

The impact of population ageing on Spanish labour market flows

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Rationale

This article shows that labour market flows – between employment and unemployment and economic inactivity, and between jobs – vary appreciably across age groups. It also explores the impact of population ageing on aggregate labour market flows in Spain.

Takeaways

- Labour market flows – between employment and unemployment and economic inactivity, and between jobs – testify to greater mobility among younger workers.
- Consequently, with all else being equal, the ageing of the employed population in Spain in recent decades appears to have been one of the factors behind the considerable reduction in aggregate flows in the Spanish labour market.
- In this setting, as population ageing will foreseeably intensify in the near future, the labour retraining processes already under way as part of firms' digital and green transitions will likely encounter difficulties.

Keywords

Employment, labour market flows, ageing.

JEL classification

J63, J11, D22.

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The Spanish population is currently undergoing an acute ageing process that is set to intensify over the coming decades.¹ As highlighted in several Banco de España reports, this process could have a very considerable impact on Spanish labour market performance, in terms of the aggregate participation and employment rates (Cuadrado, Fernández Cerezo, Montero and Rodríguez, 2023) and aggregate productivity growth (Banco de España, 2024, Chapter 2), for example.

To complement these reports, this article analyses the possible impact of the ageing of the employed population on the buoyancy of employment inflows and outflows and job-to-job transitions. The volume of labour market flows is important because, among other reasons, it can affect the reallocation of employment across occupations, firms and sectors and, as a result, aggregate productivity.² All this, against a backdrop in which the technological changes under way, in addition to the green transition, will foreseeably trigger or require an extensive reallocation of employment across sectors and occupations in the coming years (Banco de España, 2024, Chapter 3).

The analysis is conducted in three stages. First, drawing on the social security administrative labour records (MCVL, by their Spanish initials), we document how the employed population in Spain has aged in the period 2005-2022. Second, again using the MCVL, we calculate over time and for different age groups, the size of three key labour market flows: employment inflows from “non-employment” (i.e. unemployment or economic inactivity), employment outflows to “non-employment” and job-to-job transitions (from one firm to another). Third, after completing the first and second stages, we quantify the impact of population ageing on the aggregate size of the labour market flows under review. To do so, we estimate the counterfactual flows assuming that the distribution of employees by age group has remained unchanged since 2005 (i.e. that the observed ageing of the employed population has not occurred).

Chart 1 depicts the gradual ageing of the employed population in Spain over recent decades. The decrease in employment among younger workers is particularly evident, with the share of workers aged 34 and under falling from 46.3% in 2005 to 28.6% in 2022. By contrast, the share of older age groups (45-54 and 55 and over) has gradually increased throughout the period under review, rising by 18.6 percentage points (pp) since 2005, to account, overall, for 45% of employment in 2022.³

Chart 2 shows the changes in labour market flows by age group in the period 2005-2022.

- Chart 2.a depicts the annual average of the monthly employment inflow rates, calculated as the percentage of workers in a specific month that were not employed a month earlier.

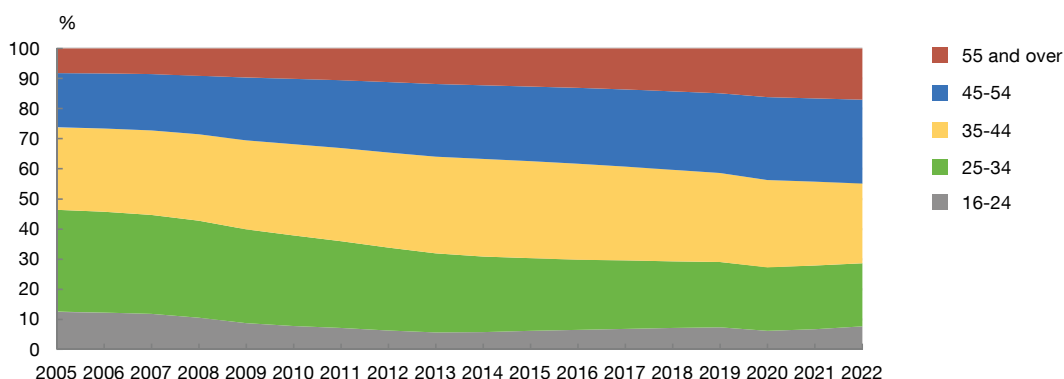
¹ For more details on the nature and scale of this process, see Banco de España (2019).

² See, for example, Hijzen, Zwysen and Lillehagen (2021) and Mussida and Zanin (2020).

³ The ageing is slightly more pronounced within the non-employed population (the unemployed and economically inactive).

Chart 1
Distribution of workers, by age group

1.a Distribution of employees



SOURCE: Banco de España, using MCVL micro data for the period 2005-2022 (Ministerio de Inclusión, Seguridad Social y Migraciones).

The most salient finding is that the younger age groups (16-24 and 25-34) are those with greater mobility from “non-employment” to employment, with substantially higher inflow rates than the older age groups throughout the period. With regard to the change in these flows over time, since the financial crisis the buoyancy of employment inflows of the under-35s has increased slightly, while for older workers it has held relatively stable.⁴

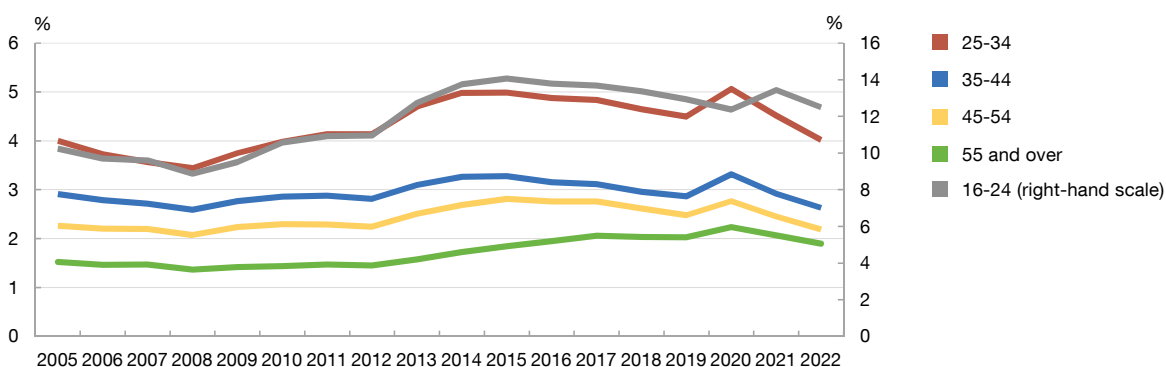
- Chart 2.b shows the annual average of the monthly employment outflow rates, calculated as the percentage of workers in a specific month that were not employed a month later. As in the case of inflows, the younger age groups have higher outflow rates than the older age groups. With regard to the change over time, outflow rates increased for all groups during the financial crisis, although such increase reversed partially after 2012, especially for the older age groups. Nevertheless, in 2022 the outflow rates of the younger age groups were slightly higher than those of 2005, while those of the older age groups stood at a similar level.
- Chart 2.c depicts the change in the annual average of the monthly rates of job-to-job transitions. This flow is calculated as the proportion of workers changing jobs between firms from one month to the next. The above-mentioned inflow and outflow differences across age groups are also observed in job-to-job transitions. Specifically, the greater mobility of younger workers, which gradually declines as workers get older, should be noted. With regard to the change over time, these flows have a large cyclical component across all age groups. Longer term, when comparing 2005 with 2022 there is a slight increase in these rates for younger workers, while for older workers job-to-job transitions stood at practically the same levels in 2022 as in 2005.

4 Note that the labour market flows analysed in this article have been considerably volatile in the most recent period (2020-2022), largely as a result of the severe disruptions the COVID-19 pandemic caused to the labour market and overall economic activity. However, a large part of these disruptions have proven to be essentially temporary, such that this article does not analyse in depth the most recent fluctuations in the estimated labour market flows.

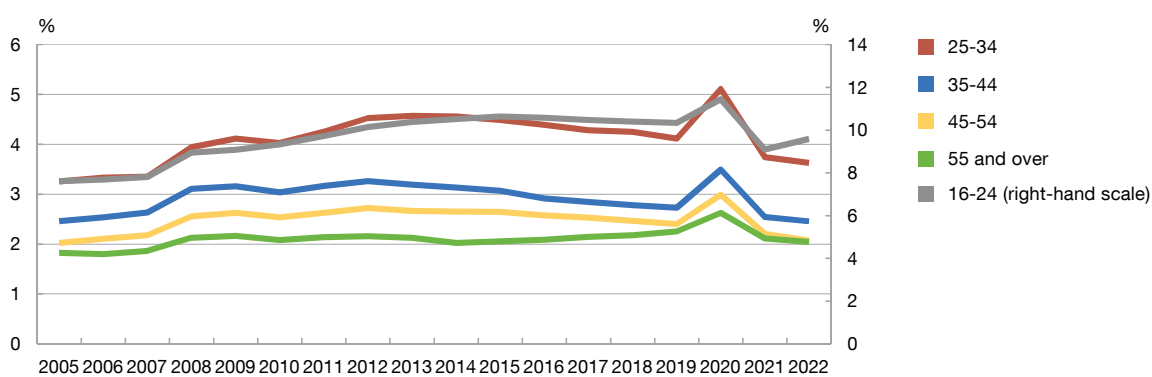
Chart 2

Distribution of labour market flows, by age group

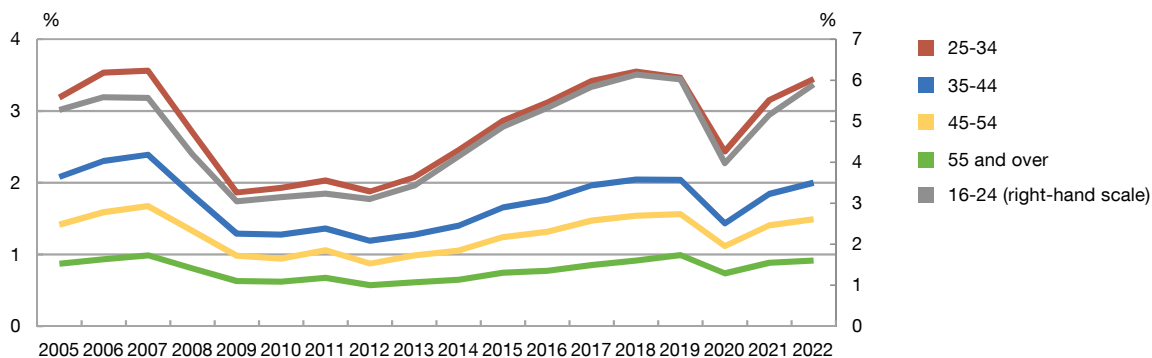
2.a Employment inflow rate (a)



2.b Employment outflow rate (a)



2.c Job-to-job transition rate (a)



SOURCE: Banco de España, using MCVL micro data for the period 2005-2022 (Ministerio de Inclusión, Seguridad Social y Migraciones).

a The charts show the annual average of the monthly rates. The employment outflow rate is calculated as the total number of workers that are in employment in month $t-1$ and that in month t are not, as a percentage of the total workers employed in month $t-1$. The employment inflow rate is calculated as the number of individuals who are employed in month t without having been employed in month $t-1$, as a percentage of the total number of persons employed in month $t-1$. The job-to-job transition rate is calculated as the workers that changed jobs between months $t-1$ and t , as a percentage of the total number of persons employed in month $t-1$.

In sum, two key conclusions can be drawn from Chart 2. First, labour market flows – in terms of both employment inflows and outflows and job-to-job transitions – are stronger for younger workers, suggesting greater labour mobility within this group. Second, aside from the cyclical movements and the disruptions induced by the COVID-19 pandemic, it is hard to distil long-term trends from the labour market flows assessed in this article, with two possible exceptions: i) in the younger age groups there is a slight increase in employment inflows, employment outflows and job-to-job transitions in recent years; and ii) for the over-55s, there is a slight increase in employment inflows, which rose from 1.5% in 2005 to 1.9% in 2022.

To analyse the extent to which the aforementioned demographic changes might impact aggregate labour market flows, next we perform a counterfactual exercise that estimates these flows had the age distribution of employment remained unchanged since 2005. Specifically, we consider the three flows observed (inflows, outflows and job-to-job transitions) by age group for each month and estimate a counterfactual aggregate, which consists of weighting the flow of an age group using the age distribution in 2005. This is therefore a *ceteris paribus* exercise, as it does not take into account the general equilibrium effects that a different demographic distribution would have had on the labour market flows in the period under review. Chart 3 shows the results of this exercise:

- Chart 3.a shows the actual (solid line) and counterfactual (broken line) aggregate employment inflow rates. The actual rate has held at around 3.5-4% throughout the period 2005-2022. The counterfactual inflow rate, meanwhile, gradually pulls away from the actual rate, increasingly exceeding the actual rate throughout the period. Thus, it is estimated that in 2022 the aggregate inflow rate would have been 0.8 pp higher had the employed population not aged.⁵
- Chart 3.b depicts the actual and counterfactual aggregate employment outflow rates. The former holds at values close to 3.2-3.8% in the period under review. As with the inflows, the counterfactual outflow rate is higher than the actual rate in the period under review (0.6 pp higher in 2022), indicating that ageing has contributed considerably to reducing these labour markets flows in recent decades.⁶
- Chart 3.c shows the actual and counterfactual aggregate job-to-job transitions. As in Chart 2.c, the actual aggregate for these transitions is highly procyclical; in 2022 the job-to-job transition rate was 2.3%, a level similar to that recorded in the pre-pandemic upturn. Once again, comparing the actual and counterfactual time series suggests that the rate of job-to-job transitions would have been higher (by 0.5 pp in 2022) had the employed population not aged.⁷

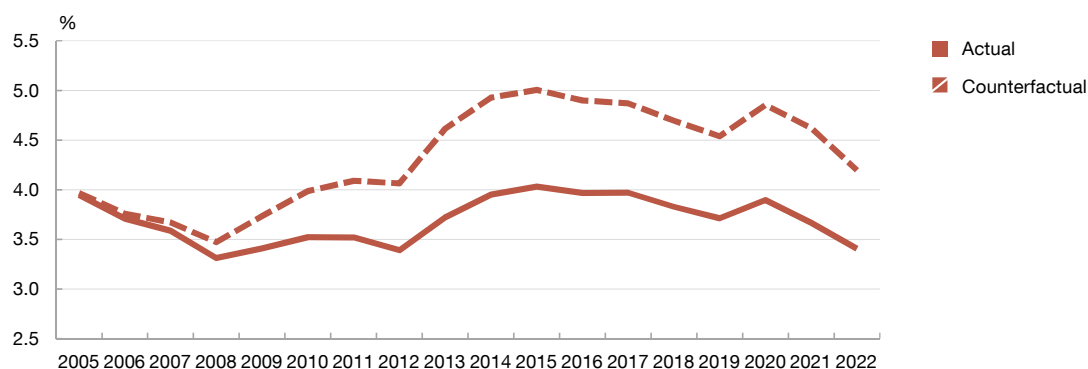
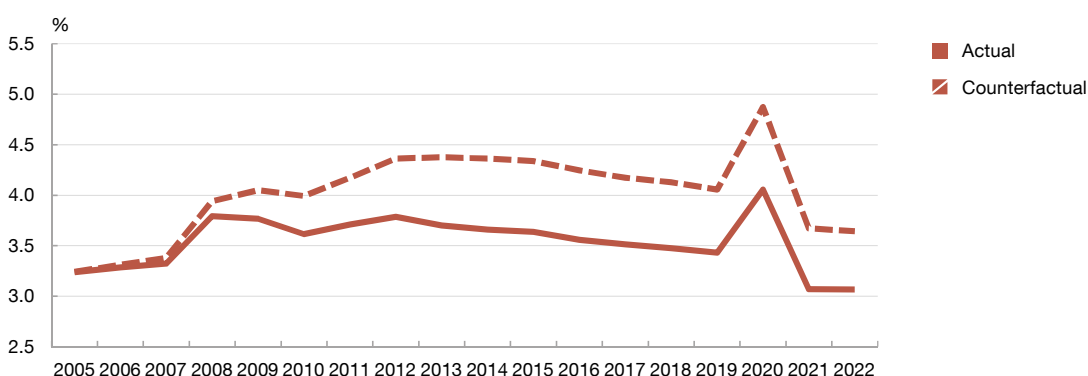
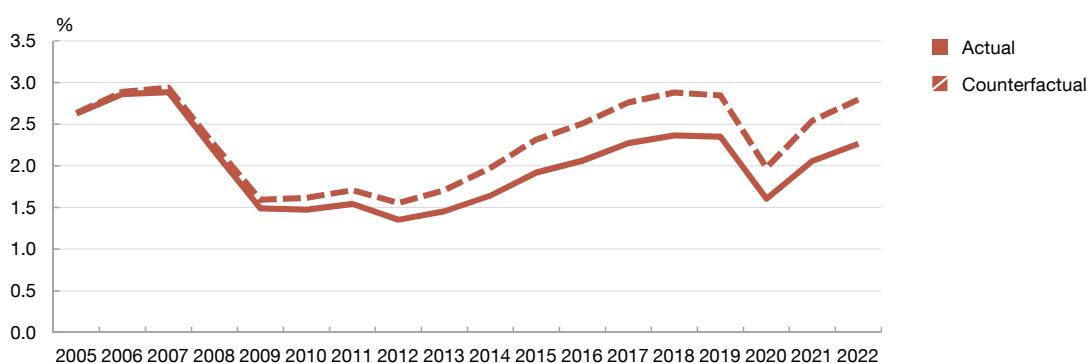
Therefore, according to the findings presented in this article, in recent decades population ageing in Spain has contributed considerably to reducing employment inflow and outflow and job-to-job

5 This 0.8 pp difference amounts, on average, to an employment inflow of approximately 122,670 persons per month.

6 This 0.6 pp difference amounts, on average, to an employment outflow of approximately 89,590 persons per month.

7 This 0.5 pp difference amounts, on average, to approximately 82,102 job-to-job transitions per month.

Chart 3

Total labour market transitions (actual and counterfactual)**3.a Employment inflow rate (a)****3.b Employment outflow rate (a)****3.c Job-to-job transition rate**

SOURCE: Banco de España, using MCVL micro data for the period 2005-2022 (Ministerio de Inclusión, Seguridad Social y Migraciones)

a The charts show the annual average of the monthly rates. The employment outflow rate is calculated as the total number of workers that are in employment in month $t-1$ and that in month t are not, as a percentage of the total workers employed in month $t-1$. The employment inflow rate is calculated as the number of individuals who are employed in month t without having been employed in month $t-1$, as a percentage of the total number of persons employed in month $t-1$. The job-to-job transition rate is calculated as the workers that changed jobs between months $t-1$ and t , as a percentage of the total number of persons employed in month $t-1$. The counterfactual rates are calculated using the distribution of workers by age group in 2005.

transition rates. It must be borne in mind that more buoyant labour market flows may indicate greater labour turnover due to temporary contracts, which mainly affect young workers. Although this article does not address this topic, if we analyse labour market flows by age group in economic sectors grouped by temporary employment ratio,⁸ we see a similar pattern to that observed for the aggregate flows. For younger workers, we observe the same pattern of more dynamic flows irrespective of the temporary employment ratio in the sector.⁹ The same pattern is also seen in voluntary job-to-job transitions, which in principle should not be affected by the temporary employment ratio. This suggests that, although the higher turnover among young workers could partly reflect factors such as a higher temporary employment ratio in the period under review, labour market flows are still more dynamic among young adults even when this factor is taken into account.

Looking ahead to the coming decades, according to all the projections available¹⁰ the ageing of the employed population in Spain will intensify. This will foreseeably contribute to slowing the momentum of Spanish labour market flows further still. Although there is a very high level of uncertainty, this projected ageing could, in the absence of corrective measures (both on the demographic front and in terms of labour market and training policies (Banco de España, 2024)), hinder the occupational and sectoral reallocation of workers required for the digital and green transitions and for productivity growth.

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8 Specifically, the sectors were divided into four groups with approximately the same number of workers, based on their temporary employment ratio in 2018. The low temporary employment ratio group comprises sectors with a ratio of up to 22%, the medium-low ratio group consists of sectors whose ratio ranges from 22% to 28%, the medium-high group's ratio ranges from 28% to 50% and, lastly, the high temporary employment ratio group consists of sectors with ratios of over 50%.

9 Except for employment outflows in the sectors with a low and medium-low temporary employment ratio, where all the over-35 age groups have similar outflow rates throughout the period under review.

10 See, for example, European Commission (2024) and the National Statistics Institute's population projections (<https://www.ine.es/dyngs/Prensa/en/PROP20242074.htm>).

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