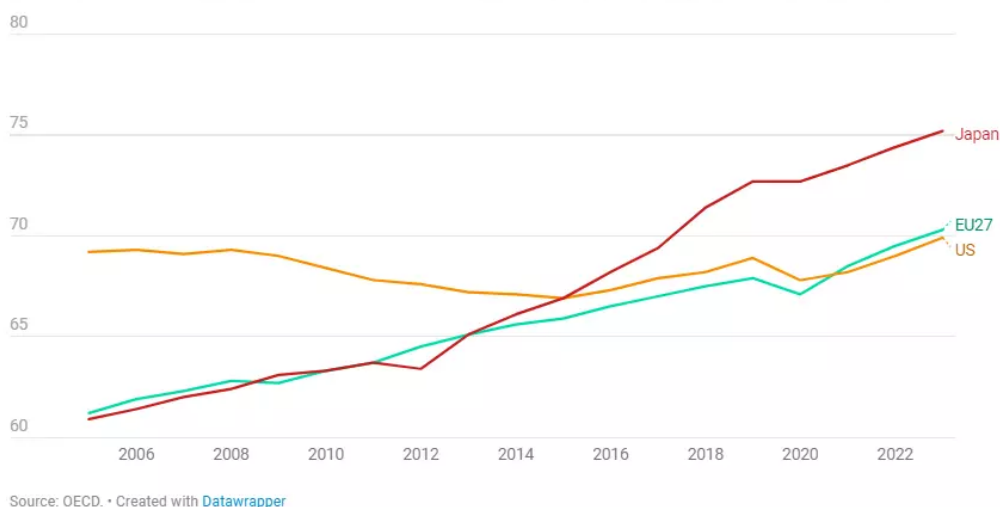
Source: Bruegel, based on Eurostat. Note: Activity limitation is defined using the Global Activity Limitation Indicator (GALI), which observes limitations in activities because of one or more health issues. These limitations should have persisted for at least the past six months. Possible answers: 'severely limited', 'limited but not severely', or 'not limited at all'. Here, we specifically focus on those classified as 'severely limited'.

Currently, a large share of people in need of care rely on informal care and care from relatives – this may represent up to 80 percent of total care time in the EU (European Commission, 2021b). In the future, such extensive reliance on informal care is likely to be unrealistic because of three trends. First, childlessness is becoming more prevalent, along with generally declining fertility rates. This means that there will be

fewer potential informal carers in the future, and more elderly people will not have offspring who can provide care when needed. Second, informal care is predominantly provided by women. More women participate in the labour force than in the past, reducing the scope to provide care. Third, children live further away from their parents than in the past, making it more difficult to provide care. Hence, demand for formal care will likely increase in the future.

Women leaving their jobs to care for elderly relatives is recognised as a significant factor behind the stagnation in female labour-force participation in the United States since the 2000s (US Department of Labor, 2023). But higher demand for long-term care does not necessarily result in less labour-market participation by women. In Japan, for instance, despite a significant proportion of the population being very old already in 2022 (5.4 percent compared to 2.9 percent in the EU), there is a considerably higher female labour supply than in the US or the EU (Figure 5). EU policymakers must plan for higher demand for LTC services in ways that do not disadvantage women.

**Figure 5: Female labour-force participation rate, age 15-64, 2005-2023**



More formal care will require an increase in public spending on age-related policies, notably pensions and long-term care. The Commission's 2024 Ageing Report (European Commission, 2024) shows that age-related expenditures (including pensions, healthcare, long-term care and education expenditures) are a significant part of government spending. Aggregate EU age-related expenditure stood at 24.4 percent of GDP in 2022 and is projected to rise by 1.2 percentage points of GDP in the EU by 2070<sup>4</sup>.

In many European countries, the primary pension system is pay-as-you-go, meaning that the pension contributions of current workers are used to finance the pensions of current retirees. The shifting demographics imply that a relatively smaller workforce will be tasked with supporting a larger population of retirees. The European Commission (2024) forecasts an increase in the EU average public pension spending from 11.4 percent of GDP in 2022 to 12.1 percent by 2045, followed by a decrease to 11.8 percent of GDP in 2070 (weighted by GDP) <sup>5</sup>.

Healthcare and long-term care spending are projected to increase in almost all EU countries. Healthcare expenditure in the EU is set to increase from 6.9 percent of GDP in 2022 to 7.3 percent by 2070. Since 2017, public LTC expenditure has risen and is projected to increase by 0.8 percentage points of GDP, from 1.7 percent in 2022 to 2.6 percent by 2070.

One direct implication of population ageing is that the average age of those in the labour force will increase. However, the labour market situation of older workers is different from younger workers. For instance, older workers are less likely to lose their jobs, but if they do, it takes them longer, on average, to find new employment (Martin, 2018). Additionally, older workers tend to participate less in on-the-job training compared to younger workers, making it less likely they will switch careers or industries (Fritzsche and Marcus, 2013). At the same time, with an ageing workforce, there is a higher risk that skills might become outdated relative to continuing innovations. Therefore, the EU labour market will increasingly rely on the up-skilling and/or re-skilling of the current workforce, rather than on people transitioning from the initial education system (Desjardins and Warnke, 2012). Moreover, recent pension reforms will lead to gradual increases in the statutory retirement age in many countries. But the average effective retirement age persistently remains below the statutory retirement age in most member states (European Commission, 2021c), indicating that raising the legal retirement age will not be enough to keep people in the labour market.

### **Policy recommendations**

In readiness for a situation in which the very old (85+) make up almost 10 percent of the EU population in 2100, policymakers can look at three main areas.

First, policymakers must aim at better health in old age by promoting healthy ageing. This will be the most effective way to limit the demand for LTC. European funds should

support research to cure cognitive diseases causing dementia, which is projected to be a significant driver of future LTC needs.

Second, policymakers must prepare LTC systems for a significant increase in demand. This means investment in care facilities and equipment, and taking measures to increase the number of care workers, for example by raising wages or improving working conditions. Governments should also facilitate training in care occupations, for example by subsidising education and paying out stipends. Training programmes could target individuals in occupations currently at risk of becoming redundant and offer an alternative.

Third, policymakers need to focus on women in the context of pensions and LTC. Care is predominantly provided by women, who are more likely to reduce working hours because they have care responsibilities. This not only results in lower income for women, but also lower social security contributions leading to lower pensions than men, on average. To support informal carers, governments should provide pension contribution credits for time spent away from work to care for others. Several countries have introduced such measures, including France, Belgium, Germany and Italy (European Commission, 2021d). The European Commission can play a role by identifying best-practices and coordinating policies.

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## Endnotes

1 Eurostat data.

2 This is not only true for the EU, but also for a wider set of developed countries (Gruber and McGarry, 2023).

3 LTC is commonly defined as services needed by individuals experiencing diminished physical or cognitive abilities, leading to increased dependency on assistance for day-to-day activities including eating, washing, dressing and household chores such as shopping or laundry (OECD, 2023).

4. In the Commission's Ageing Report (European Commission, 2024), pensions expenditures are projected by member states directly taking into account the characteristics of the country-specific pension system. The projections for long-term care, healthcare and education expenditures are constructed by the Commission using a common projection model, taking country-specific age and cost profiles as a starting point. This risks underestimating some costs, notably for healthcare.

5. After 2045, the Commission projects ageing trends to be counteracted by three factors. First, lower pension spending per pensioner. Second, the number of new pensioners increasing slower than the 65+ year old. Third, labour market trends.

**Bruegel**

Rue de la Charité 33,

B-1210 Brussels

(+32) 2 227 4210

info@bruegel.org

**Bruegel.org**