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The Labor Market Decisions of Older Workers in Ageing Economies:

Evidence from Spain and the UK

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The Labor Market Decisions of Older Workers in Ageing Economies: Evidence from Spain and the UK

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ABSTRACT: Faced with fiscal pressures and labor shortages from ageing populations, Advanced Economies need to ease obstacles to longer working lives. In this paper, we discuss recent developments in employment and activity of workers aged 55 and above in Spain and the UK—two countries that differ widely on historical and recent employment rate patterns as well as institutional settings. We then explore themes related to their labor market decisions, including flows into and out of the labor force, health, working arrangements, and unemployment benefits systems. The differences and commonalities between the two countries highlight the diversity of obstacles to longer working lives and the need for policies to act upon all of them. Policy priorities include addressing worsening health, improving accessibility for older workers with physical limitations, providing incentives to return to employment for the long-term unemployed, and greater flexibility in hours and working arrangments for those who have family caring duties or want to gradually transition out of work.

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I. Introduction

Demographic ageing comes with unprecedented macroeconomic and fiscal challenges. In many countries, the growing old-age population entails burgeoning outlays from pay-as-you-go pension systems and higher expenditure on health and long-term care. At the same time, the falling working-age population constrains the scope to further raise income taxes and social security contributions to finance these spending pressures. Meanwhile, labor shortages may emerge as older cohorts retire but their demand for goods and services persists.

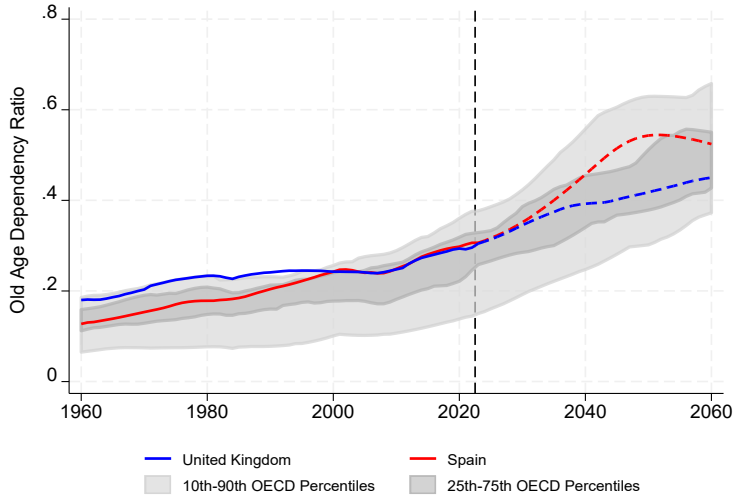
Against this backdrop, encouraging longer working lives is a critical step to preserve fiscal sustainability while maintaining a balanced use of resources across competing spending needs, and to counter any labor shortages. A larger employed labor force means expanded revenues from income taxation and social security contributions as well as higher economic growth. Moreover, delaying retirement implies lower pension expenditures. Over the past decades, governments in most Advanced Economies therefore raised statutory pension ages, closed *de facto* early retirement pathways through other social transfer programs, tightened financial penalties for early retirement under the pension system, and strengthened incentives for delayed retirement.

Extending working lives, however, requires a broader set of interventions, beyond the design of the pensions system, to equip older individuals with the physical ability, skills, and incentives to continue working—either in their current positions or switching to less physically demanding jobs. At older ages, as people's lives become more complex and heterogeneous, labor market decisions are driven by a variety of factors, often intertwined. These include health conditions, the need to care for other family members, the ability to keep up with new technologies, job satisfaction, and households' financial position (Cooke, 2006; Peterson and Murphy, 2010; Scott 2021; Wallenius, 2022). Hence, monetary (dis)incentives embedded in pension systems, while critical, can only partly explain workers' retirement decisions (Boldrin et al., 2004). For this reason, the average effective age of labor market exit often precedes the age of formal retirement by several years. Moreover, while past increases in minimum and standard pension ages succeeded in delaying retirement, it is not necessarily the case that further increases will be equally effective, as additional concerns, such as health and personal wellbeing, become more pressing constraints at older ages (Carrino et al., 2020; Pilipiec et al., 2021).

This paper explores several of these issues through a panoramic view of the labor market for older workers in two European economies, Spain and the UK. Like most Advanced Economies, these countries face strong demographic pressures. Both experienced a rising old-age

dependency ratio over the past 30 years (Figure 1), underpinned by falling fertility rates and longer lives, and only partially countered by net inflows of (generally younger) immigrants.[1] Over the next four decades, their dependency ratios are projected to continue growing to unprecedented levels, with a steeper rise in Spain. Moreover, in both countries, the average effective age of labor market exit is more than two years below the statutory pension age, suggesting scope to increase participation of older workers via channels that go beyond retirement rules.[2]

Figure 1. Spain and UK: Old-age Dependency Ratio



Sources: OECD and authors' calculations.
Note: The old age dependency ratio is defined as the ratio of the population aged 65 and above over the population aged 15 to 64. The series starting in 2023 (dashed lines) represent projections by the OECD.

The two countries, however, differ markedly in other respects, which makes them useful points of comparison for a discussion generalizable to other Advanced Economies. In the UK, the labor market participation rate of older workers—conventionally defined as those aged 55 and above—was comparatively high at the turn of the century and continued to rise until the COVID-19 pandemic, when it contracted and partially stalled. Meanwhile, in Spain the participation rate of older workers started growing later, as increases in the statutory pension age are more recent (García-Gómez et al., 2018) but the positive trend continued until 2024, almost unaffected by the COVID-19 recession.

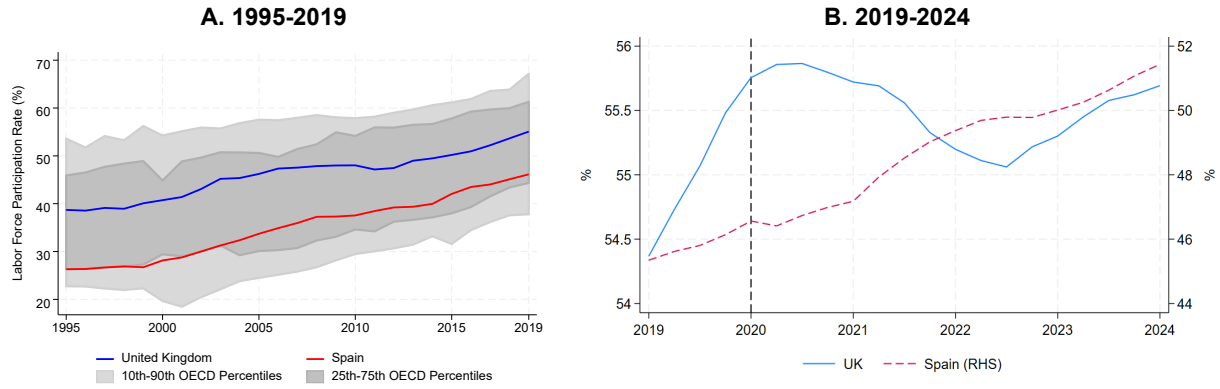
The substantial differences in the countries' pension systems and social safety nets, key factors in older workers' labor market decisions, offer further ground for a comparison between the two. Despite undergoing several reforms throughout the years, which progressively increased the retirement age and adjusted the computation of benefits, Spain's public pension system remains built on a defined-benefit principle. Compared to peer countries, Spain's system also currently delivers relatively high average replacement rates while committing a large share of fiscal resources (OECD, 2023). Meanwhile, in the 1990s the UK began transitioning towards defined-

[1] The old-age dependency ratio is defined as the population aged 65 and above divided by the population of working age (15 to 64 years of age).

[2] Using the methodology of OECD (2023), the average effective age of exit from the labor market is 62.4 in Spain and 63.6 in the UK, against statutory pensionable ages of 65-66 (depending on contribution history).

contribution schemes, broadly separated by professional classes, and with increased flexibility to combine pension and work earnings. By shifting the responsibility of retirement saving to individuals, this reform has lowered the risks for public finances but has reduced the overall generosity and possibly widened inequalities in retirement earnings. The main unemployment support programs in the countries also differ, as discussed in greater detail below, in ways that may provide different levels of incentives for older workers' return to employment after losing their jobs. Other institutional features, such as the grater stringency of employment protection legislation in Spain, are also likely to create differences in overall labor turnover and, as such, in the likelihood that the older unemployed find a job.

Figure 2. Spain and the UK: Labor Force Participation of Workers aged 55-69



Sources: OECD, EPA, LFS, and authors' calculations.

In this paper, we first describe the evolution of labor force participation for workers aged 55 and above since the onset of COVID-19, dissecting it into the contributions of inflows and outflows across employment, unemployment, and inactivity. In turn, using survey questions on the reasons why older workers choose not to look for jobs, we examine the drivers of inactivity and how they may have changed since the pandemic. We subsequently discuss three policy-related topics relevant to older workers' labor market decisions: unemployment support programs, health, and job characteristics and working arrangements. While these themes are presented separately, their discussion conveys how they are inevitably connected, and collectively highlight how labor market decisions fit into older workers' complex lives and choices.

Our main findings for Spain are as follows. The long-term positive trend in participation of older workers has been driven primarily by falling retirement rates prior to age 65. Moreover, since the pandemic, flows from inactivity to activity have increased, underpinned by a fall in discouraged workers. However, a counteracting force has been the increase in those inactive due to "care duties." While inactivity due to sickness and disability has not increased, other indicators of bad health—such as the fraction of workers with physical limitations and health-related work absences—have deteriorated since 2016, and more markedly so than they did among the

prime-age population. While jobless older workers have a higher coverage of unemployment benefits than the prime-aged, across the spectrum of the unemployment spell there are only small differences in re-employment probabilities between those older unemployed who receive benefits and those who do not. Finally, several job characteristics aligned with older workers' preferences, such as hours flexibility and low stress, are associated with higher average retirement ages.

Results for the UK present some similarities but also notable differences. The post-COVID decrease in older workers' participation rate was underpinned by both higher inflows into inactivity and lower flows from inactivity back to activity. While this dynamic is linked to a general (possibly cyclical) slow-down in participation, the contraction has been more pronounced for those aged 55-64 than for prime-age workers. Among stated reasons for inactivity, retirement has been falling steadily but sickness and disabilities, particularly related to mental health, have grown significantly since the pandemic. This development is reflected in the rise of other indicators of poor health, such as the share of people with long-term physical and mental conditions or limitations, and health-related work absences. Nevertheless, this worsening in health conditions is not specific to older workers and has in fact been more pronounced among prime-age workers. Unemployment benefits provided under the Universal Credit program do not have higher coverage among older workers compared to the rest of the population, but for the former they are associated with improved probabilities of finding a new job. Finally, unlike in Spain, jobs with features such as flexibility and autonomy, which are known to align with older workers' preferences, do not exhibit strong associations with retirement ages. One possible explanation is the more prominent weight of financial factors in retirement timing decisions in the UK due to the high and increasing incidence of defined-contribution pension schemes.

This paper is connected to streams of literature addressing the implications and challenges of ageing along multiple dimensions. Several works find that ageing populations have historically been associated with lower GDP growth (Aksoy et al., 2019, Bloom et al., 2015), while the role of ageing as driver of fiscal pressures, in particular for pension systems, is a long-standing subject of study (e.g., Amaglobeli et al., 2019). An extensive literature on the labor markets of older workers also exists on each topic discussed in this paper (see Coile, 2016 for a review), including for the two countries. We refer to these studies throughout the rest of the paper when relevant. Several other works undertake a panoramic approach in discussing the range of confounding factors affecting the decisions of older workers and the related policy challenges in each country—for example, Lain and Vickerstaff (2015), Phillipson et al. (2015), Flynn and Yi (2016) for the UK, and Flores Mallo (2008) for Spain. Moreover, as ageing is a phenomenon common to many Advanced Economies, it has often been studied through a cross-country lens (Blöndal and Scarpetta, 1999; Duval, 2003, 2004; Funk, 2004; Coile et al., 2016, 2022; Cooke, 2006; Martin, 2018; Geppert et al., 2019; Rogerson and Wallenius, 2022), which has highlighted

the role of old-age pension and *de facto* early retirement schemes—in particular, social transfer programs. This paper contributes to the literature through a comparison of two Advanced Economies and a joint analysis of several different drivers of older workers' labor market participation. Additionally, we focus on the years just before and after COVID-19, identifying both salient developments since the pandemic and pre-pandemic trends that still persist.

This paper's findings are in line with several long-standing policy takeaways from the literature:

- Raising effective retirement ages requires not only increasing the pensionable age—both the early and standard ones—but also acting on all other sources of inactivity, such as health and disability, family care duties, and discouragement from job search.

- To this end, it is important to tackle both directions of old workers' transitions between activity and inactivity. Compared to prime-age workers, transitions out of activity are more frequent for older workers, as they move on to a stage in their life where, even if official retirement and pension income is not yet in sight, work is not necessarily a priority or is prevented by personal health and family circumstances. However, returns to the active labor force are not infrequent, especially for workers who do not yet consider themselves permanently retired. Therefore, providing support to older workers who wish to re-enter the labor market, such as through active labor market policies, is as important as reducing disincentives to early exit.

- The design of unemployment benefits and social assistance systems could be adjusted to foster greater job search among the long-term jobless. Options include benefits tapering off through the unemployment spell, strengthening activation requirements and/or expanding the scope for combining work with benefits receipt. These should come hand-in-hand with addressing more structural issues behind the fast decline in the re-employment prospects of jobless older workers, including skill depreciation.

- Health, another prominent concern for older workers' ability to participate in the labor market, has several different dimensions that call for a multifaceted approach. Bad health is a driver of both inactivity and lower hours worked. Physical limitations related to long-term conditions can also pose a significant impediment to employment. Policies should therefore not only aim to lower the incidence of acute diseases and disability but also increase workplace accessibility and promote the transitions of older workers to jobs that can better accommodate health-related limitations.

- Adapting work arrangements to older people's preferences, including reduced or flexible hours, lower physical strain or stress, and accommodating for physical limitations, while

still leveraging their experience, can prolong working lives and delay retirement. Progress can be achieved not just through legislative measures but also via collective bargaining, particularly in Spain where it remains extensive.

The rest of this paper is structured as follows. Section II describes the data used for the two countries and sets out our definition of older workers. Section III examines recent developments in the labor force participation rate of older workers since the pandemic, appraising the contribution of different flows across labor market states. Section IV looks into older workers' reasons for inactivity. Section V discusses the design of unemployment benefits programs and their embedded job search incentives for older workers. Section VI delves into health-related issues. Section VII examines whether job characteristics and working arrangements are related to the effective age of retirement. Finally, Section VIII concludes by discussing the main take-aways and policy implications of the analysis.

II. Data and definition of older workers

II.A Data Sources

We rely on microdata sources collected by the national statistical offices: the Instituto Nacional de Estadísticas (INE) for Spain and the Office of National Statistics (ONS) for the UK. These nationally representative surveys contain information on individuals' labor market state, income, self-assessed health condition, and other socio-economic indicators. Furthermore, they allow observing workers' transitions across labor market states through their panel dimension. The analysis considers the period from 2016Q1 until the latest available quarter from each source. While we strive to harmonize the analysis to the extent possible, differences in the phrasing of questions or the categorical options of the answers remain an important caveat for the comparison of the two countries. Two examples are questions on reasons for inactivity and the definition of health conditions, which in the UK explicitly mentions mental health.

For Spainwe use two surveys: the *Encuesta Nacional de Población Activa* (EPA) and the *Encuesta de Condiciones de Vida* (ECV). The EPA, a quarterly survey, serves as the country's primary source of labor market statistics. Thanks to its rotating panel structure, its longitudinal version allows following workers for up to six quarters. The latest available quarter from the EPA is 2024Q2, with a sample of 122,255 observations. The ECV is an annual household survey covering a broader range of topics, including health, income sources, housing, and wellbeing. It also has a panel dimension, although it is not used in this analysis. The latest available year is 2023, with a sample of 56,532 observations.

For the UK we use the *Labour Force Survey* (LFS), which is nationally representative and available at quarterly frequency. Its rotating panel structure allows tracking the same individuals

for up to five quarters. While its focus is the labor market, it contains several questions on other topics which allow us to explore the other themes in the paper. The latest available wave for the cross-sectional version of the data is 2024Q1, with a sample of 41,875 observations. However, the panel version of the LFS was temporarily interrupted after 2023Q2 due to data collection and representativeness issues. Therefore, 2023Q2 is the final period for the parts of the analysis related to workers' flows in Section III.

II.B Definition of Older Workers

To the extent possible, the analysis consistently applies the same sample selection to define "older workers": those aged 55 to 69. In many cases, this group is further disaggregated into subgroups: 55-59, 60-64, and 65-69. This is because, while workers older than 55 are very different from prime-age workers (25-54), they also differ among themselves in many respects. For instance, the 55-59 group—sometimes referred to as the "young old"—are closest to prime age, and by 2023 they may still be more than 10 years away from retirement. The 60-64 range used to be the most likely age span for retirement, but by 2023, in both countries, it lies below the standard retirement age for public pension programs. Hence, pensioners in this age group would now count as early retirees. Labor force participation in the range 65-69, which used to be negligible, is becoming common, as the regular retirement ages in Spain and the UK are now 65 and 66, respectively.[3] Finally, while labor force participation after age 70 is increasingly becoming a reality, the analysis will not focus on this group as it remains smaller in absolute terms relative to the others and in many cases the results are less nuanced (e.g., a very high share of the inactive past age 70 are fully retired and very unlikely to return to the labor force). However, in the case of the flows analysis using the EPA, this group is included in the analysis because the panel version of the survey only contains a categorical age variable with a "65 and older" group.

II.C Scope of the Analysis

Given the already wide scope of the paper, for ease of presentation, the analysis will in most cases only separate workers by their ages, without distinction of education level and gender. However, these two demographic dimensions are extremely important for the study of labor markets and deserving of their own detailed discussion, as their interaction with ageing can be very complex. For instance, workers with lower levels of education would have started their careers earlier in their lives and may be eligible for full-pension retirement at younger ages, or they may be more vulnerable to health shocks as they work in manual-intensive occupations. Women may also be leaving the labor force at earlier ages, since they have traditionally been more likely to tend to other family responsibilities and generally have lower attachment to the

[3] In Spain, it is scheduled to reach 67 by 2028 for both men and women, or 65 for those with more than 38.5 years of contribution years. In the UK, it is programmed to rise from 66 to 67 for both men and women by 2028 and subsequently to 68 by 2046.

labor market. The discussion will comment on these issues when needed and, if distinctions across gender and education are salient, it will provide a disaggregated analysis.

III. General Developments in Employment and Labor Force Participation

This section provides an overview of recent developments in older workers' labor force participation, also referred to as "activity", conventionally defined as the sum of employed workers and the unemployed (i.e., those without a job but actively seeking work). Because of the large, though possibly short-lived, disruptions caused by COVID-19, the pandemic is taken as a reference point for a pre-/post- assessment. In both Spain and the UK, in 2019 the employment rate was at historical highs, with low unemployment rates for each country's standards. But while in Spain the participation rate of older workers has steadily increased over recent years, particularly for the 55-59 and 60-64 age brackets and amongst females, the UK has witnessed a halt in the long-run upward trend in labor force participation for all age groups in the wake of COVID-19, although still comparing favorably in level terms. Below, the roles of the underlying worker flows across three labor market states (employment, unemployment, and inactivity) are examined to shed further light on these dynamics.

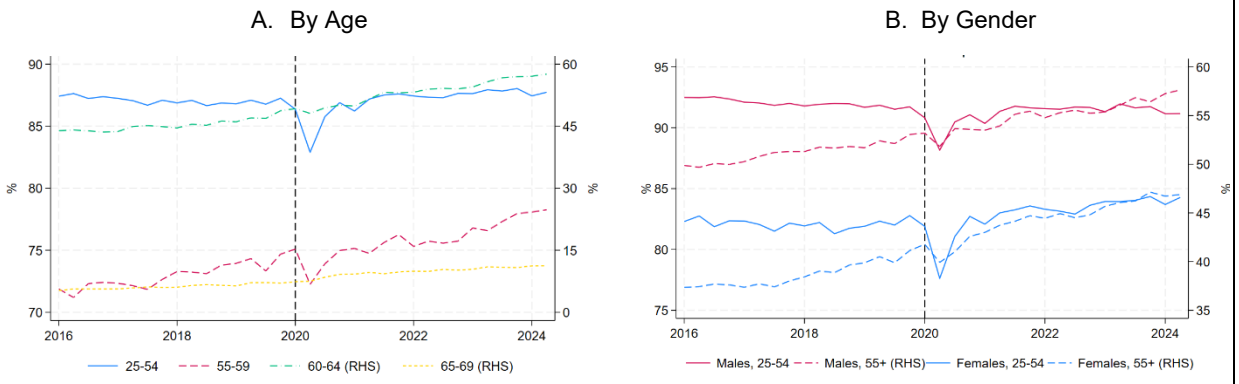
III.A Spain

In Spain, the participation rate of older workers has steadily increased over recent years, with post-COVID growth in line with pre-pandemic trends (Figure 3, left panel). Breaking down by ages, the strongest increases are seen in workers aged 55-59 and 60-64, with participation rates rising 6.4 and 13.7 percentage points, respectively, from 2016Q1 until the second quarter of 2024, to reach approximately 78 percent and 58 percent. This stands in contrast with prime-age workers, who saw a large drop in participation in 2020 followed by a recovery that brought them only marginally above pre-pandemic levels. These trends hold for both older male and female workers (Figure 3, right panel), whose participation rates rose substantially over the past 8 years, in contrast with the stagnation among the prime-age group, especially males.[4]

What are the proximate drivers of these trends? First, there can be fewer workers exiting employment as they delay their retirement decision. Second, those without a job may be less discouraged from searching for work, remaining unemployed—and therefore active—for longer. Lastly, movements out of inactivity could be rising if more older workers turn out to re-enter the labor force, whether due to "unretirement", age-friendly job opportunities, or better health. We investigate these proximate drivers in turn.

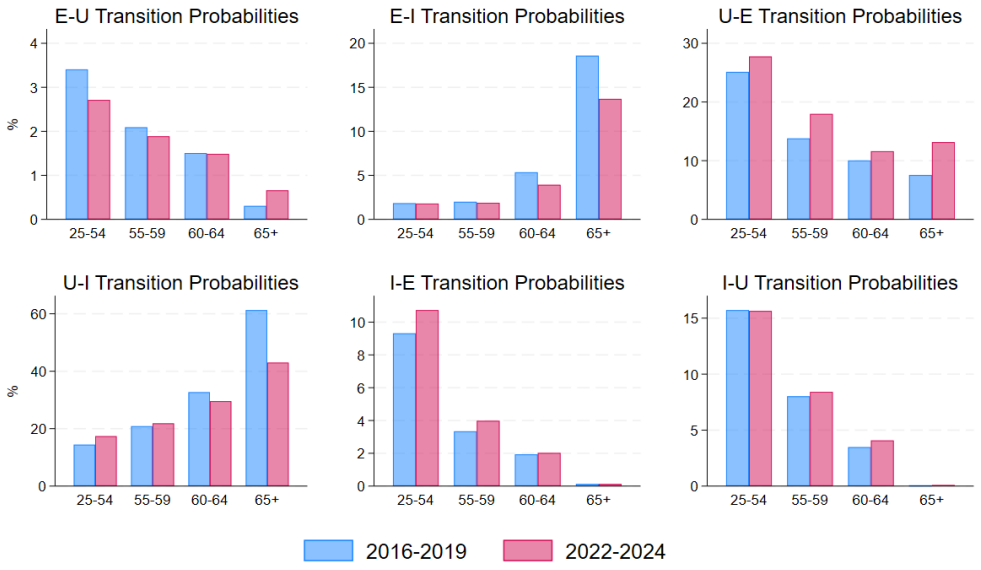
[4] Annex Figure A1 reports the labor force participation rate by age and education level.

Figure 3. Spain: Labor Force Participation Rate by Age and Gender



Sources: Encuesta de Población Activa and authors' calculations.

Figure 4. Spain: Probabilities of Transition Across Labor Market States



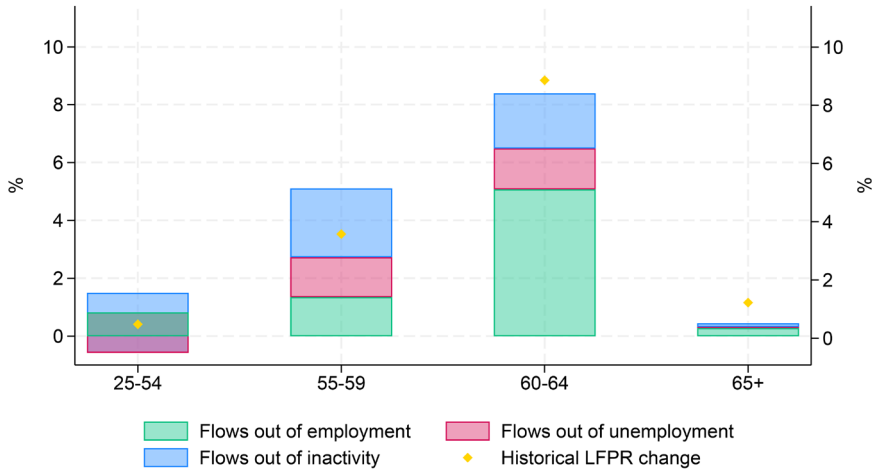
Sources: Encuesta de Población Activa and authors' calculations.
Note: Transition probabilities computed as the number of people moving between states between consecutive quarters over the total stock of people in the outgoing state in the previous quarter. "E" represents employment, "U" represents unemployment and "I" inactivity.

Figure 4 plots average quarterly probabilities of transitioning across labor market states–employment (E), unemployment (U) and inactivity (I)—before and after the pandemic, by age group. Transitions out of employment are lower in the post-pandemic period across all age groups. In particular, flows from E to U are lower for the prime-age and 55-59 groups, while E to I flows show a sharper fall among older people, in line with the observed rise in the effective retirement age in Spain. Furthermore, the two youngest older-worker age brackets saw a modest increase in transitions from I to E. These flows are especially relevant for understanding

participation trends of the 55-59 group, which we will explore below. [5] Lastly, U to E transitions are higher in the post-pandemic years for all age groups, which indirectly also matters for inactivity since the unemployed in turn have a higher inflow rate into inactivity.[6]

To better quantify the impact of labor market flows on participation, we perform an illustrative steady-state decomposition exercise, where the difference in the "steady-state" participation rates between the pre- and post-COVID periods are decomposed into the contribution from flows out of employment (E-U and E-I), out of unemployment (U-E and U-I) and out of inactivity (I-E and I-U). The technical details of this derivation are left to Annex C.[7]

Figure 5. Spain: Decomposition of Change in Participation Rates



Sources: Encuesta de Población Activa and authors' calculations.
Note: The height of the bars represents the change in steady-state labor force participation rates between the post and pre-covid periods. The colored ranges show the contribution of changes in the flows to this steady-state difference. For instance, flows out of employment capture the contribution to the change in the participations rate from the change in flows from employment to inactivity and unemployment. The diamonds correspond to the observed change in LFPR between the last available post-covid quarter and 2019Q4.

Figure 5 shows that changes in flow rates between pre- and post-COVID periods are quantitatively most relevant for workers aged 60-64, followed by those in the 55-59 range. For the latter, as previously mentioned, the higher rates of transition out of inactivity contribute predominantly to the increase in participation. For the 60-64 and, to a smaller degree, the 65+ age groups, outflows from inactivity also have a sizeable impact, although it is the reduction in transitions from employment to inactivity that accounts for most of the rise in participation. In

[5] While I-E transitions at older ages are relatively infrequent, their progressive rise has spurred a deeper study and the use of the term "unretirement" (e.g., Maestas, 2010; and for the UK specifically Kanabar, 2015, and Platts et al., 2017). However, not all I-E transitions for older workers fall under the definition of unretirement, since there are reasons other than retirement for inactivity.

[6] Intuitively, if more unemployed workers transition to employment, which has a lower EI flow rate than the UI rate, fewer workers overall transition into inactivity from the aggregate group of E and U.

[7] In simple terms, hypothetical steady states of employment, unemployment, and inactivity based on the values of these flow rates prior to COVID-19 and after COVID-19 are computed. Then, counterfactual steady states are computed in which only one set of flows at a time is changed from its pre-COVID to post-COVID value to appraise its quantitative relevance for the overall participation rate.

sum, the positive trend in older workers' participation rates can be attributed to both stronger attachment to employment and more frequent return to the labor market after inactivity.

III.B UK

The UK witnessed a halt in the long-run upward trend in labor force participation for all age groups in the wake of COVID-19 (Figure 6, left panel), though in terms of levels, the participation rate of 55-59 and 60-64 year-olds in 2024 is similar to that of Spain and higher among those aged 65-69. For prime-age workers, participation stagnated between 2020 and 2024, and declined for men (Figure 6, right panel). The 55-59 and 60-64 age ranges, however, experienced a pronounced contraction followed by a slow recovery after the pandemic. Workers aged between 55 and 59 still have lower activity rates than pre-2020, with a participation rate of 75.4 percent in the first quarter of 2024 compared with 77.8 percent in the last quarter of 2019. Only those aged 65-69 saw mild growth since 2020. These trends are also visible in the gender breakdown (Figure 6, right panel).[8] [9]

Figure 6. UK: Labor Force Participation Rate by Age and Gender

Sources: UK Labour Force Survey and authors' calculations.

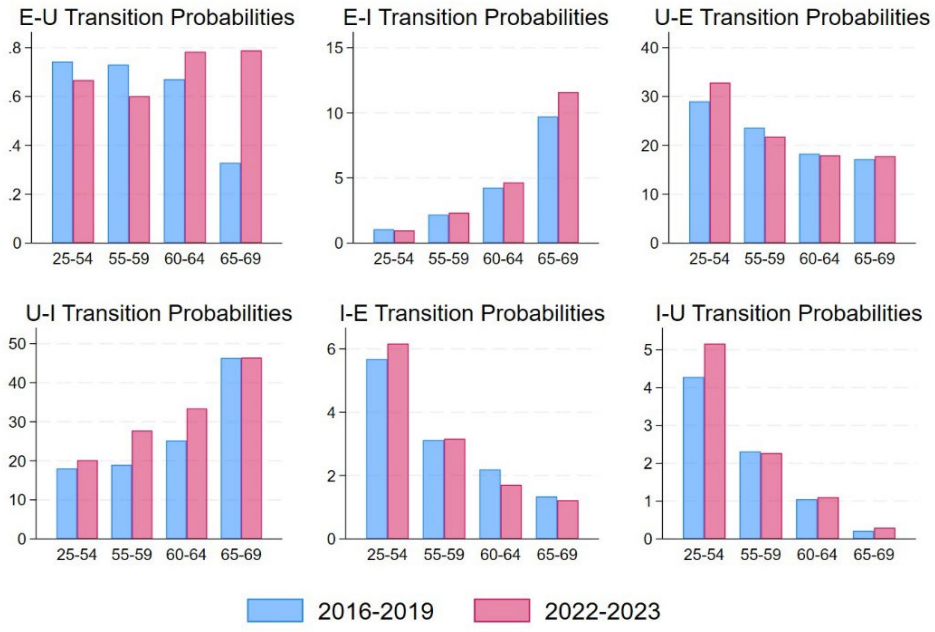
In terms of the flows underlying these changes in participation, transitions to inactivity (I) from employment (E) and unemployment (U) have increased across the board since the pandemic (Figure 7). These increases have a particularly large effect on the participation rate of older groups, as inactivity tends to be a very persistent state for people at the end of their working life. For the 60-64 group, I-E flows have also fallen, implying that these workers, on top of becoming more likely to fall into inactivity, are also more likely to remain inactive. Indirectly, the rise in

[8] Annex Figure B1 reports the labor force participation rate by age and education level.

[9] It should be noted, however, that several sources have raised concerns about the reliability of LFS data in recent years given falling response rates. Alternative sources such as HMRCs payroll administrative data or ONS' workforce jobs estimates (based on business surveys) suggest a higher growth rate of employment than the LFS, which in turn may lead to overstating the degree of inactivity in the UK. Analysis by the Resolution Foundation (Corlett, 2024) shows that the higher growth in employment has primarily resulted in an overestimate of inactivity in the LFS statistics, and the actual increase since the pandemic has been much more limited. However, it remains unclear whether this issue homogenously affects the estimates across the age distribution. The report, for instance, notes that external sources show a rise in the number of ill-health inactive (predominantly older workers) and students (mostly young), but a decline in those "looking after family/home" (predominantly in their prime age).

transitions from employment to unemployment may also have contributed to decreasing activity, given that the older unemployed are more likely to transition to inactivity rather than back to employment.[10]

Figure 7. UK: Probabilities of Transition Across Labor Market States



Sources: UK Labour Force Survey and authors' calculations.
Note: Transition probabilities computed as the number of people moving between states between consecutive quarters over the total stock of people in the outgoing state in the previous quarter. "E" represents employment, "U" represents unemployment and "I" inactivity.

IV. Zooming into Inactivity

Understanding why older people are not actively searching for a job and may not even be interested in one is crucial to inform policies aimed at retaining workers in employment and encouraging return to the labor force when inactive. In this section, we discuss the stated reasons why older inactive workers report not participating in the labor market, examining changes in their incidence since the pandemic. This descriptive analysis sheds some light on the most likely underlying drivers of post-COVID changes in participation rates among older

[10] For the UK we do not compute the decomposition of the change in participation based on the steady-state approximation because the panel version of the LFS was interrupted in 2023Q2 due to data quality issues. This shorter time period over which the values in Figure 6 are computed thus do not provide a good approximation of the labor force participation rate at the end of the period of interest (early 2024).

workers in Spain and the UK. It also helps in identifying other developments that may be masked by the headline figures.

To interpret the analysis below, two methodological caveats are in order. First, inactivity could be the result of a confluence of factors (in fact, surveys often allow selecting multiple reasons), and sometimes answers do not easily fit into a single category. For instance, a worker who reports being retired may have done so voluntarily, involuntarily after a period of deteriorating health, or right after a layoff. For ease of presentation, we use the first reason for inactivity reported by the respondents, as this arguably reflects the most relevant one. Second, the breakdown of the *stock* of inactive workers is indicative of the reasons *currently* keeping them out of the labor force, but not necessarily of the reasons why they originally left it. Studying the latter would require examining the *flows* from activity to inactivity broken down by reason. As some of the flows are small, analyzing developments of flows over time remains more challenging than for the stocks.

In Spain, three key forces behind declining inactivity among older workers have been the postponement of retirement due to rising old-age pension eligibility ages, the reduction in discouragement among the older jobless due to the improved labor market situation, and reduced prevalence of care due to family reasons. In contrast, the inactivity among older workers has been dragged down by rising health issues, which is also evident among the prime-age workers. This is especially prevalent in the UK, suggesting a general deterioration of health in the country.

IV.A Spain

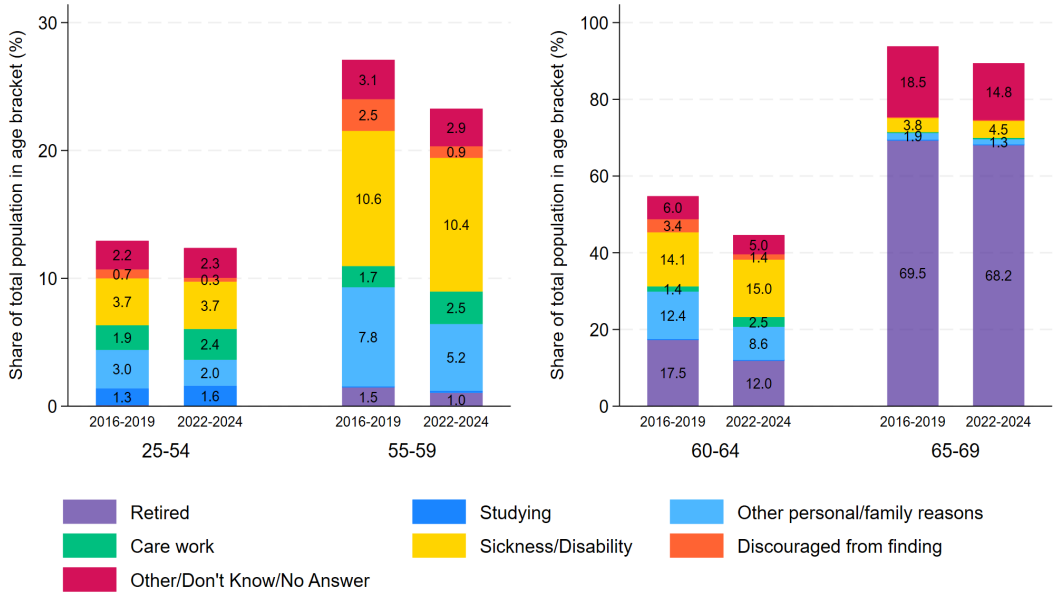
To explore the factors behind the decline in inactivity rates documented in the previous section, Figure 8 plots the inactive as a share of the total population in each age bracket, broken down by reason. The height of each bar represents the inactivity rate for each group in the period considered, with each colored segment representing the contribution of the corresponding reason to overall inactivity.

The postponement of retirement has been an important driver of rising activity among older workers since COVID-19. The share of retired workers in all three older-age brackets was lower over 2022-2024 compared to 2016-2019, with the largest drop being observed among those aged 60-64.[11] This decline is in line with the rise in the average retirement age from 63.9 pre-pandemic to 64.5 in its aftermath (Annex Figure A2) which, in turn, reflects the progressive rise in the standard pensionable age together with greater (dis-)incentives for (early) delayed

[11] Several forms of early retirement are available in Spain. For those with enough years of contributions, retirement is possible before the statutory pensionable age while receiving full benefits. However, early retirement is also possible with decreases in benefits. According to public statistics from Statistics from the Ministry of Social Security, Migration, and Inclusion the share of early retirees with reduced benefits among all new retirees has been decreasing steadily from 28 percent in 2020 to 23 percent in 2023 and 19 percent for 2024 (partial data covering January-November 2024).

retirement.[12] By contrast, unlike in the UK (see below), inactivity due to sickness or disability has remained roughly unchanged across all age groups, suggesting that the potential medium-term effects of the pandemic on health have been limited in Spain.

Figure 8. Spain: Reasons for Inactivity



Sources: Encuesta de Población Activa and authors' calculations.
Note: The height of the bar corresponds to the share of inactive in the population of each age bracket, averaged across the years considered. The colored ranges represent the share of workers inactive due to each respective reason for inactivity.

Falling discouragement among the older jobless also helped reduce inactivity. In the 2022-2024 period, discouraged workers represented just 0.9 percent of the 55-59 population, three times less than in the pre-pandemic period. A similar decrease is also seen in the 60-64 group, among whom the share of discouraged inactive dropped from 3.4 percent to 1.4 percent. Overall labor market developments after the pandemic, such as the increase in job vacancies and labor market tightness (Duval et al., 2022), likely supported this trend.[13] To the extent that discouragement is tied to aggregate labor market conditions and job prospects, however, it is too early to know whether the lower share of discouraged workers is a structural or cyclical (and thus temporary) development.

[12] Through the EPA we measure workers' self-reported state of retirement, which does not necessarily coincide with receiving a state pension. However, public statistics from the Ministry of Social Security, Migration, and Inclusion on the average of new pension recipients corroborates the result from the EPA data that the average age of retirement has been increasing.

[13] The average job vacancy rate for Spain was 0.9 percent in 2022-2024, 0.3 p.p higher than in 2016-2019. Based on Eurostat data, as of 2024Q2, Spain had the third largest unemployment rate decrease vis-à-vis 2019Q4 among all EU countries, although its level remains high.

Another category that has seen a significant reduction is inactivity due to "other personal/family reasons". This is a miscellaneous category that is separate from care work and sickness or disability, which makes it harder to interpret. However, this reason likely covers people whose main task is to take care of household and family matters, as suggested by its low share among inactive male workers (Annex Figure A3). Hence, the fall in this stated reason for inactivity is probably linked to the general trend of increasing female labor force participation.

Lastly, a counteracting force to the decrease in inactivity is the higher share of workers claiming to be inactive due to caring for children, elderly, or disabled family members. This is especially visible in the 55-59 group, but also among the 60-64 year-olds. Whether this is a short-lived occurrence stemming from the post-COVID rise in sickness among the elderly population and disruptions to normal childcare arrangements during lockdowns remains to be investigated with further data releases.

IV.B UK

In the UK, inactivity among older workers has been dragged down by rising health issues. Figure 9 plots the share of inactive people broken down by reason.[14] The most significant development between the pre- and post-pandemic periods is the increase in the share of people inactive due to sickness or disability, including due to mental illness.[15] The share of workers claiming to be out of the labor force due to health increased by 1.9, 1.6 and 2.3 percentage points for workers in the age brackets 55-59, 60-64, and 65-69, respectively. However, the rising share of health-related inactivity since the pandemic is also present among the prime-aged, which could reflect a general deterioration of health in the UK population.[16] This stands in contrast with the Spanish case, where health-related inactivity rose only mildly among some older age groups and did not affect prime-age workers.

The rise in inactivity due to sickness and disability was partly offset by a lower share of retirement for all older age groups, particularly for those aged above 60. As in Spain, this is consistent with a secular trend of increasing pension ages.

A category of inactive workers that historically has been the subject of study in the UK, are the "marginally attached" (e.g., Pizzinelli and Shibata, 2023). This group of workers is comprised of

[14] Despite some differences in possible answers between the Spain and UK surveys, the categories presented in the figures are harmonized to the extent possible for comparability. The only missing category that is not possible to extract from the UK survey is "Other Personal/Family Reasons", which is likely captured by "Other Reasons" and "Family/household Reasons".

[15] This corroborates the discussion in the news and other sources, including an increase in the NHS wait list. See Warner and Zaranko (2024) and coverage in the press, such as "NHS waiting lists in England rise to 7.57mn" (Financial Times, 13 June 2024).

[16] In addition, working-age people getting health-related benefits in England and Wales has increased almost 38 percent in the last 4 years – from 7.5 percent of the working-age population in FY2019–20 to 10 percent in FY2023–24 (see "Health-related benefit claims have risen substantially across every part of England and Wales – but there is little evidence of similar trends in other countries," Institute of Fiscal Studies Press Release, 19 September 2024). See Section VI.B for further discussion.

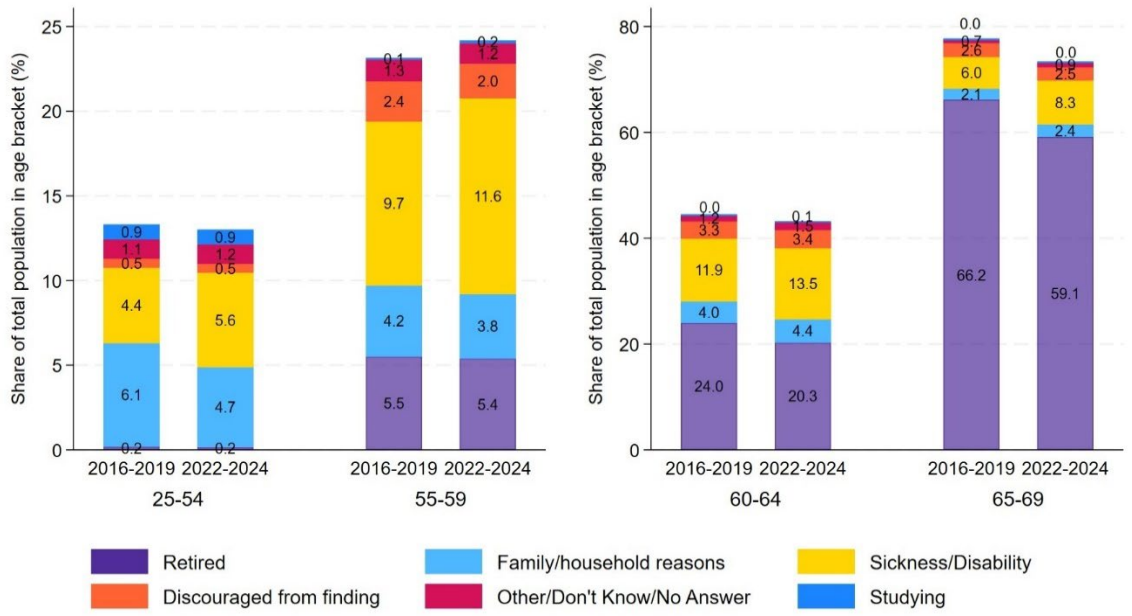
those who are not actively looking for work but would be interested and available to begin a new job soon. Annex Figure B3 reproposes Figure 9 for marginally attached workers only. By construction, this group only represents a fraction of the total inactive population, a particularly small one among the elderly. The share of marginally attached workers is very similar across age groups and has decreased in the wake of the pandemic. Interestingly, in all age groups the inactive due to health reasons or disability comprise the largest category among them. This suggests that adverse health may not be a complete deterrent to labor market participation. Hence, many workers in this condition may potentially return to employment if they could more easily engage in job search.

V. Unemployment support schemes

In this section we discuss the role of unemployment support programs in incentivizing the re-employment of jobless older workers. Given the existence of large literatures on the role of unemployment benefits programs in both countries, to which we refer below, the analysis in this section is largely descriptive in nature. Its main objective is to appraise qualitatively the relative importance of unemployment support design compared to other forces discussed in the paper, such as health or working arrangement flexibility for older workers' (in)activity.

Unemployment benefits, combined with other welfare programs, aim to strike a balance between providing insurance against the negative income shock of job loss and incentivizing a timely return to working. As a result, social safety nets for joblessness generally combine a time-limited earnings-based contributory component with a less substantial non-contributory benefit of more extended duration. In many Advanced Economies, the generosity of the latter is further increased for older workers, sometimes including social security contribution bonuses to mitigate the repercussions of job loss on future pension entitlements. Many studies, however, have found that these programs can also function as a gateway into *de facto* or "shadow" early retirement for older workers (Baguelin and Remillon, 2014; Duval, 2004; Kyyrä and Pesola, 2020; Rogerson and Wallenius, 2022; Yashiro et al., 2023). This underscores the need for such schemes to be designed in ways that preserve the older non-employed's job search incentives.

Figure 9. UK: Reasons for Inactivity



Sources: UK Labour Force Survey and authors' calculations.
Note: The height of the bar corresponds to the share of inactive in the population of each age bracket, averaged across the years considered. The colored ranges represent the share of workers inactive due to each respective reason for inactivity.

As discussed in general terms below, the features of the key unemployment support programs in Spain and the UK differ markedly in ways that are particularly relevant for older job seekers. The UK has almost fully phased in a comprehensive and multi-dimensional Universal Credit (UC) program under which unemployment benefits are means-tested against all other resources and transfers received by the household. Meanwhile, unemployment support in Spain remains mostly based on a traditional system formed by an earnings-based contributory (unemployment insurance) system and a non-contributory (social assistance) component.

This difference is reflected in differences in job finding probabilities by age and duration of unemployment amongst workers with and without benefits. While in Spain unemployment benefits are associated with lower job finding probabilities, in the UK those receiving benefits have a higher chance of re-employment, likely a result of strict job searching conditionality built into the UC system. And while in both countries the probability of older workers transitioning from unemployment to employment is less than half that of prime-age workers, in the UK this gap is wider at short durations and narrower for longer spells. This suggests that older workers in the UK either encounter more challenges in finding a new job or have lower preferences for re-employment early in their unemployment spell.

V.A Spain

Workers who contribute to social security for at least one year are entitled to Unemployment Insurance (UI, *prestación por desempleo*) up to a maximum of 24 months, depending on years of contribution prior to layoffs. Reception of UI is conditional on being registered as a job seeker with the public employment system, and its benefits decrease from 70 percent of the worker's average contribution base during the first 6 months to 60 percent afterwards.[17] Moreover, UI recipients who find a job may continue to combine work income with benefits for 6 months.[18]

Non-contributory Unemployment Assistance (UA, *subsidio por desempleo*), means-tested at the household level, is accessible once the earnings-linked UI benefits expire.[19] This scheme, however, has varying features based on workers' age. For those aged 52 and above, the UA has unlimited duration and includes social security contributions of 125 percent of the minimum contribution base, while for younger workers the program has limited duration (from 4 to 24 months, depending on eligibility) and does not include contributions. Furthermore, this age threshold has changed over the years: it was raised from 52 to 55 years in 2012 and subsequently lowered back to 52 in 2019. As long inactivity periods are associated with lower re-employment chances and lower income prospects, UA functions as a crucial safety net against poverty and a source of support to the workers' job search activity. The inclusion of social security contributions also cushions the effect that job loss late in the career may have could have on pension income. On the other hand, the unlimited nature of the UA program and the relatively higher generosity via including social security payments may reduce the incentives to search for employment for older workers, especially among those with low potential earnings.[20]

Several studies find that unemployment benefits in Spain are associated with lower job finding probabilities (Alba-Ramirez, 1999; Bover et al., 2002; Rebollo-Sanz, 2012). Some works focus specifically on the particular design of UA for older workers. García-Pérez and Sánchez-Martín (2015) note that the additional generosity and unlimited nature of this UA scheme, combined with lax job search requirements and heavy penalties for early retirement, effectively creates an alternative early-retirement path through a prolonged unemployment spell. Using a calibrated model, they find that reducing the additional generosity would increase older workers' labor supply. The ensuring welfare for older inactive workers, moreover, is significant but smaller than what can be compensated by the improvement in pension system finances. Using the 2012

[17] Until 2023, the replacement rate after the first 6 months was only 50 percent. In addition, the sum of UI benefits received is subject to an upper limit based on the number of dependent children claimed by the recipient.

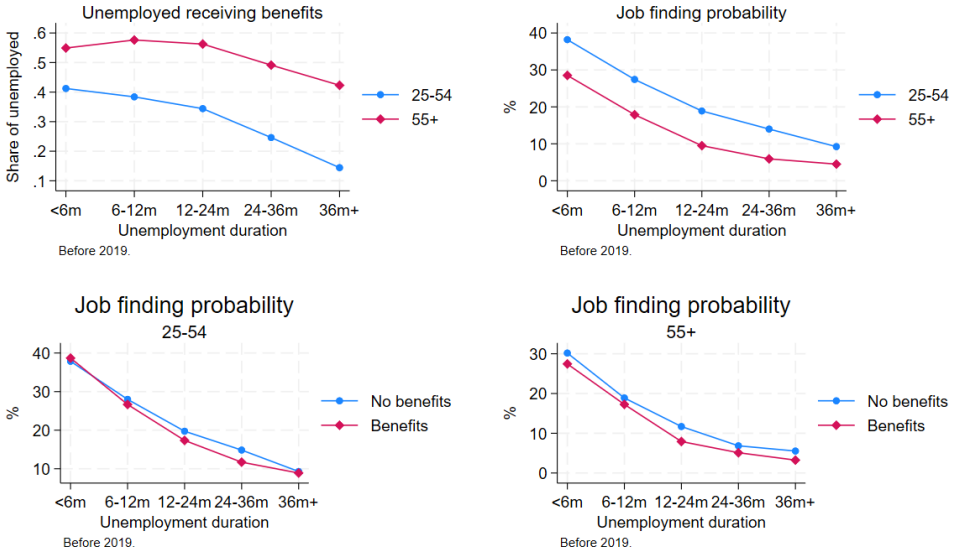
[18] Until 2024, the ability to combine UI with employment income, known as *complemento al empleo*, was only available to those in part-time employment. A reform approved in 2024 is set to loosen those requirements starting in 2025.

[19] Annex Figure A5 shows the distribution of benefit recipients by type of benefit for different age groups. UI is most common among the prime-aged, while UA is the most common program for those above 55 years of age.

[20] A reform approved in 2024 strengthens the incentives for re-employment by extending the reception of UA for up to 6 months once a worker has started a new job.

reform which raised the threshold for old-age UA as a source of exogenous identification via age-based discontinuities, Domenech-Arrumi and Vannutelli (2022) and Arranz and Garcia Serrano (2023) find that workers who lost eligibility upon the reform were more likely to return to employment in a shorter time, although at the expense of lower wages relative to their previous jobs. These results point to the challenging balance of supporting the long-term unemployed while also incentivizing re-employment without encouraging low job-quality matches. Against the background of such evidence, a reform was passed in 2024 that seeks to strengthen the job search and job take-up incentives of recipients by enabling them to combine UA benefits recipience with work income for six months.

Figure 10. Spain: Unemployment benefits and job finding probability by age and duration of unemployment



Sources: Encuesta de Población Activa and authors' calculations.
Note: Job finding probability defined as the number of workers transitioning from unemployment to employment between two quarters as a share of previous quarter unemployment.

Reflecting the design of UI and UA, the older unemployed are more likely than their prime-age counterparts to receive unemployment benefits, particularly at long durations of the joblessness spell. The top-left panel of Figure 10 shows the share of unemployed receiving benefits is higher among those aged 55 or more compared to prime-age workers at all durations.[21] Additionally, the share of unemployed receiving benefits decays at a slower rate for older workers along the duration profile, so that the gap in benefit take-up with respect to prime-age workers reaches almost 30 percentage points at very long durations. These differences are due not only to the higher share of workers in the 55+ group receiving the time-unlimited UA (Annex Figure A5), but

[21] We show data for the years prior to the reform that decreased the eligibility threshold for UA from 52 to 55 years of age in 2019 to better separate age groups.

also because older workers have on average longer contributory careers, making them entitled to longer UI durations prior to moving to UA.[22]

Older unemployed workers also have lower job-finding probabilities than their prime-age counterparts. As shown in the top-right panel of Figure 11, while both groups experience a deterioration of their job prospects throughout the unemployment spell, the prime-aged find jobs at a higher rate than older workers at all durations of unemployment, with the gap remaining approximately constant until the 3 years mark. Understanding which specific features of unemployment benefits encourage or discourage job taking, controlling for all other observed and unobserved individual characteristics of workers, is beyond the scope of this paper. However, given the particular features of the UA scheme which may discourage re-employment, the higher benefit take-up rate of older workers may be a contributing factor to their lower re-employment prospects.

Without controlling for other worker characteristics, unemployment benefits (UI or UA) recipience is associated with lower job finding probabilities, but the difference with non-benefit recipients is limited. The bottom right panel of Figure 10 shows that, among older workers, the job finding probability of benefits recipients is on average 2 percentage points below that of non-recipients across the unemployment duration spectrum. Meanwhile, for the prime-aged there is effectively no difference until the first year of unemployment and only a gap of 2-3 percentage points between 1 and 3 years.

Based on these results, only a limited fraction of the overall age gap in job finding probabilities in the top-right panel may be ascribable to benefits design and take-up.[23] Gaps in job finding probabilities between older and prime-age workers are substantially larger than those between the older unemployed who receive unemployment support and those who do not. This is because older workers' re-employment chances may be lower not only, or even mainly, due to financial disincentives to job search, but also because of other reasons such as their lower attractiveness for firms (Lazear, 1981; Heywood et al., 2008), human capital, health or adaptability to changes in the occupational structure of the economy (Autor and Dorn, 2009; Daniel and Heywood, 2007).

This analysis thus suggests that addressing the structural reasons behind the overall gap in job finding probabilities between the prime-age and older unemployed may be more effective at

[22] For example, to be entitled to one year of unemployment benefits a worker should have been employed for at least 1,080 days.

[23] This result contrasts with the previously mentioned studies by Domenech-Arrumi and Vannutelli (2022) and Arranz and Garcia Serrano (2023) that find a significant positive impact on job finding rates from the 3-year change in the threshold for old-age UA that took place in 2012. These studies provide a proper identification of the effect of longer benefit duration, beyond the scope of this paper, and their result should thus qualify our assessment. However, it should also be taken into account that the 2012 reform took place at a time of very high unemployment after the severe 2008 recession, and thus the results of such a large change in eligibility may not extend to more normal macroeconomic times in their full magnitude.

raising older workers' employment rates than only strengthening their financial incentives for job search through enhanced designed of UA. To quantify this difference, we carry out a simple back-of-the-envelope exercise based on Figure 10, following the methodology of Shimer (2012). We compute the reduction in the steady-state unemployment rate from two simple illustrative scenarios: 1) raising the job finding rate of unemployment benefits recipients to the level observed for non-benefits (unemployed) recipients; 2) raising the job finding rate of older workers to the level observed for prime-aged workers. While the first counterfactual would reduce the aggregate unemployment rate by just over 0.1 percentage points (compared to its 2016-2024 average), the latter would reduce it by almost 0.9 percentage points.

V.B UK

In the UK, those looking for work can claim either the Jobseeker's Allowance (JSA) or Universal Credit (UC). Since 2013, UC has gradually replaced the means-tested JSA, and the number of claimants increased during and after COVID-19. UC is available to people under the state pension age, both in and out of work, whose total savings (including partner or spouse) are below a £16,000 threshold. For UC recipients without a job, there are requirements to look for work or prepare for work, including with the help of a coach. UC is designed to incentivize working, and as such can be combined with employment income; UC payments fall as wages increase, but they increase again if the recipient stops working or wages decrease. This mitigates the potential deterrent effect that a sudden loss of benefits would have on returning to employment. While there is no limit on the hours worked to claim UC, the amount received from UC gradually declines as earnings rise.[24] As the JSA is being phased out, UC has become the main program for long-term unemployment support to those without other income or savings over the past decade. In the analysis below, therefore, we exclusively focus on the latter.[25]

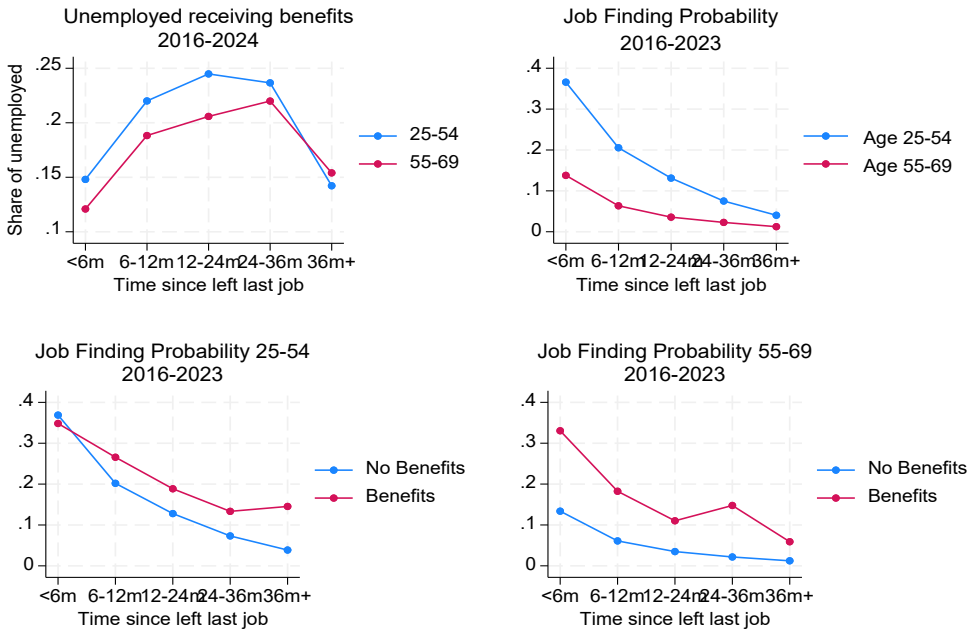
Benefit coverage of UC in the UK is overall lower than unemployment support in Spain across both age groups, but it also does not decline as pronouncedly with joblessness duration. The top left panel of Figure 11 plots the share of unemployed receiving UC by the months passed since their last job. Overall, coverage is lower than in Spain, most likely due to the means testing of benefits at the household level. Moreover, unlike in Spain, the duration profile of benefits take-up does not monotonically decrease; the fraction of unemployed who receive

[24] A "New Style" contribution based JSA is available for a maximum of 182 days, which can be claimed on its own or at the same time as UC, but it is only available to those who have paid sufficient national insurance contributions, usually in the 2 full tax years before the claim. Unlike UC, the new style JSA does not take into account savings and capital (both individual and partners), allowing people with savings of more than £16,000 to get the benefit. Although it is possible to also get UC at the same time as the new style JSA, the income from JSA is taken into account when assessing the UC grant. There is a small amount of double counting in official ONS figures and the LFS for those who claim both new style JSA and UC. According to the ONS's labor market overview related to claimant counts, the double counting increased at the start of the pandemic and has stabilized at approximately 1.0 - 1.5 percent of the claimant counts.

[25] Annex Figure B4 shows that UC claimant counts rose markedly over the pandemic and has remained at elevated ever since, for both prime-age and 55+ workers.

benefits increases with duration until the 2-year mark and then declines. Older workers have lower take-up rates than prime-age workers between six months and three years, possibly reflecting in part higher savings among the former group. Three years into an unemployment spell, a similar share of prime-age and older unemployed receive benefits.

Figure 11. UK. Unemployment benefits and job finding probability by age and time since left last job



Sources: UK Labour Force Survey.
Note: Job finding probability defined as the number of workers transitioning from unemployment to employment between two quarters as a share of previous quarter unemployment.

The rate at which the job finding rate declines throughout an unemployment spell in the UK also is different from Spain's. The top right panel shows that, like in Spain, the probability of older workers transitioning from unemployment to employment is less than half that of prime-age workers. However, unlike in Spain, this gap is wider at short durations and narrower for longer spells. The wider gap at shorter durations suggests that older workers either encounter more challenges in finding a new job or have lower preferences for re-employment early in their unemployment spell. The smaller gap at longer durations and the resulting flatness of the decline in the job finding probability throughout the unemployment spell tentatively suggest instead that factors such as human capital depreciation or stigma attached to lengthy unemployment duration may be smaller in the UK compared to Spain.

Also different from Spain, in the UK those receiving benefits have higher chances of re-employment than the non-recipients among both prime-age and older workers. For older

workers, claimants are twice more likely to be re-employed than those not receiving benefits, particularly at short durations. This is also the case for prime-age workers after 6 months of joblessness, although the gap is less stark. The higher job finding rate of UC recipients may be a result of the strict job searching conditionality built into UC. Those deemed able to work (not pregnant, with young children, or with disabilities) are required to work intensively with a "work coach" and are liable to a fine if they do not regularly carry out searching activities like writing a CV, signing up for job alerts, applying for vacancies, and attending meetings with their coach.[26] In comparison, Spain's active labor market policies may not yet be as extensive and effective.

VI. Health

As older workers constitute a rising share of the labor force, understanding the role of health for labor market outcomes is becoming an increasingly important, but at the same time complex, issue. While improvements in health have underpinned the increase in longevity rates in Advanced Economies, there is a "puzzle" when it comes to labor market implications (Banks et al., 2011). As health improves and life expectancy increases, careers get longer, and health problems become a constraint on labor force participation for a growing share of workers since health still tends to worsen with age. Moreover, work itself can be a greater cause of poor health for older workers compared to prime-age ones, particularly in more physically strenuous or stressful occupations.[27] As a result, while mortality rates have been falling steadily since the second half of the 20th century in both Spain and the UK, other measures of health, such as disability rates and self-reported health states, have not improved as much or even worsened in recent decades (García- Gómez et al., 2012; Banks et al., 2011, 2015).

A measurement challenge for surveys is that the self-reporting of health problems and the qualitative self-assessment of overall health status may be affected by socioeconomic conditions, family characteristics, and other aspects of personal wellbeing (Brown and Vickerstaff, 2011). Changing social and diagnostic norms, such as with respect to mental health in the UK, may also play a role. As a result, a given health condition may lead to different labor market decisions depending on one's perceived health.[28] Against this background, this section presents health trends using three different self-reported questions to provide a multi-dimensional perspective on health developments. These are the shares of population (including

[26] One important caveat in interpreting the results is that the roll-out of UC took place to a large extent during the COVID-19 pandemic and the post-pandemic recovery, a macroeconomic conjuncture where selected sectors were hit particularly hard and subsequently increased hiring sharply. Hence, the UC recipients in this time period and their job prospects may not be reflective of UC recipients in more conventional times.

[27] Several studies, for instance, find that increases in the state pension age in Spain and the UK led to worsening health outcomes and lower life expectancies, especially among workers in more physically strenuous occupations (Carrino et al., 2020; Bellés-Obrero et al., 2024).

[28] Some studies attempt to control for self-reporting bias in perceived health conditions. This, however, requires a survey containing both a self-assessed health status and factual questions regarding specific health conditions (see for instance Jones et al., 2010; García-Gómez et al., 2010).

for different age groups, e.g. older vs. prime-aged): (i) reporting a long-term health condition, (ii) reporting a physical limitation in their daily activities, and (iii) receiving permanent disability or sickness benefits. Although self-reported, the answers to these questions go much beyond an entirely qualitative assessment (e.g., being in good or bad health). While the first is more likely to entail a personal judgement, the second captures the possible implications of health for work activities, and the third is a more factual indicator of severe health issues.

In both countries, these measures generally suggest a broad-based worsening of health since 2019, possibly more pronounced in the UK. While the observed deterioration in health was not necessarily larger for older workers, its repercussions for labor participation may be worse for this group given their already weaker initial health. We further show that, in both countries, older individuals are more likely to work fewer hours due to health issues. Moreover, those who leave their jobs and become inactive due to personal health problems, regardless of age, are less likely to return to employment within a year compared to those who leave the labor force for other reasons.

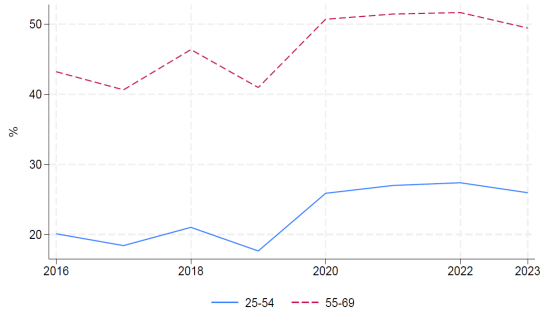
VI.A Spain

While older worker's health had been improving in Spain prior to the pandemic, its impact on labor market attachment had been found to be strong. A recent overview by Crespo et al. (2023) found that, despite Spain's relatively high incidence of chronic and mobility issues compared to European peers (especially among women), health indicators for workers aged 55 to 69 broadly improved between 2004 and 2015.[29] However, García-Gómez et al. (2012) show that improved long-term trends in health indicators are not necessarily tied to higher rates of attachment to the labor market. Similarly, Benavides et al. (2015) argue that health-related impediments to work may persist even when broader health indicators and mortality rates improve. Specifically, over the period 2004-2010, they find that Spanish older workers with permanent disabilities (PDs) were more likely to have more and longer periods of joblessness, which often become gateways into early retirement. Furthermore, García-Gómez et al. (2010) find that, within a sample of 9 European countries, Spain had one of the largest gaps between older and prime-age workers with respect to the impact of health shocks on the likelihood of moving to inactivity and retirement.

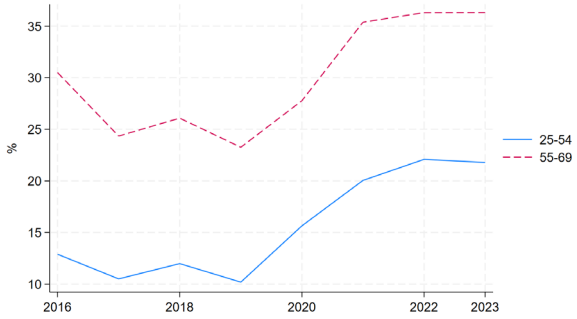
[29] Crespo et al. (2023) also find significant gender gaps in health, with women reporting generally higher rates of chronic problems, mental health, and limitations in mobility than males. These disparities widen among older groups of workers.

Figure 12. Spain: Self-reported health metrics

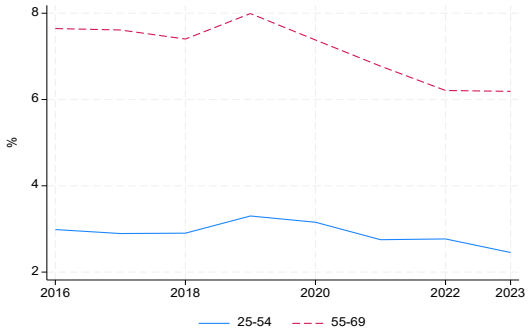
A. Share of population suffering from a long-standing illness or condition



B. Share of population with health-related limitations



C. Share of population receiving disability support

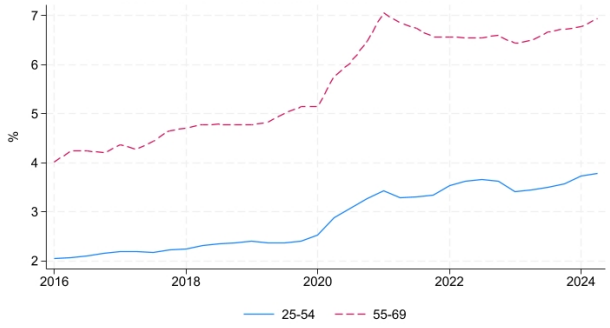


Sources: Encuesta de Condiciones de Vida and authors' calculations.

Notes: Panel A: Share of people who declare suffering from a chronic (long-standing) illness or condition. Panel B: Share of the population in each age bracket that indicated to be restricted through long-standing limitations in their usual activities due to health problems. These limitations can be of physical, mental or emotional nature. Panel C: Share of the population reporting government transfers related to sickness or disability.

Various dimensions of health appear to have deteriorated durably since the pandemic for both older and prime-age workers. The first panel of Figure 12 shows the share of the population declaring to be suffering from a long-standing illness or condition from the ECV. Although self-assessed, adverse health conditions were flat in the years prior to the pandemic before rising sharply in 2020 and remaining above pre-pandemic levels since then. This holds true for both prime-age and 55+ workers.[30] While this may be driven by COVID-related health complications, it could also in principle reflect worsening health perceptions among the general population. Therefore, we investigate other health indicators available in the surveys at our disposal. First, the share of the population claiming to

Figure 13. Spain: Share of workers absent from work due to health issues



Sources: Encuesta de Población Activa and authors' calculations.

[30] Although not shown, these developments are also common to both men and women.

be restricted in their daily activities due to health limitations of any kind also rose considerably and persistently in recent years (Figure 12, top right). Second, by contrast, the share of individuals receiving disability benefits has remained constant for the prime-aged and decreased slightly among older workers (Figure 12, bottom panel). Taken together, these trends tentatively suggest that worsening health may have had some significant implications for physical limitations but may not have resulted in an increase in acute or complete loss of physical capacities.[31]

Poor health has had adverse consequences for workers' labor supply at the intensive margin. Employed workers with health problems may need to take temporary absences, thus reducing the average number of hours worked in the economy. Figure 13 indeed shows an increase in work absenteeism due to health issues since 2016, composed by a long-run trend which was amplified by COVID-19.[32] Importantly, both the secular trend and the spike related to the pandemic appear to be more acute for those aged 55-69 compared to the prime-aged. This evidence on worsening health outcomes is also backed by other sources, for instance the rise in temporary disability claims to the social security system since the pandemic (Granado Martínez, 2024). Moreover, the recent lengthening in waiting lists for scheduled procedures in the public health system may keep those with medical issues away from work for longer.[33]

Poor health also affects the extensive margin of older workers' labor supply, that is their participation in the labor market. Not only do older workers struggle with poor health in greater numbers, but also, as shown in Annex Figure A6, a larger share of those in poor health are not in employment. This is explained by the fact that workers who become jobless for health reasons are less likely to return to employment. Figure 14 plots the cumulative job finding probability for workers who recently became inactive for health or non-health related issues over one year. Re-employment chances are much lower for those with health problems vis-à-vis their healthy counterparts, especially among the prime-age and 55-59 groups.[34] The impact of health of the re-employment likelihood of the 55-59 years-old unemployed highlights the relevance of worsening health trends for labor force participation. Should health conditions continue to worsen, the rise in the labor force participation of older workers of the last decade could slow or level off.

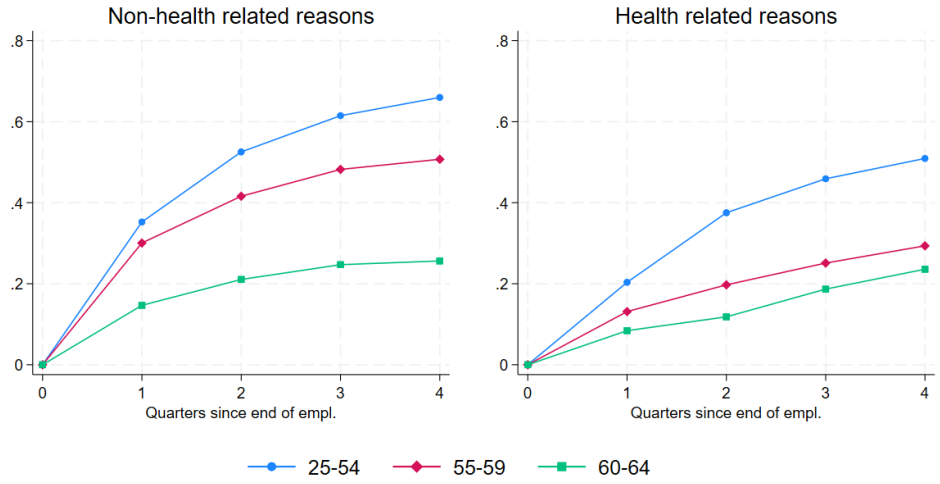
[31] The ECV question on disability benefits, simply asks whether an individual has received any public transfer in the form of disability support. This question does not differentiate between permanent or temporary disability, nor for its degree. However, data from the Ministry of Social Security, Migration, and Inclusion on recipients of contributory and non-contributory disability pensions shows very similar levels and trends across age groups.

[32] The figure includes both workers who did not work at all in the week prior to their survey interview as well as those who worked fewer hours.

[33] See coverage of the waiting lists in the press; for instance "Casi 850.000 ciudadanos están en lista de espera para ser operados en la sanidad pública, el peor dato desde que hay registros" (El País, 16 April 2024).

[34] Health matters less for re-employment probabilities among the 60-64 year-olds likely because those leaving their jobs in good health are very likely to retire and thus exit the labor force permanently with high probability.

Figure 14. Spain: Probability of re-employment after job-loss related to health vs other reasons



Sources: Encuesta de Población Activa and authors' calculations.

Note: The plots show the cumulative probability of finding a job for workers previously inactive due to non-health reasons (left) versus health-related reasons (right).

VI.B UK

The relationship between health, labor market participation, and retirement in the UK is the subject of a large research strand. Using subjective and objective health conditions as well as health-related work limitations, numerous studies establish that health shocks are an important driver of falling labor supply of older workers (Disney et al., 2006; Jones et al., 2010; Britton and French, 2020; Blundell et al., 2023). For instance, Blundell et al. (2023) find that worsening health can explain between 2 and 9 percent of the employment decline between the ages of 50 and 70 in England, with larger shares for men and less educated workers. Banks et al. (2011) also note that disability benefits in the UK are frequent gateways into retirement. However, this pathway is very sensitive to the design of the disability support program and the built-in incentives for work.

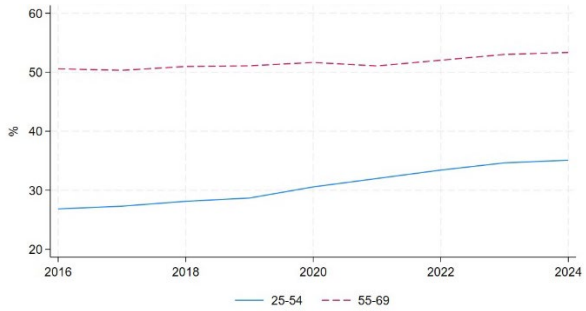
The different health indicators we consider also show a worsening pre-pandemic trend in the UK as well as a further deterioration since 2020 (Figure 15). However, in some cases these patterns are more pronounced among prime-age workers than for older ones. Both differences and similarities with Spain emerge from Figure 15. First, the shares of workers reporting a long-term health condition and ensuing limitations for daily activities is slightly higher than in Spain throughout 2016-2024 for both older and prime-age workers, but with a similar gap between the two age groups.[35] Second, in line with Spain, the UK experienced a general deterioration in self-reported health conditions in the wake of the pandemic. Third, unlike in Spain, in the UK the worsening has been markedly more pronounced among prime-age workers compared to older

[35] While the questions showed in the figure refer to generic daily activities, additional questions in the LFS ask whether health conditions limit the type and amount of work. These show that older people, particularly those employed in more physically intense occupations, also report more work-related health limitations.

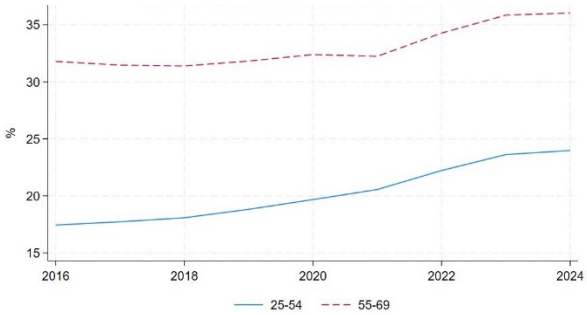
ones.[36] When considering disability benefits, the share of recipients is higher than in Spain for both age groups. Moreover, the share rose since 2020, suggesting that the worsening health conditions may be acute in the UK.[37]

Figure 15. UK: Self-reported health metrics

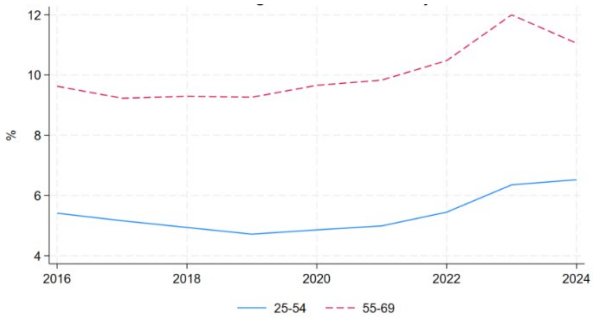
A. Share of population suffering from a long-term physical or mental condition



B. Share of population with long term health conditions impacting activities



C. - Share of population receiving disability support



Sources: UK Labour Force Survey, and authors' calculations.

Note: Panel A: Share of people reporting a long-term physical or mental health condition. Panel B: People with long-term mental or physical condition who answer "yes, a lot" and "yes, a little to" to the question "Does your contion or illness reduce your ability to carry out day-to-day activities." Panel C: Share of the population reporting government transfers related to sickness or disability.

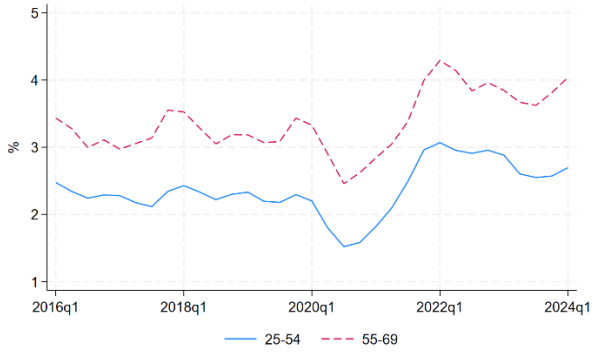
Figure 16 suggests that the general worsening of health conditions has had tangible adverse implications for the intensive margin of labor supply in the UK too. The share of employed workers with fewer hours than usual because of health reasons shows a persistent level shift in 2021-2024 compared to 2019. This rise, however, is of comparable magnitude for the prime-aged and those in the 55-69 age range.

[36] One potential explanation for these differences with Spain is the explicit mention of mental health in the question posed in the LFS, which possibly nudges respondents to consider their health conditions more comprehensively compared to Spain's ECV. Moreover, the increased attention given to mental health, particularly among younger generations, may drive some of the differential increase in self-reported health conditions between prime-age and older workers, which seems to pre-date the pandemic. Annex Figure B5 shows how this this difference is even more marked when focusing solely on mental health.

[37] Both the level of total disability recipients as a share of population and the increasing trend since 2020 based on the LFS are consistent with official statistics from the Department of Work and Pensions, as reported by Latimer et al. (2024).

In the UK, as in Spain, labor market inactivity for health-related reasons tends to be more persistent, raising concerns that the post-COVID deterioration in health could affect older workers' labor market activity and aggregate participation. Focusing on those workers who moved from employment to inactivity within the last quarter, Figure 17 shows that those who left due to health problems have lower probabilities of re-employment over the following year.[38] Similar to Spain, the larger differences are among the prime-age and 55-59 groups. The gap is smaller among those aged 60-64, likely because retirement—a typically permanent exit from the labor force—is the predominant reason for transitioning to inactivity.

Figure 16. UK: Share of workers absent from work due to sickness or injury



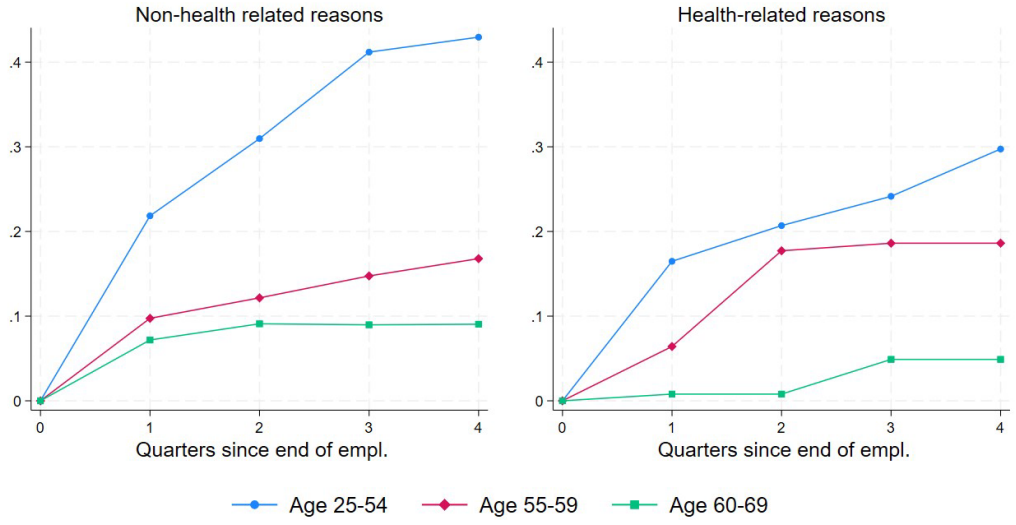
Sources: UK Labour Force Survey, and authors' calculations.
Note: The figure plots the share of workers who answer that they worked fewer hours than usual only due to being sick.

VII. Job Characteristics and Retirement

In this final analytical section, we study whether certain job characteristics and working arrangements are aligned with older peoples' preferences, and whether older workers tend to work longer when their jobs have certain age friendly characteristics. Job satisfaction and the ability to adjust the modalities of work to the other necessities of one's life are crucial for labor market attachment at all ages. Moreover, several studies show that older workers have different preferences from younger ones and tend to value more prominently certain aspects of their jobs (Maestas et al., 2018; Hudomiet et al., 2019; Ameriks et al., 2020). These include more autonomy and flexibility in setting their schedules, more moderate physical efforts, lower mental stress levels, lower commuting times, and the ability to telework. This literature also includes empirical support for these conclusions in the two countries studied in this paper. For instance, Cantareto-Prieto et al. (2018) show that in Spain, as well as in other countries, job satisfaction is associated with a lower probability of early retirement. Gielen (2009) shows that in the UK older workers with the ability to cut hours worked are less likely to take early retirement, while those who work excess hours and are unable to reduce them are more likely to retire early—especially among women.

[38] The UK possesses an Employment Support Allowance scheme, now included in UC, to support workers with disability and health conditions affecting their ability to work. The program includes both financial assistance and practical support to return into work and allows combining the monetary benefit with some work earnings.

Figure 17. UK: Probability of re-employment after job -loss related to health vs other reasons



Sources: UK Labour Force Survey and authors' calculations.
Note: The plots show the cumulative probability of finding a job for workers previously inactive due to non-health reasons (left) versus health-related reasons (right).

Older workers are not always employed in jobs that are compatible with their preferences and needs. Using a multidimensional old age-friendliness index, Acemoglu et al. (2022), remark that, although the nature of many occupations has become more old-age friendly in the past 30 years, the share of older workers employed in the most age-friendly jobs has not increased markedly. This leaves room for supporting workers' transitions into these jobs in the years prior to retirement. However, given that transitions to new occupations can be challenging in later stages of one's career, there may also be a need to think of ways to make all types of jobs more age friendly.

To provide a general overview, we look into the average characteristics of broad occupation groups (i.e., 1-digit major occupations) and inspect whether they are associated with higher average retirement ages.[39] Different patterns emerge between Spain and the UK. In the former, those employed in jobs with more old age-friendly features tend to retire later, while in the latter this relationship is less clear. A possible explanation is that in the UK the increasing presence of defined-contribution pension schemes (as opposed to defined benefit schemes more prevalent

[39] We compute the average retirement age using the sample of workers who report being retired and left their last job less than three months ago. The survey does not allow us to distinguish between voluntary and involuntary retirement, or to account for those who retired after a short spell of inactivity. Dorn and Sousa-Poza (2010) note that involuntary retirement constitutes a high share of *early* retirement in Spain (almost a third) due to either external economic conditions affecting the employer or the workers' poor health. Regarding the former issue, the use of years 2016-2024 excludes periods such as the Global Financial Crisis when forced early retirement may have been a widespread downsizing practice by firms.

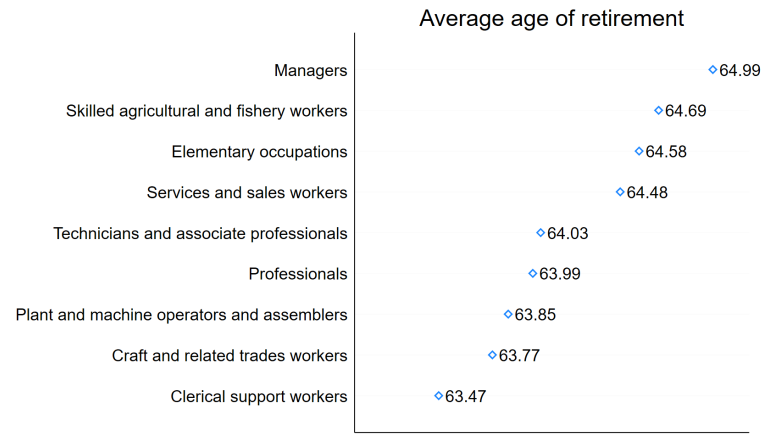
in Spain) create the need for workers to retire at later ages due to financial constraints, despite occupying less “age-friendly” jobs.

Two caveats are warranted in interpreting this analysis. First, 1-digit occupation groups are very broad and mask substantial differences in the nature of work among their sub-groups. However, we find that they differ enough to provide salient variation in terms of working arrangements and job characteristics. Second, the analysis does not necessarily imply that workers should consider switching jobs in old age.[40] It can also help identify some salient job preferences that may be incorporated in older workers’ job characteristics to encourage them to stay in employment.

VII.A Spain

What kind of factors matter for retirement timing decisions in Spain? Several studies find that financial incentives embedded in the pension system benefits play a role but only explain a fraction of the variation in retirement timing across workers (Boldrin et al., 2004; Vegas Sánchez et al., 2013; García-Gómez et al. 2023). This hints at a roll of other factors, including job-specific characteristics that may induce older workers to extend their working lives (Siegrist et al., 2007).

Figure 18: Spain. Age of Retirement by Occupation



Sources: Encuesta de Población Activa and authors’ calculations.

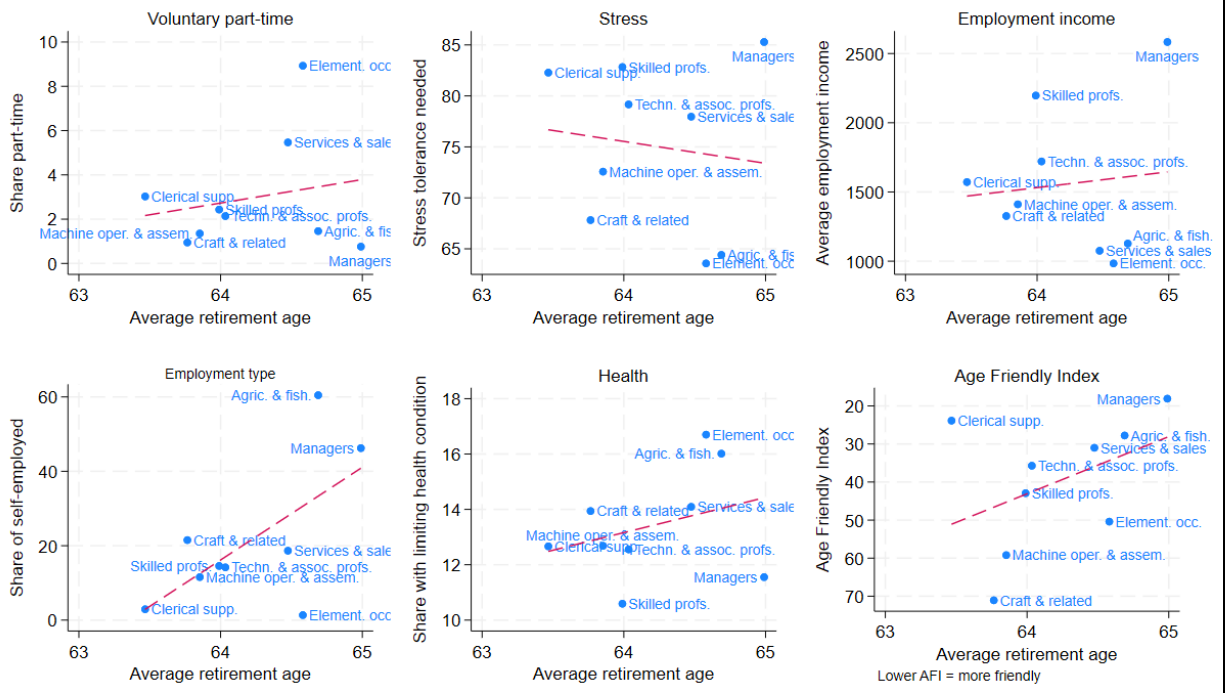
There is, in fact, significant variance in the retirement age in Spain across jobs. Figure 18 plots the average retirement age for nine major occupation groups.[41] The range goes from 63.5 years for clerical support workers to 65 years for managers. After managers, a role that usually requires a high level of education, the occupation groups with the highest average retirement ages are agricultural and fishery workers, elementary occupations, and services and sales workers. Workers in these occupations tend to have lower education and their tasks generally

[40] Several studies show that older workers have significantly lower job-to-job transition rates than prime-age workers (Aitken and Singh, 2023; Dabla-Norris et al., 2023). Thus, it may be more challenging, for example, for older workers to move from being machine operators to company managers or librarians to lengthen their careers.

[41] EPA’s longitudinal dataset contains age information in five-year brackets. Thus, to get the average retirement age, we resort to the cross-sectional files. It is defined, for each quarter, as the average age of workers who claim to be inactive due to retirement and last held a job at most 3 months ago.

classify as manual, contrasting with the non-routine cognitive nature of managerial roles. As such, there is no narrow set of attributes common to all the occupations with high average retirement ages. Each job has characteristics that may be more or less attractive to older workers.

Figure 19. Spain: Average Age of Retirement and Job Characteristics by Occupation



Sources: Encuesta de Población Activa, Encuesta de Condiciones de Vida, O*NET, Acemoglu et al. (2022), and authors' calculations.

Notes: Top left: overall share of workers in voluntary part-time schemes. Top middle: average index of stress tolerance needed to practice each occupation. A higher value reflects a more stressful occupation. Top right: average monthly employment income (2015 Euros). Bottom left: overall share of workers with self-employed status. Bottom middle: share of workers who declare having a health condition that limits their daily activities. Bottom right: Age-Friendly Jobs Index from Acemoglu et al. (2022). A lower value indicates age-friendlier jobs. The y-axis is reversed.

While it is difficult to identify simple policy recommendations to make jobs more accommodating to older workers, it is possible to single out a couple of characteristics of each group of occupations that may be conducive to delaying retirement. Figure 19 explores several salient dimensions. The objective is not to claim any causal effects but to give a qualitative and holistic view of possible predictors of later retirement.

The share of workers on voluntary part-time schedules is positively associated with average retirement ages (top left panel). This is especially visible for elementary occupations and services and sales, which may reflect older workers' preference for reducing their hours

gradually rather than withdrawing abruptly from the labor force. An additional illustration of older workers' preference for flexibility and autonomy is the positive relationship between the share of self-employment and retirement age, although this correlation also likely reflects the generally weaker pension benefit entitlements of self-employed workers (bottom left).

Occupations that entail higher levels of stress tend to be associated with earlier retirement (top middle panel). Managers are an exception, which is perhaps explained by the high average earnings in this occupation, a variable that is positively correlated with the retirement age (top right). High earnings may incentivize delayed retirement both because they entail a higher opportunity cost of not working, but also because in a defined-benefit pension system such as Spain's, additional years of well-remunerated employment also add to the "base years" over which pension benefits are computed, thus increasing expected future (pension) income.[42] Finally, the share of workers who claim to be limited in their activities due to health issues is also positively correlated with retirement age. Beyond confounding factors, this might reflect the ability of some professions to accommodate workers with limitations, although it is hard to infer a concrete conclusion given that the question asked in the ECV on limitation is very broad in scope.

Overall, the "age-friendliness" of jobs correlates positively with average retirement ages. The previous plots show how workers may value different job-specific characteristics in their decision of when to retire. Managers, for instance, despite having stressful jobs with little flexibility, enjoy high salaries and greater work autonomy. Meanwhile, workers in elementary occupations, although earning more modest wages, may retire later as they enjoy flexibility and low levels of stress. Acemoglu et al. (2022) try to capture this diverse spectrum of job characteristics into a comprehensive occupation-level "Age-Friendliness Index."[43] The last panel shows that this index is positively correlated with average retirement ages in Spain. Overall, the index seems to broadly reflect the essence of the groups of occupations captured in the previous panels. For example, physically intense occupations such as plant operators or craft trades are not very age-friendly while—likely for different reasons—managers, agricultural workers, and sales workers are occupations whose characteristics are more aligned with older workers' preferences.

[42] The positive relationship between earnings and the average retirement age is arguably weak and would probably disappear if managers were excluded. Hence, this channel may not necessarily apply to all jobs, especially when other more pressing considerations, such as health, are involved.

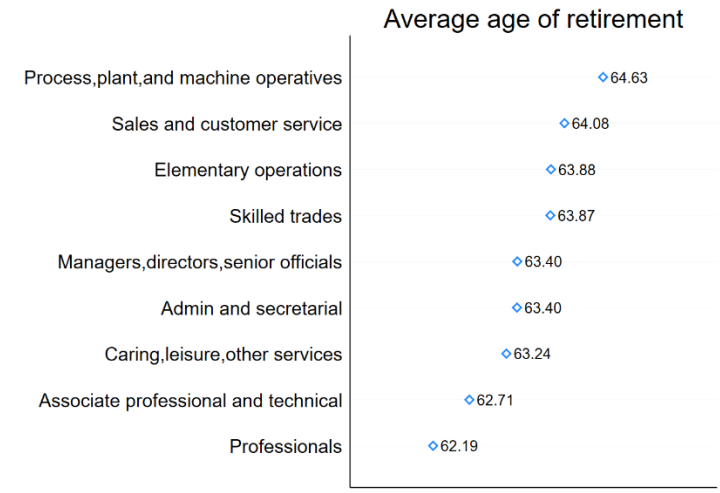
[43] According to the authors, individuals tend to prefer jobs that require lower physical exertion, less exposure to harsh environmental conditions and hazards, and provide a sense of accomplishment and overall better work conditions. Hence, even though it is an amalgamation of several complex job characteristics, this Age Friendliness Index provides a good summary of older worker's preferences.

VII.B UK

We examine the characteristics potentially associated with later retirement in the UK using the equivalent 1-digit occupation groups (Figure 20). The occupations with higher retirement ages tend to be routine and manual in nature—machine operators, sales workers, skilled trades, elementary occupations—while "white collar" groups, characterized by more non-routine and cognitive tasks, have lower average retirement ages.

Figure 21 correlates the job characteristics related to older workers' preferences with average retirement ages by occupation group. Compared to Spain, this association is less clearcut, as several of these job features exhibit no relationship with the retirement age or one that is qualitatively different from the one prevailing in Spain. First, flexible work conditions, reflected by the share of voluntary-part time employment, do not have a clear relationship with retirement age (top left panel). Jobs in personal services, sales, and elementary occupations have high rates of voluntary part-time work, but their average retirement ages are comparable to those of associate and technical jobs, and skilled trade occupations, respectively, despite the latter having less flexibility regarding hours worked. On the other hand, self-employment (bottom left panel), which also proxies for flexibility and autonomy seems to be associated with later retirement (with skilled trades being an outlier); this might reflect lower pension benefit entitlements pushing the self-employed to work longer.

Figure 20. UK: Age of Retirement by Occupation

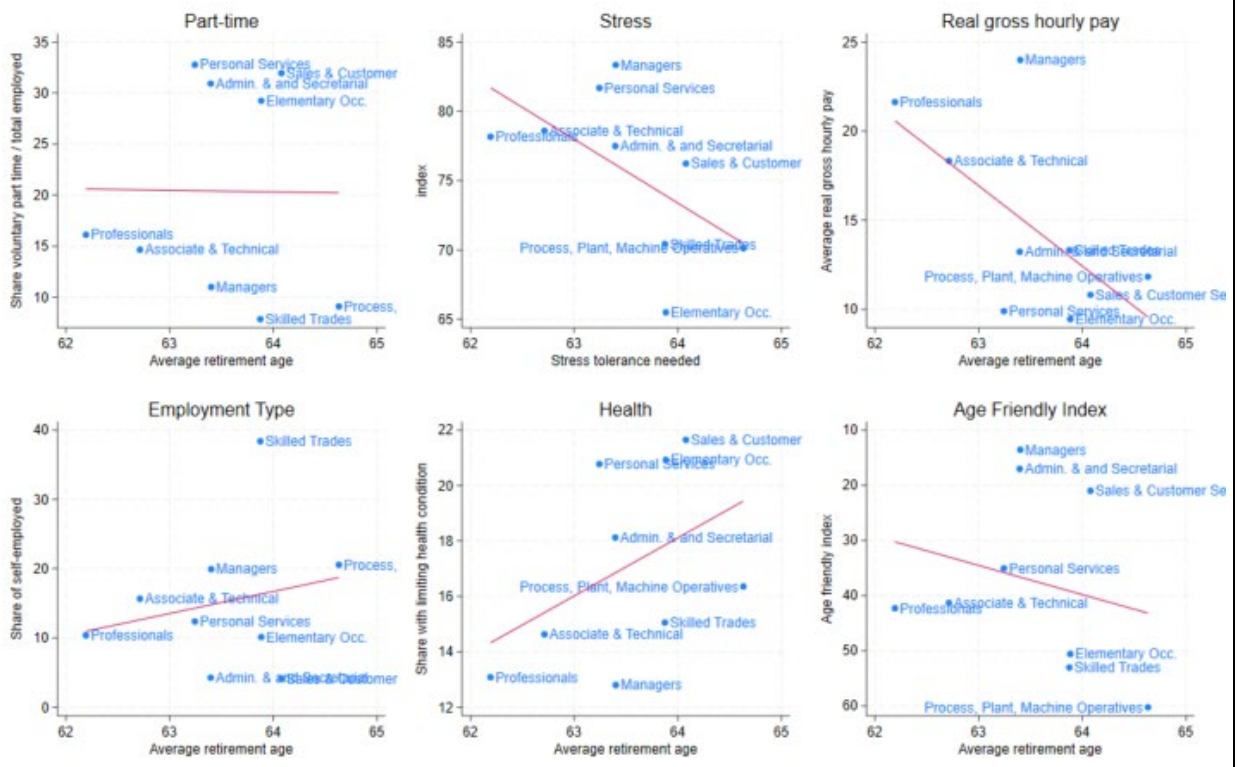


Sources: UK Labour Force Survey and authors' calculations.

Given that previous sections showed that long-term health issues can be a drag on older workers' participation, higher retirement ages would be expected in occupations that have lower stress levels and that can more easily accommodate physical limitations, all else equal. High-stress jobs, such as professional and technical occupations, indeed tend to have lower

retirement ages in the UK (top center panel). So do occupations with a high share of workers who experience health-related limitations.[44]

Figure 21. UK: Average Age of Retirement and Job Characteristics by Occupation



Sources: UK Labour Force Survey; O*NET; Acemoglu et al (2022); authors' calculations.
Notes: Top left: overall share of workers in voluntary part-time schemes. Top middle: average index of stress tolerance needed to practice each occupation. A higher value reflects a more stressful occupation. Top right: median real hourly pay (2019 pounds). Bottom left: overall share of workers with self-employed status. Bottom middle: share of workers who declare having a health condition that limits their daily activities a lot or a little. Bottom right: Age-Friendly Jobs Index from Acemoglu et al. (2022). A lower value indicates age-friendlier jobs. The y-axis is reversed.

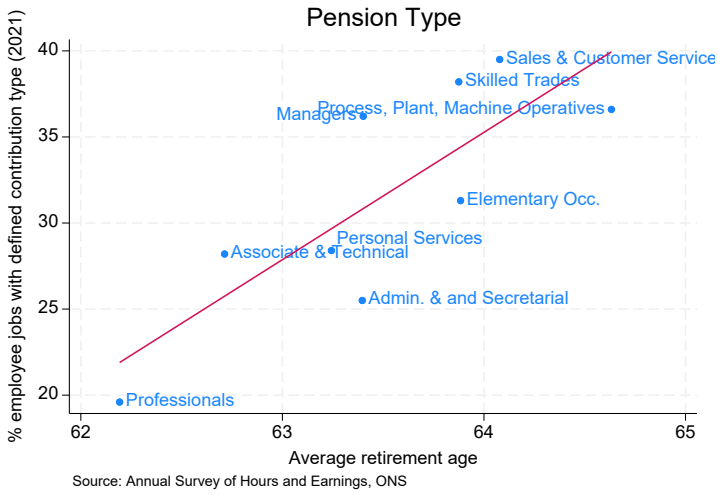
Occupations with higher hourly wages tend to have earlier retirement ages (top right panel), which is a stark difference with Spain. One possible reason for this is the increasing predominance of defined contribution pension schemes in the UK, which often induces workers to delay retirement for financial reasons. Finally, also in contrast with Spain, the multi-dimensional Age-Friendliness Index is negatively associated with retirement age in the UK.

[44] Like in Spain, we interpret this variable as a proxy for occupations' ability to accommodate workers' physical limitations, thus facilitating old-age employment. However, it should be acknowledged that limitations in the LFS survey questions on health render it difficult to fully determine whether the high share of workers reporting limitations is reflective of the ability of those jobs to accommodate health-related challenges or of the job itself being the cause of those health issues.

Occupation groups that on average are less compatible with older workers' preferences tend to have higher retirement ages.

As noted above, a possible explanation for the less consistent relationship between job characteristics and retirement age in the UK is the different pension system, which may lead workers to delay retirement due to financial concerns. Compared to many OECD countries, the UK is characterized by less generous state pensions (both non-contributory and earnings-related) and a high and growing incidence of defined-contribution occupational pension schemes, as well as individual retirement accounts (OECD, 2023).

Figure 22. UK: Age of Retirement and Share of workers in Defined Contribution Schemes



Sources: UK Labour Force Survey, Annual Survey of Hours and Earnings, and authors' calculations.

The transition to defined contribution schemes the UK underwent over the past two decades likely entailed a lengthening of working lives in particular for workers in low-earnings occupations. In defined contribution schemes, prospective pension benefits are more tightly linked to the cumulative value of contributions over their careers. Workers who become eligible to a pension but whose retirement accounts do not guarantee a satisfactory income level therefore have strong incentives to continue working (Arkani and Gough, 2007; Blundell et al., 2004; Banks et al., 2007; Flinn and Yi, 2016, Schils, 2008). This concern may dominate job characteristics in determining the timing of retirement. Several studies, by both academics and by the Department of Work and Pensions, find that a large proportion of the working age population faces insufficient retirement income based on their past and prospective pension contributions (DWP, 2014b). These workers are more highly concentrated in less skill-intensive and lower-paid occupations (DWP, 2019, 2024).[45] These findings are consistent with the negative relationship between earnings and retirement ages in Figure 21.

[45] For instance, DWP (2019) finds that workers in less skill-intensive occupations are less likely to rate as "important" contributing to their retirement accounts. Meanwhile, DWP (2024) also finds that low-income earners, especially at young ages, are more likely to opt out of employer-sponsored retirement schemes because they may need to money for more urgent short-term needs, resulting in lower personal retirement funds by the end of the career.

Moreover, the UK implemented reforms to facilitate work at older ages while also receiving pension benefits earlier than peer countries (Phillipson et al., 2016). Figure 22 provides some tentative support for this channel, showing that occupations where a higher share of workers have defined contribution instead of defined benefit plans also tend to exhibit higher retirement ages.

VIII. Discussion and Conclusion

This paper provides a descriptive exploration of recent developments in the labor force participation of older workers in Spain and the UK and the factors influencing their labor market decisions. Our analysis reveals a long-term trend of increasing activity in Spain, especially among workers aged 55-69, even after the pandemic shock. Contrarily, the UK has witnessed a decrease in participation rates in the post-pandemic years, especially among those aged between 55 and 59.

A strong contributor to rising participation in Spain has been the declining share of the population moving from activity to inactivity. In turn, the latter reflects growing attachment of older workers to the labor market against the background of past pension reforms that incentivized delaying retirement and a steady improvement in the labor market situation. To a smaller extent, the rising share of inactive workers moving to activity has also increased participation in Spain, fueled by a fall in those discouraged from finding a job in a strong labor market. In the UK, the fall in inflows from inactivity to activity and a rise in transitions from unemployment to inactivity are the main drivers of the decline in older workers' participation. However, it may still be too early to know the extent to which these developments are structural, and thus persistent, or still reflect the long tail of the post-COVID cycle.

Understanding better the drivers of inactivity is crucial to inform possible instruments to incentivize longer careers among older workers. Beyond pension reforms, reducing job search discouragement, improving health and disability outcomes, facilitating the combination of work with family care or directly supporting the latter, and providing age-friendly work arrangements can all help boost labor market attachment.

Raising incentives for and minimizing the costs of job search can improve re-employment chances of older workers. The unemployment benefits system in both countries can be leveraged to disincentivize early retirement. In Spain, the recent reform of *Subsidio por Desempleo* is a step in the right direction towards stronger job take-up by the unemployed aged 52 and above, primarily because it will enable those who find jobs to combine employment earnings with benefits for 6 months. However, the absence of duration limits to benefit receipt calls for strengthening activation requirements in parallel (see e.g. IMF, 2024). However, the

analysis in this paper points to other potentially more important structural drivers behind the low job finding rate of the older unemployed, which declines fast before workers even become eligible for unemployment assistance. In the UK, the component of Universal Credit targeted to the unemployed seems to be associated with higher job finding probabilities for its recipients. This suggests that the job search requirements and the ability to combine benefits with employment earnings might be providing the right set of incentives.

With careers extending into the mid- to late-60s, decreasing the incidence of adverse health outcomes and facilitating work for people with health issues becomes paramount. If not reversed, worsening health trends in both countries would not only be concerning in and of themselves but could also weigh on future labor force participation of older workers. As shown in Section VI, the share of the population that declares suffering from long-term health problems or being limited in their activities due to health issues has risen durably since the pandemic.

Lastly, our results highlight the importance of adapting working arrangements to the needs and preferences of older workers. Be it flexibility in working hours, stress-reduction measures, or the accommodation of physical and mental limitations in the workplace, there are many pathways for making occupations more suitable for older workers. In Spain, occupations with later retirement ages offer at least some of these age-friendly features. In the UK, however, this pattern is less clear. A possible reason is that many age-unfriendly occupations are also characterized by low earnings and low expected pension benefits, thus requiring longer working lives before retirement gets financially feasible. Overall, our results highlight the scope for enhancing the participation of older individuals by better catering to their work arrangement preferences—or, to the extent possible, encouraging their transition to age-friendly occupations at late career stages. Such changes can be accomplished not only (or necessarily) through legislation but also through collective bargaining where it is extensive, such as in Spain. The latter would place discussion over these initiatives within the broader dialogue between employees and employers, which could better reflect workers' preferences and firms' effective ability to implement them.

As these takeaways show, many themes affecting labor market decisions of older workers are tightly interconnected. It is thus important to take an "all-encompassing" policy approach to supporting labor force participation of older workers, accounting for linkages across different areas, such as flexible work arrangements, health limitations, and family caring needs. As life expectancy further improves, policymakers should place labor market policies within the context of the broader social shifts that come with ageing populations (Loretto, 2010, Scott, 2023), such by as restructuring the education system to support life-long learning and investing more in preventive healthcare.

In the UK, the Department for Work and Pensions (2014a, 2014b) published a strategy framework that identified critical areas of action and detailed several policy measures that, when considered in a bundle, could improve the working lives of older individuals. Policies such as the Employment Equality Regulations of 2011, which legislated against workplace age discrimination and mandatory retirements by employers, or the extension of the right to request flexible work in 2014, are good examples of paths that can be taken by policymakers.[46]

In Spain, although no similar comprehensive strategy has been designed, individual steps have also been taken to address ageing and labor market participation at older ages. For instance, the Royal Decree Law on "work-life balance" (RDL 5/2023) introduces the right for workers to request adjustments to their schedules if they serve as informal carers of elderly or disabled relatives. Moreover, the National Recovery and Resilience Plan includes significant investments in the professionalization of long-term care services.[47] While not explicitly targeting participation rates, these measures might help free some older family members from long-term care for the elderly, thereby making it easier for them to participate in the labor market.

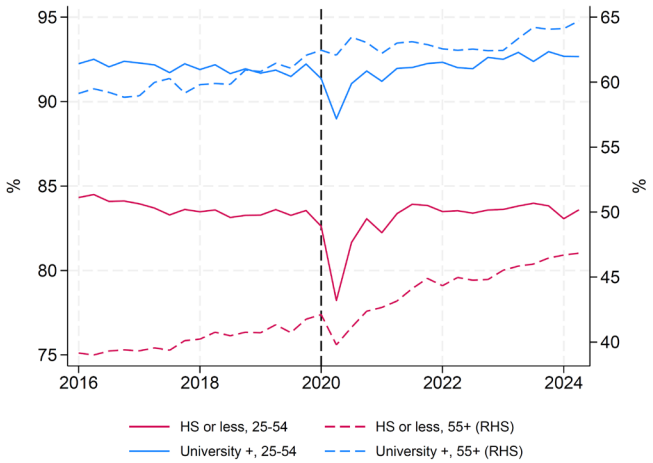
Several additional themes not addressed in this paper also deserve attention. As debt, mortgages, and financial wealth can all play an important role in the decision to participate in the labor market, the role of personal finances for retirement must be better understood (Van der Klaauw and Wolpin, 2008; Coile and Levine, 2011). For instance, during the pandemic, the sharp financial market recovery and housing boom may have incentivized early retirement for higher-income workers with large individual savings accounts in the UK (Duval et al., 2022). Lastly, artificial intelligence and technological change more broadly pose both risks and opportunities for older workers. On the one hand, technological disruption may turn some tasks obsolete, disproportionately those taken by older workers (Acemoglu and Restrepo, 2020). On the other hand, it may enhance their productivity by making advanced skills more accessible to them (e.g., coding) and removing physical and mental stress barriers (Acemoglu, et al., 2023). On-the-job training and life-long learning programs will have a critical role to play in ensuring older workers are well equipped to reap the benefits of technological change (Lopez Sanchez and Belso Martinez, 2014).

[46] See Phillipson et al. (2016) and Flynn and Yi (2016) on a review of policies undertaken in the UK at the beginning of the 2000s and after the GFC.

[47] See PERTE de economía social y de los cuidados | Plan de Recuperación, Transformación y Resiliencia Gobierno de España.

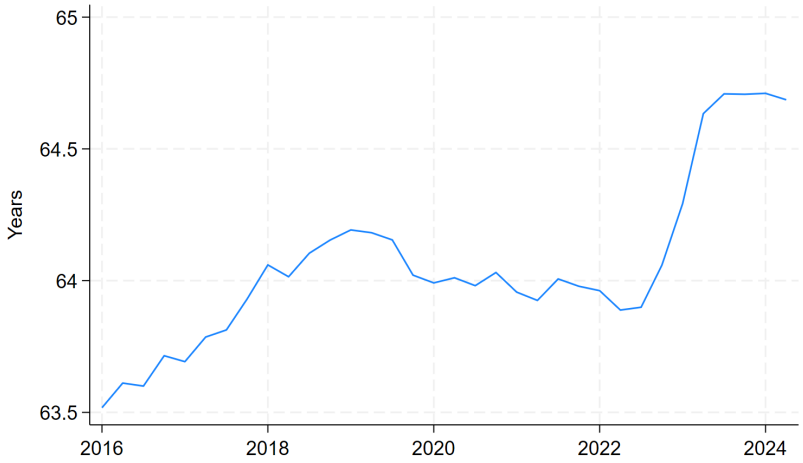
Annex A. Additional Analysis: Spain

Figure A1. Spain: Labor Force Participation by Age and Education Level



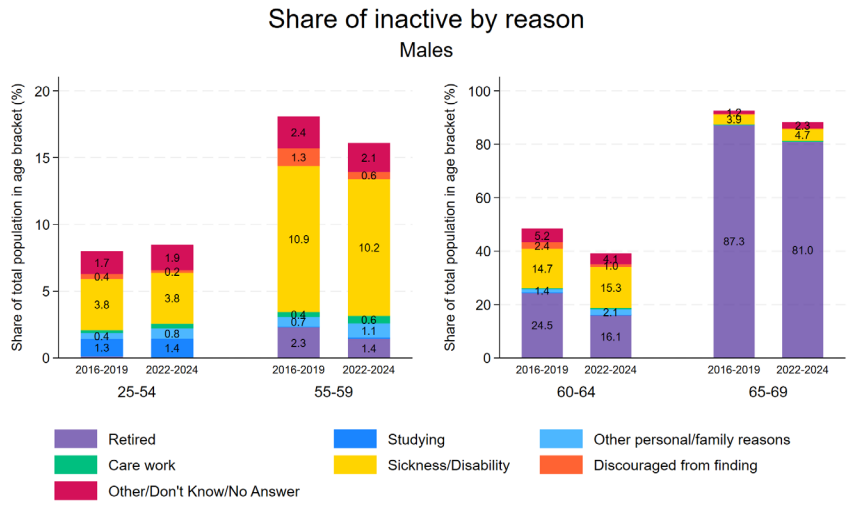
Sources: Encuesta de Población Activa and authors' calculations.
Note: the "HS or less" group includes workers whose highest educational degree is high school or below. The "University +" includes workers with any post-secondary education, including non-university professional certifications.

Figure A2. Spain: Average Retirement Age



Sources: Encuesta de Población Activa and authors' calculations.
Note: Average retirement age defined as the average age of retired workers in a given quarter who last held a job less than 3 months ago.

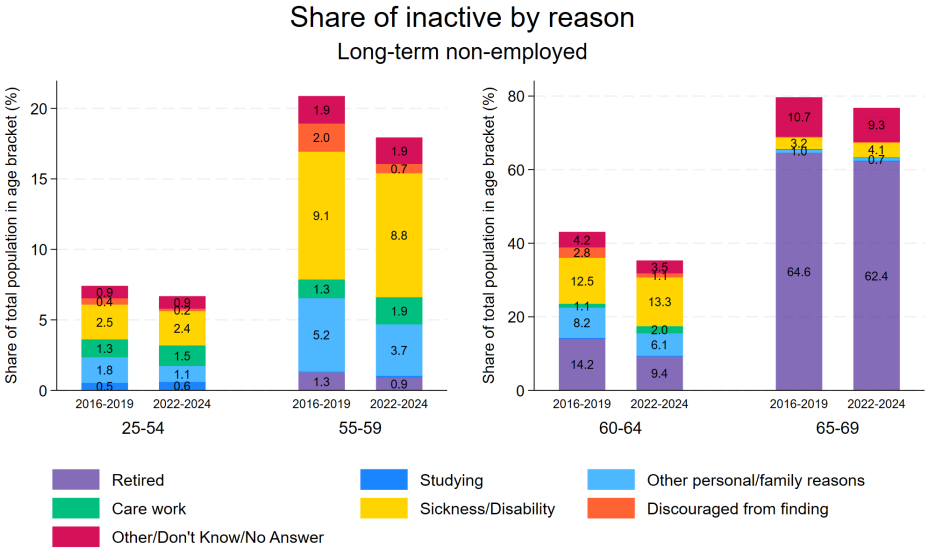
Figure A3. Spain: Reasons for inactivity, males



Sources: Encuesta de Población Activa and authors' calculations.

Note: The height of the bar corresponds to the share of inactive in the population of each age bracket, average across years. The colored ranges represent the share of workers inactive due to each respective reason for inactivity.

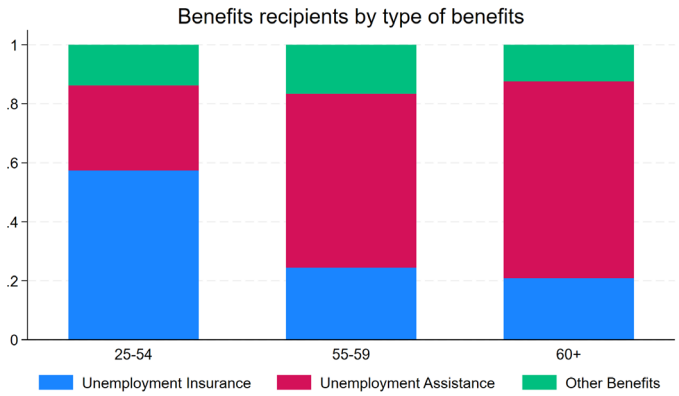
Figure A4. Spain: Reasons for inactivity, long-term non-employed



Sources: Encuesta de Población Activa and authors' calculations.

Note: The height of the bar corresponds to the share of inactive in the population of each age bracket, average across years. The colored ranges represent the share of workers inactive due to each respective reason for inactivity.

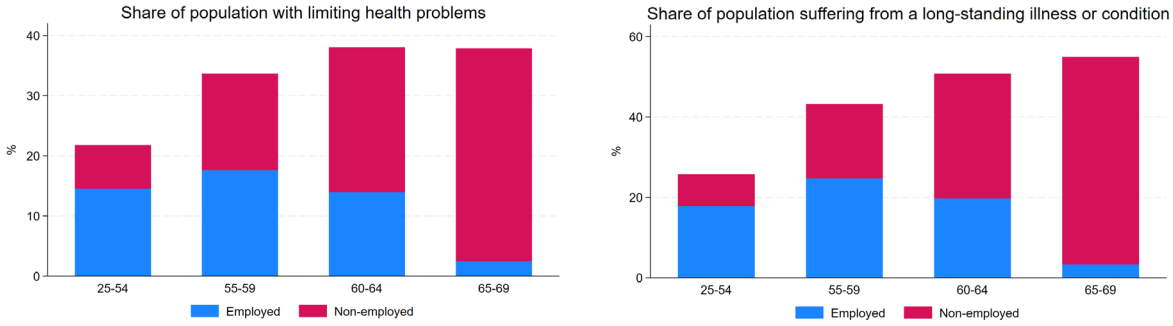
Figure A5. Spain: Benefits recipients by type of benefits



Sources: Ministerio de Trabajo y Economía Social

Note: Unemployment insurance = *prestación por desempleo*; unemployment assistance = *subsidio por desempleo*.

Figure A6. Spain: Share of population with health conditions

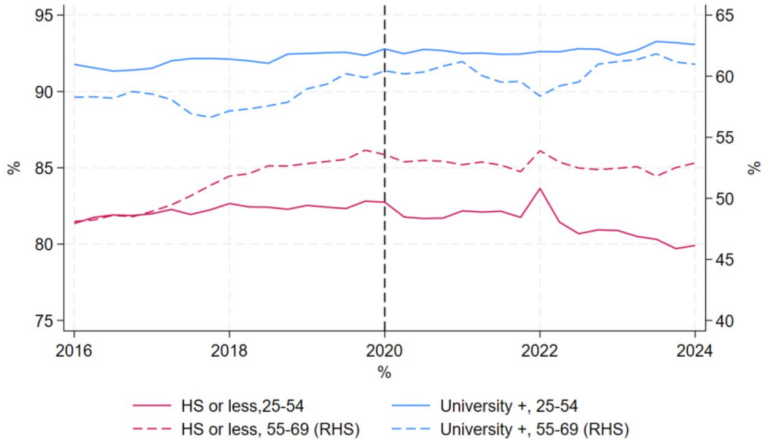


Sources: Encuesta de Condiciones de Vida and authors' calculations.

Notes: Left panel: share of the population in each age bracket that indicated to be restricted through long-standing limitation in activities that they usually perform due to health problems. These limitations can be of physical, mental or emotional nature. Right panel: share of people claiming to suffer from a chronic (long-standing) illness or condition.

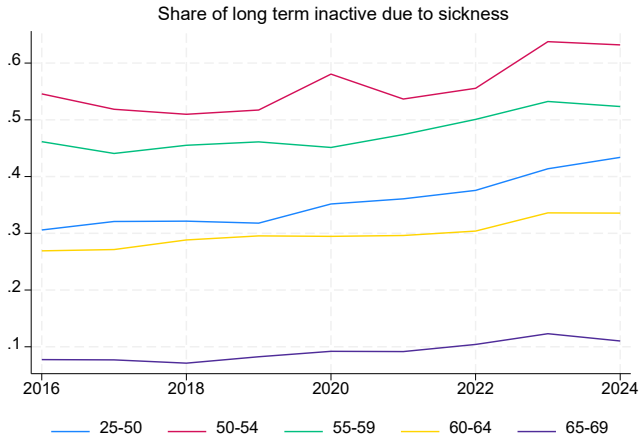
Annex B. Additional Analysis: UK

Figure B1. UK: Labor Force Participation Rate by Age and Education Level



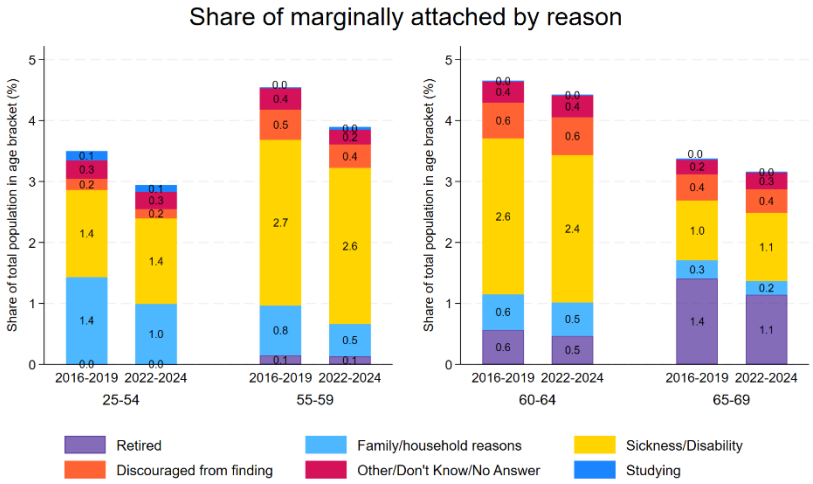
Sources: UK Labour Force Survey and authors' calculations.
Note: the "HS or less" group includes workers whose highest educational degree is high school or below. The "University +" includes workers with any post-secondary education, including non-university professional certifications.

Figure B2. UK: Share of Long-term Non-Employment Due to Sickness and Disability



Sources: UK Labour Force Survey and authors' calculations.
Note: The figure plots the share of people citing sickness and disability as the main reason for not working among the long-term inactive. The long-term inactive are defined as those who last held a job more than 12 months ago.

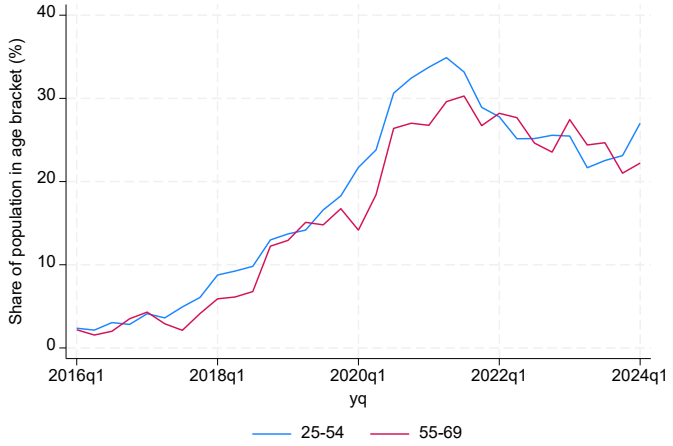
Figure B3. UK: Reasons for inactivity, marginally attached workers



Sources: UK Labour Force Survey and authors' calculations.

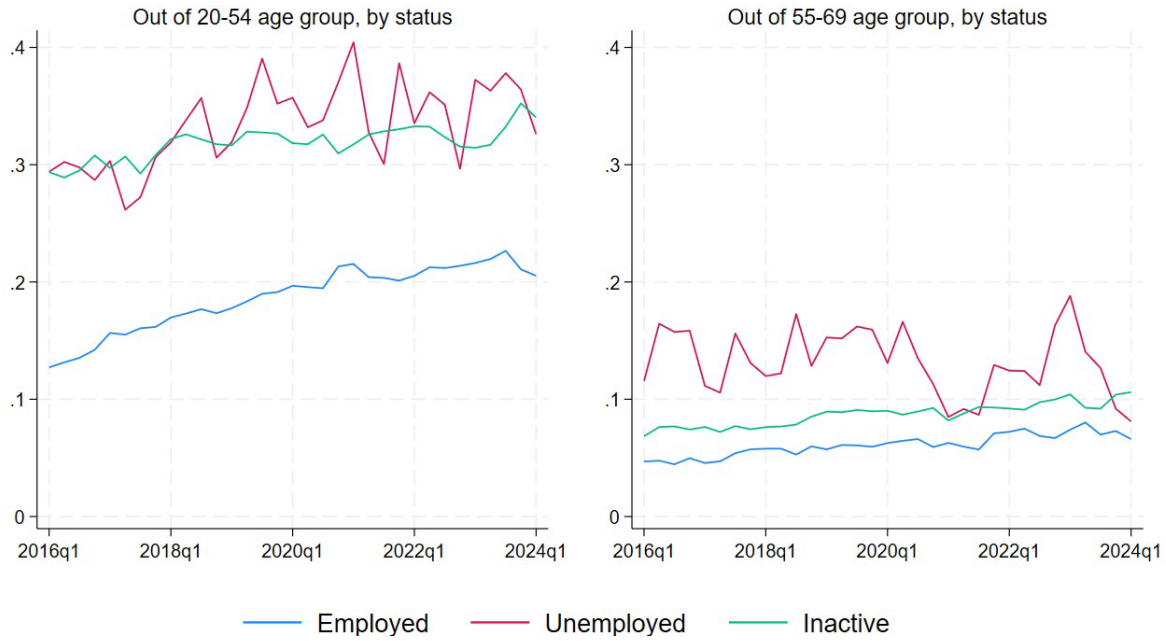
Note: Marginally attached workers are defined as those inactive workers who, despite not actively searching for a job, would be willing and able to begin a new job.

Figure B4. UK: Share of unemployed population receiving Universal Credit with the condition of looking for work



Sources: UK Labour Force Survey and authors' calculations.

Figure B5. UK: Share self-reporting mental health as the main long term health condition, by employment status



Sources: UK Labour Force Survey and authors' calculations.
Note: Self-reported expectation of long-term condition, defined as answering affirmatively to suffering from depression, bad nerves, anxiety, phobias, or panic attacks.

Annex C. The steady-state participation rate decomposition

This annex describes the steady-state approximation of the distribution of labor market states based on the transition probabilities plotted in figure 5.

The share of workers in employment (E), unemployment (U), and inactivity (I) in a given period *t* are reported in the vector x_t. The stock of workers in each labor market state at time t evolves according to:

$$\underbrace{\begin{bmatrix} E \\ U \\ I \end{bmatrix}_t}_{x_t} = \underbrace{\begin{bmatrix} p_{EE} & p_{UE} & p_{IE} \\ p_{EU} & p_{UU} & p_{IU} \\ p_{EI} & p_{UI} & p_{II} \end{bmatrix}}_{\Pi} \underbrace{\begin{bmatrix} E \\ U \\ I \end{bmatrix}_{t-1}}_{x_{t-1}}$$

Where $p_{J,L}$ is the transition probability of moving from job market state J to state L between two periods. By construction, the elements of each column of Π sum to 1. This implies that Π has 1 as eigenvalue and one of its corresponding eigenvectors, $\tilde{x}$, will be the long-run steady-state of the labor market. In fact, $\tilde{x}$ will be a 3×1 vector where each entry represents the share of each state in the population, i.e.:

$$\tilde{x} = \begin{bmatrix} \frac{\tilde{E}}{\tilde{E} + \tilde{U} + \tilde{I}} \\ \frac{\tilde{U}}{\tilde{E} + \tilde{U} + \tilde{I}} \\ \frac{\tilde{I}}{\tilde{E} + \tilde{U} + \tilde{I}} \end{bmatrix}$$

Hence, to obtain the steady-state labor force participation rate (LFPR), we obtain the eigenvector attached to eigenvalue = 1 and sum the first two rows. Since we are interested in two periods, pre-covid (2016q1-2019q4), and post-covid (2022q1-2024q2), we construct Π_{pre} and Π_{post} with the average transition probabilities in both periods using EPA labor market flows. With this, we obtain the steady-state participation rates in each period.

Since the first column in Π_i corresponds to the transition probabilities of flows from employment, we can obtain the contribution of these flows to the change in LFPR by performing a counterfactual exercise where first we substitute this column in Π_{pre} with the corresponding column in Π_{post} and subsequently obtain the steady-state LFPR implied by the new transition probabilities. Thus, in this exercise, we assume all the other flows remain equal to their pre-covid values. Summarizing the process:

1) Replace the first column in Π_{pre} with the corresponding column in Π_{post};
2) Obtain the counterfactual steady-state LFPR, $\widetilde{LFPR_E}$;
3) Obtain the contribution of flows from employment to the change in steady-state LFPR by calculating $\widetilde{LFPR_E} - \widetilde{LFPR_{pre}}$;
4) Perform the same for the second and third columns of Π_{pre}, corresponding to the contributions of unemployment and inactivity flows, respectively.

In the end, we have the following decomposition:

$$\widetilde{LFPR_{post}} - \widetilde{LFPR_{pre}} = \underbrace{\left(\widetilde{LFPR_E} - \widetilde{LFPR_{pre}}\right)}_{Flows\ out\ of\ employment} + \underbrace{\left(\widetilde{LFPR_U} - \widetilde{LFPR_{pre}}\right)}_{Flows\ out\ of\ unemployment} + \underbrace{\left(\widetilde{LFPR_I} - \widetilde{LFPR_{pre}}\right)}_{Flows\ out\ of\ inactivity} + residual$$

Annex D. Glossary

Activity: The active population comprises all persons who are counted as either employed or unemployed (i.e., not in employment but actively looking for a job). Also referred to as labor force participation.

Defined-Benefit Pension Scheme: A retirement scheme that guarantees a specific monthly benefit at retirement. The benefit is usually based on a worker's average salary over their career and total years of contribution. Contributions are generally fixed as a percentage of the worker's gross salary, sometimes with greater flexibility for the self-employed. In defined-benefit schemes the pension fund assumes most of the risk, as it manages the uncertain returns from investing the worker's contributions but faces more deterministic liabilities from the worker's pension benefits. This mismatch is particularly critical in pension schemes financed through a pay-as-you go system, whereby the contributions of current workers are predominantly used to pay the pension benefits of current retirees.

Defined-Contribution Pension Scheme: A retirement scheme whereby workers make contributions to individual accounts throughout their careers. The accounts' funds are invested and receive returns until the worker's retirement. Pension benefits are computed as annuities of the total value of the individual account at the time of retirement. In this system, the worker bears the majority of the risk, as their pension benefits are linked directly to the value of their own account, which may vary based on the returns obtained by the fund during the worker's career. Defined-contribution schemes also tend to provide workers with greater flexibility in deciding how much to contribute, or whether to contribute at all, and in some cases also choice on the risk profile of the investments made with their contributions.

Employment Rate: Defined as the ratio of the employed to the total population.

(Labor Market) Flows: the movements of people between employment, unemployment, and being outside of the labor force (i.e., inactive) across two periods of the surveys.

Inactivity: The inactive population comprises those not in work who are not actively searching for a job.

(Labor Force) Participation Rate: the ratio between the sum of people employed and unemployed (i.e., the active population) divided by the total population (i.e., active and inactive).

Old-age Dependency Ratio: The population aged 65 and above divided by the population of working age (15 to 64 years of age)

(State) Pensionable Age: Age at which most workers can start receiving benefits from state-run pension schemes without early-retirement penalties. Exceptions usually exist for those with long-enough contribution histories or who worked in specific professions.

Transition Probability: Probability that a worker transitions from one labor market state (employment, unemployment, inactivity) to a different one across two periods. It is defined as the flow across two states from period t to t+1, divided by the stock of workers in the first state at time t.

Unemployment Assistance: Unemployment support scheme of non-contributory nature, meaning that the generosity and duration of the benefits are not based on the worker's past salaries and contribution history. It usually becomes available once unemployment insurance has expired.

Unemployment Insurance: Unemployment support scheme of contributory nature, meaning that the generosity of the benefits is based on the worker's past salaries and their duration depends on the length of the worker's contributions to the scheme.

Unemployment Rate: Defined as the ratio of the unemployed to the active population.

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