

Intragenerational Income Mobility in France Over the 2003-2021 Period

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Abstract – In this article, we measure the mobility of individuals within the income distribution using a new panel of fiscal data covering the 2003-2021 period. The rank on the 2021 income scale of individuals aged between 25 and 49 in 2003 correlates strongly to their rank in 2003 (rank-rank correlation: 0.68). This persistence is particularly strong among the wealthiest 20% and poorest 20% from 2003, with nearly two thirds remaining in the same income quintile 18 years later. Intragenerational income mobility appears to be considerably lower in France than in the United States and remains stable in each sub-period. It is higher for the youngest, for the self-employed and for inhabitants of the largest urban areas. This high level of persistence is reflected in the levels of inequality that are only a little (7%) lower when measured over 19 years than over one year.

JEL: D31, J60, J61, H0, R1.

Keywords: intragenerational income mobility, inequality, rank-rank correlation, fiscal data, spatial variations

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Over time, an individual may occupy various positions within the income distribution. Studying income mobility is important as it allows us to quantify the extent of the opportunities for upward mobility and income dynamics over the life cycle or, conversely, the persistence that may exist at certain points on the distribution.

A complete lack of mobility or very low mobility across the income scale may be a sign of poor opportunities for progression during working life, which carries the risk that potential talent is prevented from developing. The lack of mobility over the life cycle may therefore weaken economic growth (OCDE, 2018). Mobility is therefore frequently an objective of economic policy. Furthermore, the diagnosis of inequalities may differ when those inequalities are measured in cross section, as is usually the case, or if income mobility over the course of a lifetime is taken into account. For example, in 2012, Krueger, then the chairman President Obama's Council of Economic Advisors to, stated that *"Higher income inequality would be less of a concern if low-income earners became high-income earners at some point in their career"*. However, until now, little empirical evidence has been available on income mobility over periods larger than 5 or 10 years.

What is the degree of income mobility over a lifetime? What are the differences by region, sex, activity status or even age? Over the long term, to what extent does mobility reduce income inequalities between individuals? This study aims to answer these questions by analysing income dynamics between 2003 and 2021. It is based on original longitudinal fiscal data developed using income tax returns and made available by the DGFIP to describe individual mobility within the income scale¹ (before redistribution, but including replacement income) as well as inequalities, taking into account individual incomes over a long period. For the purposes of this study, this database has been complemented by a project conducted in collaboration with the DGFIP in order to first look back as far as 2002 (rather than 2006, the data initially available) and secondly to assess income at an individual level rather than at tax household level. For the first time, these data make it possible to track total income over a 19-year period (2003-2021) and across the entire population submitting tax returns (even where such income is zero). We use various mobility indicators, such as transition matrices and rank-rank correlation, which are measured

over the period from 2003 to 2021. These indicators are also calculated at varying intervals ranging from 1 year to 18 years. We control the effects of age by measuring mobility using the within-cohort income distribution, and analyse whether mobility is different from one period to another. Lastly, we examine the link between the measure of cross-sectional inequalities in a given year and mobility by developing the Shorrocks index. The various indicators calculated allow us to measure mobility from different angles and to establish a complete diagnosis of income mobility in France, as the different indicators can have led to draw different conclusions in the past (Buchinsky *et al.*, 2003).

Using this data, we show that there is low intragenerational income mobility (individual mobility within the income distribution) over the life cycle. The correlation between the rank within the income distribution in 2003 and the rank within the income distribution in 2021 is 0.68. Among the wealthiest 20% in 2003, 65% remain among the wealthiest 20% in 2021. These indicators are also significantly higher (and therefore mobility is lower) if we consider a shorter period. These results remain robust irrespective of the type of income considered (individual or tax household) and the ranking method. Our results are similar to those of Kramarz *et al.* (2022) and Aghion *et al.* (2023) over 5- and 10-year periods. In order to be able to compare our results against those obtained for the United States over almost two decades by Auten *et al.* (2013a), we use the same indicator, coverage and definition of income (35-40-year-olds and tax household income divided by the number of consumption units). The inertia (persistence) measured in this way is higher in France and the probability of transition from Q1 (bottom 20%) to Q5 (top 20%) is lower than in the United States.²

Then, we show that intragenerational mobility along the income scale over 19 years is higher for those aged between 25 and 29 (rank-rank correlation, RRC: 0.57) than for those aged between 35 and 39 (RRC: 0.69), which is itself higher than for those aged between 45 and 49 (RRC: 0.78). It is also higher for self-employed people than for employees with a RRC of 0.52 and 0.70, respectively. Conversely, it varies little

1. We are looking here at intragenerational mobility, which is different from intergenerational mobility, which compares the position of a person to that of their parents (for an analysis of intergenerational mobility, see for example Sicsic (2023)).

2. 5%, compared with 3% in France for very upward mobility, and 48% in the United States compared with 59% in France (with the same coverage) for remaining among the wealthiest 20%.

between women (RRC: 0.67) and men (RRC: 0.69), although men are more likely to remain at the top of the distribution and less likely to remain at the bottom. Inertia is furthermore slightly lower for individuals who report a legal union or have separated. From a geographical perspective, the inhabitants of the largest urban areas (with more than 700,000 inhabitants and the Paris area) are more likely to remain at the top of the distribution and experience more Q1Q5 mobility. And unsurprisingly, geographic mobility often goes hand in hand with income mobility (although no causal link has been established between the two).

Lastly, by calculating the Shorrocks index, we show that the high level of inertia in the income scale is reflected in a modest reduction in inequalities between individuals over the period. Measuring inequalities in terms of permanent income (over 19 years) rather than based on the cross-sectional income for one year only leads to a reduction of 7% in the measure of income inequality, and therefore has little effect on the extent thereof.

Our study forms part of a vast body of international literature that has, in particular, been extensively reviewed by Jäntti & Jenkins (2015). To study income mobility, several types of data can be used. The first key source, fiscal data, allows us to study income before redistribution. In the United States, Auten & Gee (2009) and then Auten *et al.* (2013a) examine the mobility of individuals aged between 35 and 40 over 10 years (for the former) and 20 years (for the latter). In France, Aghion *et al.* (2023) also use fiscal data to measure inequality and income dynamics over periods of 5-year intervals between 2006 and 2017. They find low mobility, which is heterogeneous across regions, qualification level, profession and starting income composition. Our main contribution to these studies is to provide, for the first time, a measure of income mobility (before redistribution) in France over the long term (almost 20 years). By extension, our study is also the first to use these data to examine the extent to which mobility increases if we measure it over a longer period, how it changes over the recent period (up to 2021), and to establish the link between income mobility and income inequality in the long term.

Another series of studies looks at individual mobility in terms of wages based on administrative data. A reference article on earned income mobility, written by Kopczuk *et al.* (2010), measures mobility over a very long period, from 1951 to 2004, but only in the “commerce and

industry” sector. They note stable short-term mobility from the end of World War II, but an increase in long-term mobility driven by the fall in income inequality between men and women. In France, Buchinsky *et al.* (2003) use a panel of employees, the *Déclarations annuelles de données sociales* (annual social data declarations – DADS), to measure various wage mobility indicators and show that the results of the change in mobility over time are different depending on the type of indicator used. The DADS have also been used in older papers to analyse individual wage dynamics over 10 or 15 years (see, in particular, Lollivier & Payen, 1990 and Bayet & Colin, 1998). Kramarz *et al.* (2022) use the same panel of employees over a more recent period, from 1991 to 2016, and find that wage mobility is stable over 10-year periods, very low at the distribution peak, with dispersion between towns and between rural and urban areas. This work forms part of an international GRID (Global Repository of Income Dynamics) project to measure inequality and income dynamics (Güvenen *et al.*, 2022). Our main contribution to these studies is to quantify mobility within the income scale by taking into account unearned income and across a broader population (which includes self-employed people, unemployed people and retirees, in particular).

A third category of studies is based on survey data, which are therefore not exhaustive, and calculates mobility indicators based on income after redistribution and over shorter periods than we are using here. In the United States, Hungerford (2011), for example, provides measures of income mobility after redistribution over 10-year periods in the 1970s and 1980s. The paper finds, for example, that 40% of the top income decile remain among the top decile 10 years later. Buchinsky & Hunt (1999) also examine wage mobility over the 1979-1991 period, across a young population (between 14 and 24 in 1979) and find that wage inequality is between 12 and 26% lower when measured over a long period than when taken as a cross section. Bradbury (2011) measures a RRC in the United States of between 60% and 65% over 10 years depending on the period (between 1970 and 2005), elasticities and the Shorrocks index, based on income after redistribution. In France, the studies on income dynamics produced using surveys are based on standards of living: Jauneau & Raynaud (2009) and Accardo (2016) use SILC (Statistics on Income and Living Conditions) data to measure mobility over five years. The OECD report published in

2018 on mobility uses EU-SILC data and shows that France would be ranked in the middle for short-term mobility (four to nine years) compared to other countries.

The remainder of the article is structured as follows. The first part describes the data. The second part describes the methods used. The third part presents the results, robustness checks and analyses of the heterogeneity of mobility based on different factors. A discussion of the results concludes at the end of the article.

1. Data, Processes and Coverage

1.1. Data

The data are taken from income declarations (forms 2042 and 2042 *complémentaire*) for income received for the years from 2003 to 2021, reprocessed by the DGFIP and called “POTE files” (*fichier Permanent des Occurrences de Traitement des Émissions* – permanent file for occurrences of processing of issues). Different versions of the POTE file (known as “issues”) are produced by the DGFIP each year based on tax returns: the issues used here are the fourth issue up until 2004 inclusive, the fifth issue in 2005 and the sixth from 2006 onwards.

An anonymised panel of tax households was developed by the DGFIP and made available via the CASD (Secure Data Access Centre) for the years 2006-2019. For the purposes of this article, we worked with the DGFIP to extend the panel to cover the period from 2003 to 2021 and to develop pre-redistribution income aggregates that are consistent over time. The ways in which these data were processed are detailed in Online Appendix S1 (see link to the Online Appendix at the end of the article).

1.2. Coverage

The study covers individuals residing in France (excluding Mayotte), aged between 25 and 49 in 2003 (therefore between 43 and 67 in 2021) and present in 2003 and 2021, totalling 19 million individuals. Attrition is relatively low (representing 10% of the population of 25-49-year-olds from 2003), is mainly due to deaths and expatriation abroad, and has limited effects on the structure of the population.³

Specific analyses are also performed based on age groups in 2003 that correspond to certain stages of professional life: start of career (25-29 years old), stability on the labour market (35-39 years old), transition to retirement (45-49 years old).

1.3. Definition of Income Variables

The income data were developed based on tax returns using the definitions used in the INSEE *enquête Revenus fiscaux et sociaux* (ERFS) for the period 2003-2021. For example, allowances are not deducted from income, in order to obtain a concept of economic income.⁴ These incomes were calculated so as to provide an outline that is both independent of the fiscal reforms and consistent over time. The two aggregates developed are as follows:

A) Income declared individually:

- wages and replacement income such as unemployment benefits and early retirement pensions,
- pensions: including disability pensions (variable available since 2014) and alimony received,
- farm income,
- industrial and commercial income,
- non-commercial income.

B) Income declared at tax household level:

- investment income (excluding exempt revenues),
- property income,
- incidental income.

Income reported in income tax returns is net of social security contributions and deductible CSG (universal social security contribution).

The primary analysis is conducted using income declared individually, i.e. individual earned and replacement income (see above). This relates to market income, i.e. before redistribution. Furthermore, this income does not take into account the income of the declarant's spouse and is therefore not directly affected by any establishment of a legal union or separation, which affects tax household income.

Robustness checks also use all tax household income: the individual income of a spouse, if applicable, is added, along with any

3. In 2003, the average age of the individuals also present in 2021 is similar (37 years old) to that of the individuals no longer present (39 years old). The individuals present on both dates are more likely to be married, more likely to be employees (78%, compared with 63% of those no longer present in 2021), less likely to be self-employed (5%, compared with 7%), and less likely to have no income (10%, compared with 20%). The average income in 2003 is €17,300 for those present on both dates, which is higher than that for those no longer present in 2021 (€14,800). The difference is in part due to the fact that the proportion of individuals with no income is twice as high for those not present in 2021.

4. However, for self-employed people, some allowances are deducted, as they correspond directly to expenditure required for their professional activity (for example, purchases of tractors for farmers).

(non-individualisable) investment and property income, and incidental income. This income is divided by the number of taxpayers in the tax household (one or two).⁵

In the analyses of the mobility indicators, this income is defined for two dates: at the start (2003) and end of the period (2021).⁶ In the robustness checks (section 3.1.3), we calculate mean income over two years (2003-2004 and 2020-2021) so as to be able to ignore any instances of very temporary income mobility. To calculate the Shorrocks index, the study is limited to individuals who have reported non negative income each year over the entire 2003-2021 period (see below).

1.4. Ranking Method and Age Effects

For each date, the individuals are then ordered by their income and ranked into income percentiles, deciles or quintiles. In order to control age effects (people of different ages are not at the same stage of their careers and therefore have different incomes), we rank each individual among the individuals born the same year (by creating “intragenerational quantiles”), which enables us to measure how a person’s position within the income scale develops over their lifetime compared to people (from the same generation) facing similar economic conditions.⁷ Our measures of mobility are therefore not affected by comparing the relative positions of individuals of very different ages, in line with previous approaches in the literature on this subject: Guvenen *et al.* (2021) strip away the logarithm of income for an age effect, Pora & Wilner (2020) control the effects related to age, the cohort and period using an APC (Age-Period-Cohort) model, and Aghion *et al.* (2023) rank the individuals by age and use the approach proposed by Guvenen *et al.* (2021).

In a robustness check, we rank the individuals within the income distribution of the entire population, i.e. those aged 25 to 49 in 2003 (see section 3.1.3). Specific analyses are also performed on five-year age ranges (25-29, 35-39 and 45-49 in 2003) in section 3.1.4. This last analysis, which compares individuals to their counterparts in the same cohort, also allows us to ignore life cycle effects (Auten *et al.*, 2013a, 2013b).

The development of the other variables used in the analysis is detailed in Online Appendix S1.

1.5. Description of Income

In 2003, individual income is zero for the first few percentiles of the distribution (Figure I-A)

and rises to €138,800, on average, in the top 1%. Tax household income per declarant, which includes capital income, is higher and less likely to be zero (Figure I-B).

Across the panel studied, the inequalities in income declared (individually and at tax household level, see section 1.3) increase between 2003 and 2021. The wealthiest 1% and 10% account for 6.4% and 28.2% of income, respectively, at the start of the period, compared with 8.0% and 30.7%, respectively, at the end of the period. The Gini index is 0.402 in 2003 and 0.406 in 2021.

2. Methodology

We use two income mobility indicators.

2.1. Rank-rank Correlation

The rank-rank correlation (RRC), which measures the correlation between ranks at the start and end of the period, can be estimated using equation (1), where $R_{i,p}$ is the rank of individual i for the period p :

$$R_{i,2} = \alpha + \beta R_{i,1} + \varepsilon_i. \quad (1)$$

The regression coefficient β corresponds to the RRC (the ranks follow a uniform law at the start and end of the period): $\beta = \text{Corr}(R_{i,1}, R_{i,2})$. And the R^2 of equation (1) allows us to determine the proportion of the variability in the ranks in 2021 that is explained by the variability in the ranks in 2003.

2.2. Transition Matrices

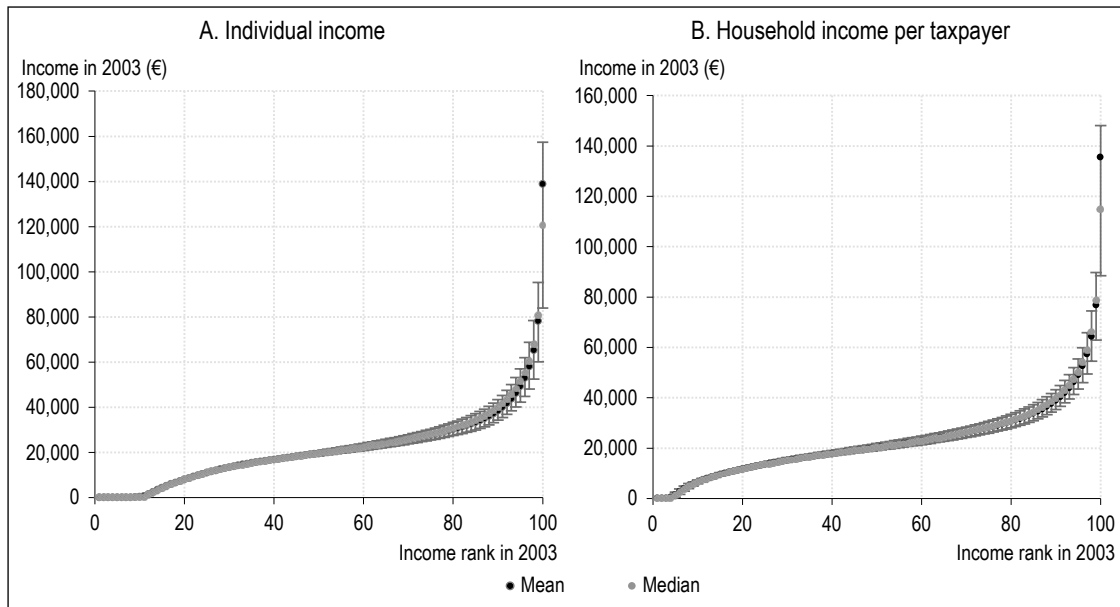
A second way of examining income mobility is to measure the probabilities of moving from one rank to another between two periods, with 5, 10 or 100 income levels. Based on these transition probabilities, it is possible to define indicators of inertia or mobility. To examine the inertia, we look at the probability that an individual belonging to the lowest (or highest) quintile of the income distribution at the start of the period will remain in the lowest (or highest) quintile at the end of the period: Q1Q1 (or Q5Q5). In terms of mobility, we study the probability that an individual in the lowest

5. It is divided by the number of taxpayers in the household and not the number of consumption units so as to give a measure of individual mobility independent of changes in household size.

6. The income may be negative (in particular in the case of a deficit). These individuals (largely a minority group: 0.2% of 25-49-year-olds in 2003) are therefore excluded from the panel.

7. Some articles refer to intragenerational income mobility. In this article, we will mainly use the term income mobility, but the concept is the same as intragenerational income mobility (or rank mobility) used in some publications.

Figure I – Income in 2003 versus rank in the distribution in 2003



Notes: Constant euro in 2021. The intervals represent the gap between the first and third quartiles.

Reading note: The individuals in the 25th income percentile in 2003 have, in 2003, a mean income of 10,900 euro and a median income of 11,000 euro. The first quartile of their income in 2003 is 10,700 euro and the third quartile is 11,200 euro.

Coverage: France excluding Mayotte, individuals present in the POTE data in 2003 and 2021 and aged between 25 and 49 in 2003.

Sources: INSEE-DGFiP, panelised POTE 2003-2021, authors' calculations.

(or highest) quintile at the start of the period will be in the highest (or lowest) quintile at the end of the period: Q1Q5 (or Q5Q1). These probabilities are conditional on the individual being in the lowest or highest quintile at the start of the period.

Lastly, we also define “upward mobility” as rising by two tenths or more (unconditionally) between the start and end of the period, and “downward mobility” as falling by two tenths or more.

3. Results

3.1. Mobility Indicators

3.1.1. Rank-rank Correlation

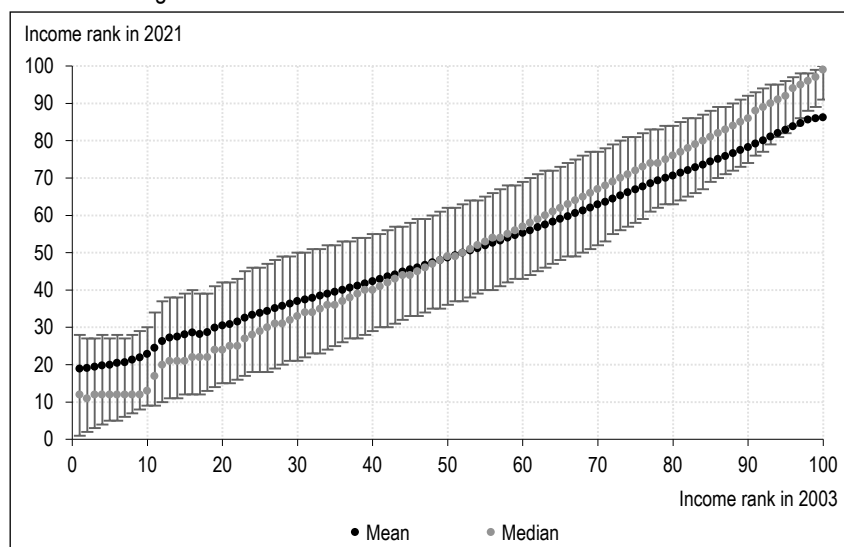
An individual’s income determines, to a large extent, the income they will receive almost two decades later: the higher an individual is positioned in 2003, the greater their chances of having a high rank as well in 2021 (Figure II). The mean rank of individuals rises almost linearly with respect to their rank 18 years earlier. The gap in mean rank between two individuals in the extreme percentiles of the distribution in 2003 is around seven deciles in 2021. This gap is even greater when we consider the median rank (nine deciles). The mean rank in 2021 of individuals in the top 1% in 2003 is 86, compared with 34 for individuals in the first quarter of the distribution in 2003.

The inertia of individuals in the distribution is also reflected in a weak dispersion of the ranks in 2021 within each percentile in 2003 (Figure II). For example, among individuals in the middle of the income distribution in 2003, half are ranked between the 36th and 62nd percentiles in 2021, i.e. a gap of less than three deciles. At the top of the distribution, the dispersion in 2021 is even weaker: among individuals in the 90th percentile in 2003, half are ranked between the 74th and 92nd percentiles in 2021 (i.e. a gap of less than two deciles). Intragenerational mobility is, however, possible within this percentile: one in ten fell into the lower half of the income distribution in 2021. At the bottom of the distribution, in the 10th percentile in 2003, one in ten rose into the upper half of the income distribution in 2021. These high-mobility situations at the extremes of the distribution cause the median rank in 2021, seen as a function of the rank in 2003, to be steeper than the mean for these ranks.⁸

Figure S3-I-A in Online Appendix S3 represents income in 2021 in euro, and not in terms of rank. We see that the income distribution in 2021 is narrower at the bottom than at the top of the distribution. The increase in income between 2003 and 2021 is however relatively

8. Except at the very bottom of the distribution, where the mean is increasing as it is driven by individuals who remain with no income in 2003 and 2021 (and the rank of these individuals has been set to the same in 2003 and 2021).

Figure II – Income rank of individuals in 2021 versus 2003



Notes: The intervals represent the gap between the first and third quartiles.

Reading note: The individuals in the 25th income percentile in 2003 have, in 2021, a mean rank of 34 and a median rank of 29. The first quartile of their rank in 2021 is 18 and the third quartile is 46.

Coverage: France excluding Mayotte, individuals present in the POTE data in 2003 and 2021, aged between 25 and 49 in 2003 and declaring income in the year under review.

Sources: INSEE-DGFIP, panellised POTE 2003-2021, authors' calculations.

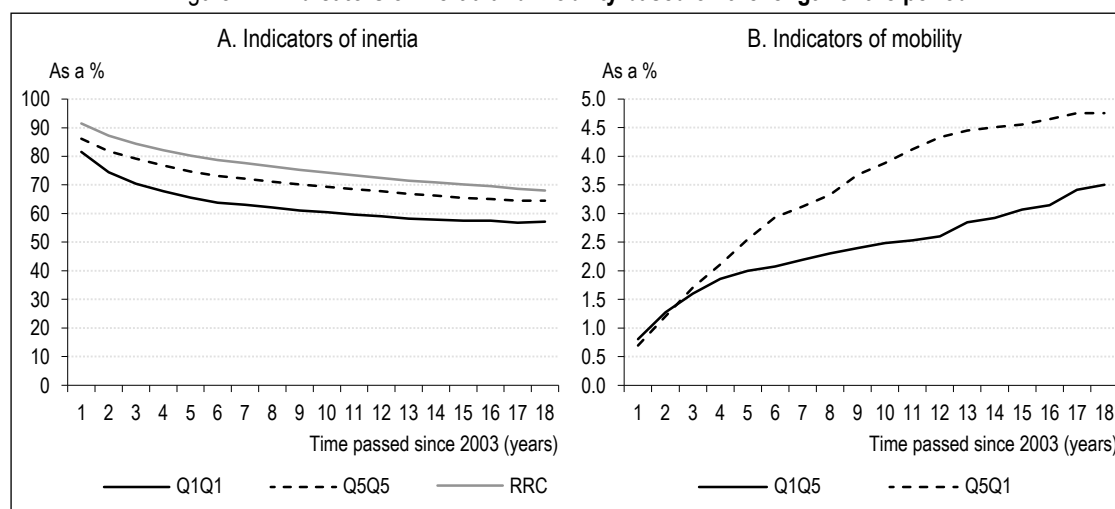
homogeneous from one percentile to another: it is, on average, between 1.4 and 1.7% in real terms for individuals beyond the 30th percentile, but is systematically greater for the poorest (see Figure S3-I-B in Online Appendix S3).

The RRC (β in equation (1)⁹) is 0.84 three years after the start of the period, 0.75 10 years after, and settles at 0.68 after 18 years (Figure III), which attests to low intragenerational income mobility. We find a RRC at five-year intervals of 0.80 for the entirety of our field and 0.81 for

a field comparable to that used by Guvenen *et al.* (excluding self-employed people). These values are close to those estimated by Aghion *et al.* (2023) and Guvenen *et al.* (2022) in France: 0.84 and 0.83. Over this same five-year period, we can conclude, based on the results obtained by Guvenen *et al.* (2022), that the RRC over five years is higher in France than in the United

9. As a reminder, the RRC is calculated using all individuals aged 25 to 49, with the ranks being calculated within each birth cohort.

Figure III – Indicators of inertia and mobility based on the length of the period



Reading note: The rank-rank correlation (RRC) calculated between the years 2003 and 2008, i.e. five years later, is 0.80.

Coverage: France excluding Mayotte, individuals present in the POTE data in 2003 and 2021, aged between 25 and 49 in 2003 and declaring income in the year under review.

Sources: INSEE-DGFIP, panellised POTE 2003-2021, authors' calculations.

States (0.75) and the Nordic countries (0.68 in Denmark, 0.70 in Norway and 0.67 in Sweden). A comparison with other studies (see Online Appendix S2) also suggests lower intragenerational income mobility in France than in the United States, including over the longer term (20 years).

The R^2 of the equation (1) is 0.46, which means that almost half of the variability in the ranks seen in 2021 is explained by the ranks in 2003. While the inertia is very high, the positions are far from being entirely determined by those 18 years before.

To examine how the RRC evolves over time, we calculate mobility indicators for different cohorts over 10 years¹⁰ by monitoring them from the age of 35 to 44. The values for the indicators are very similar from one panel to another: the RRC over 10 years for each cohort is stable, around 0.75 (Figure IV). Over the 2003-2021 period, the measure of mobility over 10 years is therefore not significantly influenced by the choice of cohort (or, equivalently, the sub-period¹¹). This result is in line with Kramarz *et al.* (2022), who also find that wage mobility (measured over a period of 5 or 10 years) remained stable in France between 1995 and 2015. In the United States, mobility (measured over the short- or medium-term) has also been relatively stable since the 1960s, according to Kopczuk *et al.* (2010). Auten & Gee (2009) also show that mobility (measured using pre-redistribution income divided by consumption units)

varies little between the periods 1987-1996 and 1996-2005.

3.1.2. Transition Matrices

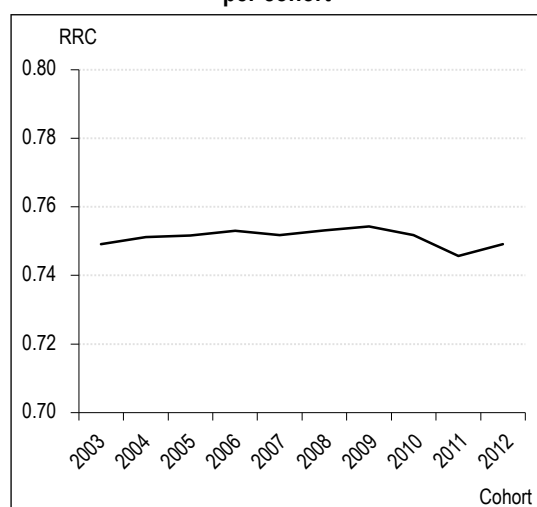
Another approach to income mobility consists in separating individuals into 5, 10 or 100 groups at the start of the period and then seeing which group they fall into 18 years later.

Among individuals in the lowest quintile of the individual income distribution in 2003, 57% remain among the poorest 20% in 2021 (Q1Q1), and only 4% experience Q1Q5 mobility into the highest quintile (see Figure V and Figure S3-III in Online Appendix S3 for another representation). Mobility is also low at the top of the distribution: 65% of individuals in the top income quintile in 2003 are still in this top quintile in 2021 (Q5Q5). The people among the top income quintile in 2003 are therefore 18 times more likely to be among the top income 18 years later compared to the people in the poorest quintile. The wealthiest 20% rarely experience Q5Q1 downward mobility (5%), although these situations do occur slightly more frequently for these individuals than Q1Q5 mobility (4%).

As with RRC, these statistics depend on the length of the period under consideration. The shorter the period, the higher the likelihood that Q1Q5 or Q5Q1 mobility will be low (see Figure III-B). Conversely, the shorter the period, the higher the likelihood of remaining in the top (or bottom) quintile: 69% (or 60%) at a 10-year interval, 75% (or 66%) at 5 years and 79% (or 70%) at a 3-year interval (Figure III-A). Remaining at the top of the distribution is also more prevalent than remaining at the bottom over a short period, but this gap decreases as the period is extended and all but disappears after 18 years.

This measure of inertia is also lower when the granularity is finer at the top of the distribution: 58% of individuals remain among the wealthiest 10% 18 years later (see Figure S3-IV in Online Appendix S3), and 36% remain among the wealthiest 1% (Figure S3-V). The individuals in the top 1% in 2003 also have a 75% chance of being in the top decile in terms of income 18 years later, and an 86% chance of being in the highest third of income. Over a shorter period, the likelihood of remaining in the top decile is

Figure IV – Rank-rank correlation over ten years per cohort

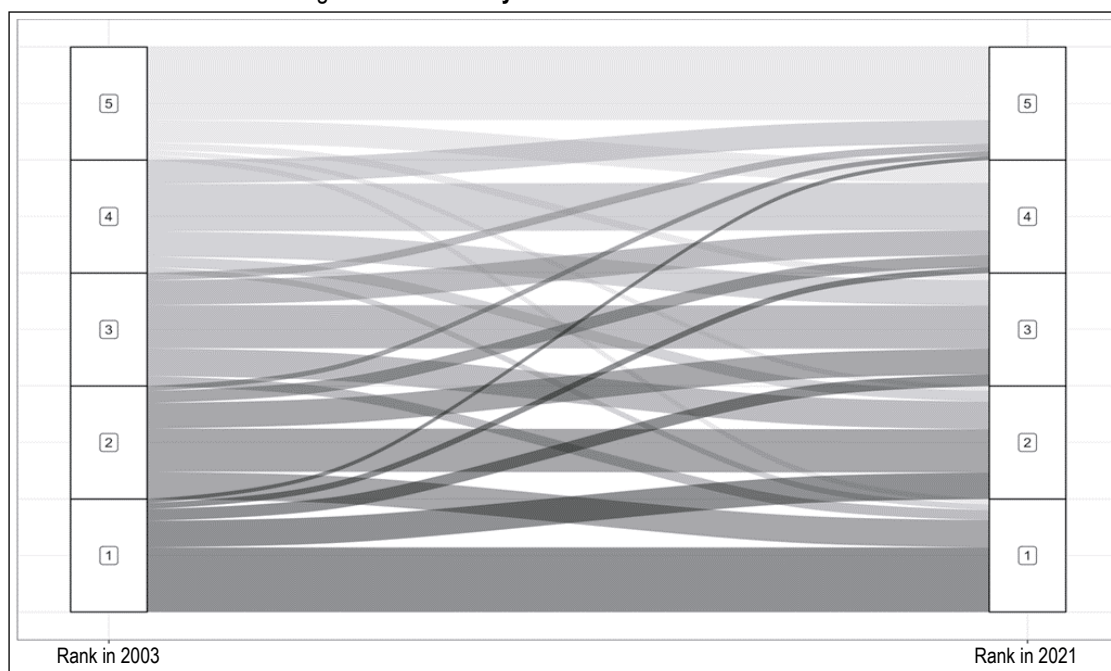


Reading note: The individuals aged 35 in 2003 have a rank-rank correlation (RRC) of 0.75 between 2003 and 2012. Coverage: Individuals aged 35 in year n (between 2003 and 2012) and present in the data for year n and year $n+9$. Sources: INSEE-DGFiP, panellised POTE 2003-2021, authors' calculations.

10. Specifically, each panel n is formed of individuals aged 35 in year n , and present in the data for year n and year $n+9$. The first panel is therefore formed of individuals aged 35 in 2003 and present in 2003 and in 2012 and the last panel is formed of individuals aged 35 in 2012 and present in 2012 and in 2021.

11. As age, period and cohort are collinear, it is not possible to distinguish between period and cohort at a given age.

Figure V – Income dynamics between 2003 and 2021



Reading note: Of the individuals in the lowest income quintile (Q1) in 2003, 57% remain there in 2021.

Coverage: France excluding Mayotte, individuals present in the POTE data in 2003 and 2021 and aged between 25 and 49 in 2003.

Sources: INSEE-DGFiP, panellised POTE 2003-2021, authors' calculations.

even higher (Figure III): 76% after five years (in line with the results obtained by Aghion *et al.*, 2023). Conversely, the poorest 10% of individuals in 2003 have almost a one in two chance (46%) of remaining in that group and an 89% chance of remaining in the lower half of the income distribution. International comparisons are complicated as the studies differ in various aspects: the concept of income considered, coverage, the length of the period over which the indicators are measured, the years of interest, whether or not equivalence scales are taken into consideration. By comparing our results against those of Auten *et al.* (2013a), we are, however, able to assert that mobility is weaker in France than in the United States. Those authors look at mobility based on income before redistribution, divided by consumption units.¹² They find that a little under half of the individuals aged between 35 and 40 belonging to the highest income quintile remain in that quintile 20 years later, with 40% remaining in the top decile and 24% in the top percentile. Across our data, taking into consideration the same-age population (35-40-year-olds) and using exactly the same concept of income, we obtain proportions of 59%, 52% and 32%, respectively,¹³ over a period of comparable length (18-year interval), or around 10 points more in terms of each measure of people remaining in the same position. Auten *et al.* (2013a) also obtain a higher

Q1Q5 mobility (5%, compared with 3% here). These comparisons suggest that income mobility is higher in the United States than in France, which is consistent with the results obtained by Kramarz *et al.* (2022) and the OECD (OCDE, 2018). A comparison with other US studies and other indicators also suggests lower mobility in France, as detailed in Online Appendix S2.

3.1.3. Robustness Checks

In this section, we present various robustness checks, firstly using a different concept of income (tax household income per declarant rather than individual income), then by adopting a different ranking method, in order to test measures of mobility.

Concept of income. The analysis above is carried out on individual earned and replacement income, by adding together the declarant's earned income, unemployment benefits and retirement pensions. In this section, we examine how the results change when using a different concept of income, that of household income, i.e. by adding together the individual income of each spouse, along with any (non-individualisable)

12. The latter are calculated using the square root of the number of people in each household.

13. By dividing household income by the number of consumption units and not the square root of household size, we obtain 58%, 51% and 32%, respectively.

investment and property income, and incidental income. This income is then divided by the number of taxpayers in the household.

The RRC at an 18-year interval, measured using household income per taxpayer (see Figure S3-II in Online Appendix S3), is very similar to that obtained for individual income. It sits at 0.66 (Table 1). The results obtained household income per taxpayer are also similar for the transition matrices. For example, the probability of remaining among the poorest 20% (Q1Q1) is 56%, and the probability of remaining in the highest quintile (Q5Q5) is 61%.

Pooling resources and taking into account income from capital therefore seems to have little impact on mobility. The main factors determining mobility appear more linked to the labour market (and to employment transitions).

Individual ranking. Above, the individuals are ranked by their income, within their birth cohort, in order to take into account age effects. However, it is also interesting to measure the ranks of the individuals within the entire population, i.e. all birth years combined. This offers a different perspective in which the individuals are compared to the entire population and not just to their own cohort. Ranking the individuals within the entire population rather than by birth year leads to a slightly weaker RRC for both individual income and household income (difference of 0.04 or 0.05, see table 1) and has little effect on the transition probabilities.¹⁴

Years considered. In the analysis of RRC and transition matrices above, income and ranks are defined for two dates: 2003 and 2021. In order to limit the effect of very temporary mobility on our measure of long-term mobility, we can consider mean income over two years,¹⁵ 2003-2004 for the start of the period and 2020-2021 for the

end of the period.¹⁶ The transition probabilities between quintiles calculated for the mean income over two years are similar to the values calculated on the basis of annual income, and we see a similar situation for the RRC, which is only slightly higher (0.72 between the incomes for 2003-2004 and 2020-2021, compared with 0.69 between 2003 and 2020). Our measure of mobility is therefore not greatly impacted by the decision to rank individuals based on their income over two years or over one year. In the primary analysis, we have therefore chosen to prioritise rank based on income for a single year, so as to allow for an analysis over a longer period, avoid the year 2020 (which is affected by the pandemic), and reduce attrition.

3.1.4. Mobility by Age

In this section, we show that income mobility between 2003 and 2021 decreases with age. The inertia indicators (such as RRC, Q1Q1 and Q5Q5) are increasing with age in 2003 (see Figure S3-VI in Online Appendix S3). The mobility indicators are all decreasing with age (see Figure S3-VII in Online Appendix S3). After the age of 40, the transition to retirement is reflected in a stabilisation (or even, locally, an increase) in mobility with respect to age.

We then examine more specifically the mobility of certain age ranges: the youngest (between 25 and 29 in 2003), those aged between 35 and 39, who are more settled on the labour market, and those aged between 45 and 49, transitioning to retirement over the period. The probability of

14. With the exception of the probability of remaining in the wealthiest 20%, which is around six points lower.

15. Chetty et al. (2014) show that there is a slight bias if income is considered for a single year, but that this bias becomes negligible if income is obtained by taking the mean over two or more years.

16. This test leads us to reduce the length of the period by one year and also leads to a little more attrition (linked to the requirement to declare positive income in 2003-2004 and 2020-2021).

Table 1 – Indicators of mobility and inertia, depending on the concept of income and ranking method

Income and ranking method	Rank-rank correlation	Inertia (%)		Mobility (%)	
		Q1Q1	Q5Q5	Q1Q5	Q5Q1
Individual income, ranking by cohort (primary analysis)	0.681	57.2	64.5	3.5	4.8
Individual income, ranking within total population	0.642	57.1	58.5	3.7	4.5
Household income per taxpayer, ranking by cohort	0.661	57.0	60.9	3.5	4.2
Household income per taxpayer, ranking within total population	0.615	55.7	56.0	4.0	4.1

Coverage: France excluding Mayotte, individuals with positive or no income in the POTE data in 2003 and 2021 and aged between 25 and 49 in 2003.

Sources: INSEE-DGFIP, panellised POTE 2003-2021, authors' calculations.

remaining in the highest quintile is lower for the youngest people (56%, compared with 68% for those aged between 35 and 39 and those aged between 45 and 49, see Table 2), as is the RRC (0.57, compared with 0.69 and 0.78), while Q1Q5 mobility is higher for the youngest people (6% compared with 3% for those aged between 35 and 39 and those aged between 45 and 49). This result is consistent with that obtained by Aghion *et al.* (2023) over a five-year period.

3.1.5. Mobility by Sex and Family Configuration

The RRC is 0.69 for men and 0.67 for women (Table 3). However, more women remain at the bottom of the distribution and fewer women at the top, including when taking household income per taxpayer into account. Women experience less Q1Q5 mobility (3%) than men (6%).

Individuals who report a legal union (marriage or civil partnership)¹⁷ between 2003 and 2021 are more mobile: they have a weaker RRC (0.60 for women and 0.58 for men). Furthermore, they experience more Q1Q5 mobility and less persistence among the poorest 20%. The difference in transition rates differs by sex: men who report a legal union are far less likely to remain at the bottom of the distribution and more likely to transition to the top than other men, while for women, a union makes little difference.

Individuals reporting a separation (end of marriage or civil partnership) are also more mobile. However, the “effects” on mobility differ by sex. Women who undergo a separation

17. Here, legal unions and separations refer only to contractual unions (marriage or civil partnerships). In 2011, according to INSEE's enquête sur la famille et les logements (family and housing survey), 73% of couples are married, 4% are in a civil partnership, and 23% are living together without being married or in a civil partnership.

Table 2 – Indicator of mobility and inertia, by age range

Age range in 2003	Rank-rank correlation	Inertia (%)		Mobility (%)	
		Q1Q1	Q5Q5	Q1Q5	Q5Q1
25-29 years	0.57	48	56	6	6
35-39 years	0.69	56	68	3	5
45-49 years	0.78	68	68	3	2
All 25-49 year olds	0.68	57	65	4	5

Coverage: France excluding Mayotte, individuals with positive or no income in the POTE data in 2003 and 2021 and aged between 25 and 49 in 2003.

Sources: INSEE-DGFIP, panellised POTE 2003-2021, authors' calculations.

Table 3 – Indicator of mobility and inertia, by sex

Population	Rank-rank correlation	Inertia		Mobility	
		Q1Q1	Q5Q5	Q1Q5	Q5Q1
Women					
All women (1)	0.67	57%	59%	3%	5%
Only those reporting a legal union (2)	0.60	51%	53%	4%	7%
Only those reporting a separation (3)	0.61	39%	68%	4%	4%
(2) – (1)	-0.07	-6 pp	-6 pp	1 pp	2 pp
(3) – (1)	-0.06	-18 pp	9 pp	1 pp	-1 pp
Men					
All men (1)	0.69	57%	67%	6%	5%
Only those reporting a legal union (2)	0.58	37%	69%	14%	4%
Only those reporting a separation (3)	0.66	53%	62%	5%	6%
(2) – (1)	-0.11	-20 pp	2 pp	8 pp	-1 pp
(3) – (1)	-0.03	-4 pp	-5 pp	-1 pp	1 pp

Notes: The ranks are calculated within the panel as a whole (men and women together). Reporting of a legal union provides information on whether the taxpayer states that they are single, divorced or widowed at the start of 2003, but married or in a civil partnership at the start of 2021. Reporting of a separation provides information on whether the declarant states that they are married or in a civil partnership at the start of 2003, but single, divorced or widowed at the start of 2021.

Reading note: Of the wealthiest 20% in 2003, 59% of women and 67% of men are still in the wealthiest 20% in 2021.

Coverage: France excluding Mayotte, individuals with positive or no income in the POTE data in 2003 and 2021 and aged between 25 and 49 in 2003.

Sources: INSEE-DGFIP, panellised POTE 2003-2021, authors' calculations.

are far less likely to remain at the bottom of the distribution and more likely to remain at the top than other women, while for men, a separation makes little difference.

While this analysis does not reveal a causal effect of a legal union or separation on income mobility, it does, nevertheless, allow us to conclude that individuals who enter into unions or separate have greater income mobility, and that the increase in mobility is higher for men in the case of a union, and for women in the case of a separation.

3.1.6. Mobility by Activity Status

Activity status at the start of the period, estimated on the basis of the main source of income,¹⁸ is another key factor determining mobility. Self-employed people are, on average, more mobile than employees: their RRC is 0.52, compared with 0.70 for employees. This higher mobility can be partly explained by more frequent extreme mobility than that observed among employees: within the poorest 20%, 7.6% of self-employed people experience a Q1Q5 mobility, and within the top income quintile Q5, 8.4% experience Q5Q1 mobility, compared to 4.0% and 4.3%, respectively, for employees.¹⁹ Self-employed people also remain at the top of the distribution less than employees (see Figure S3-VIII in Online Appendix S3). Self-employed people experience less mobility (almost two times less for Q1Q5 and Q5Q1 transitions) when we consider household income rather than individual income, which may be attributed to the fact that an individual's income is harmonised with that of their spouse, with the latter possibly being less variable.

A change in activity status is also correlated to income mobility. Mobility is more frequent among individuals whose activity status changed between 2003 and 2021. This result is consistent with those obtained by Jauneau & Raynaud (2009), which show that the factor most strongly correlated with individual standard of living dynamics in the short-term is a change in labour market situation. For example, in our study, 65% (or 75%) of individuals who experienced Q1Q5 mobility (or Q5Q1 mobility) changed activity over the period (compared with 41% across the panel as a whole). Downward mobility is particularly frequent: 25% of individuals whose activity status changed experienced downward mobility of at least two deciles (compared to 14% for those remaining in the same activity situation) and 12% of the wealthiest 20% experienced Q5Q1 mobility (compared to 2%).

3.1.7. Mobility by Region

Mobility along the income scale varies by place of residence in 2003. In this section, individuals are still ranked within France as a whole, and not within their place of residence (region, department, etc.). The indicators therefore partly reflect the labour market differences between regions.

Living in large urban areas increases the chance that a person will remain at the top of the distribution (Table 4, see also Figure S3-IX in Online Appendix S3): the proportion of individuals who remain in the highest quintile is 53% in municipalities outside of the functional urban areas and 67% in Paris. This may reflect the fact that wages are higher in functional urban areas (INSEE, 2021), especially in more populated areas. The largest functional areas (over 700,000 inhabitants and the Paris area) are also those where the Q1Q5 mobility is highest. For example, in Île-de-France, Q1Q5 and Q5Q1 transitions are more frequent than in other regions (Figure VI). Q5Q5 mobility is also much higher here (Figure VII-A, see also Figure S3-X in Online Appendix for a map by department).²⁰ In the rest of France, the region where the positions along the income scale are the least fixed (at the top and bottom of the distribution) seems to be Brittany. This is also the region with the lowest unemployment rate in France (7.0% of the labour force in 2021), and which attracts many new arrivals. Conversely, Q1Q1 mobility is highest in Hauts-de-France (Figure VII-B, see also Figure S3-XI in the Online Appendix) where the unemployment rate in 2021 is the highest in mainland France (10.4%), and Q1Q5 mobility is lowest in the departments in northern and central France (Figure VI-A). Q5Q1 mobility is higher in southern France, in particular in the Mediterranean region, and lower in central and north-western France (Figure VI-B).

Geographic mobility often goes hand in hand with income mobility: among individuals having experienced very upward mobility, 35% moved department between 2003 and 2021 (44% for those having experienced Q5Q1 mobility, compared with 20% for the panel as a whole). The RRC of individuals having moved department is therefore lower (see also Aghion *et al.*, 2023). They also experience more Q1Q5 mobility (7% compared with 3% for those remaining in

18. Among the following income categories: "wages", "income of self-employed people", "pensions and annuities", "unemployment and early retirement", or "no income".

19. Likewise, 8% of Q1Q5 mobility and 16% of Q5Q1 mobility is attributable to self-employed people, even though these represent just 5% of the individuals studied.

20. Combined with a low level of persistence among the poorest 20% (Figure VII and see Figure S3-XI in the Online Appendix).

Table 4 – Indicators of mobility and inertia by functional urban area size (as a %)

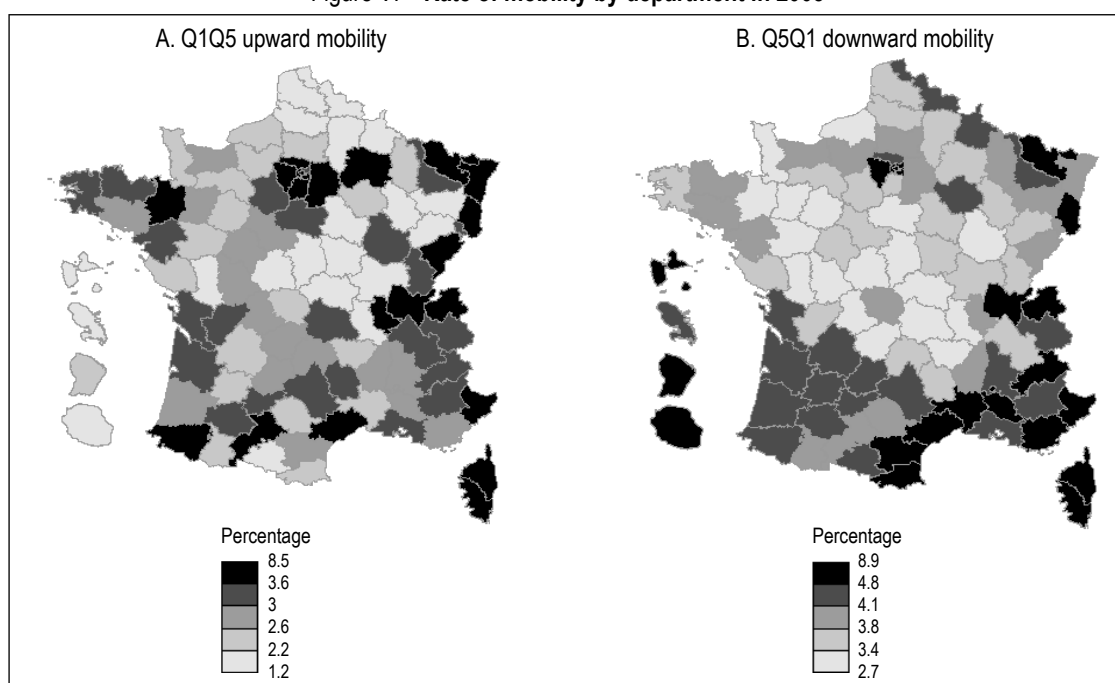
Functional urban area size	Inertia				Mobility			
	Q1Q1	D1D1	Q5Q5	D10D10	Q1Q5	D1D10	Q5Q1	D10D1
Outside functional urban area	54.32	40.94	53.48	45.75	2.95	1.16	5.16	2.69
Area with fewer than 50,000 inhabitants	58.23	46.13	57.02	50.26	2.32	0.92	4.19	2.38
Area with between 50,000 and 200,000 inhabitants	59.52	47.49	60.46	54.44	2.24	0.87	3.76	2.27
Area with between 200,000 and 700,000 inhabitants	59.46	48.43	64.12	57.78	2.71	1.07	4.01	2.49
Area with 700,000 inhabitants or more (excluding Paris)	55.54	45.27	66.86	60.67	3.99	1.98	4.28	2.72
Paris area	53.4	44.87	66.87	61.6	4.78	1.88	4.99	3.36

Notes: The functional urban area (INSEE 2020 zoning) is determined based on the place of residence taken in 2003.

Coverage: France excluding Mayotte, individuals present in the POTE data in 2003 and 2021 and aged between 25 and 49 in 2003.

Sources: INSEE-DGFIP, panellised POTE 2003-2021, authors' calculations.

Figure VI – Rate of mobility by department in 2003



Coverage: France excluding Mayotte, individuals in the poorest 20% in 2003, present in the POTE data in 2003 and 2021 and aged between 25 and 49 in 2003, authors' calculations.

Sources: INSEE-DGFIP, panellised POTE 2003-2021.

the same department) and, in 2021, are more concentrated in areas where pay is higher, such as Île-de-France. In the overseas departments (DOMs, excluding Mayotte), regions that are more geographically isolated, the inertia on the income scale is particularly high, both among the wealthiest and poorest.

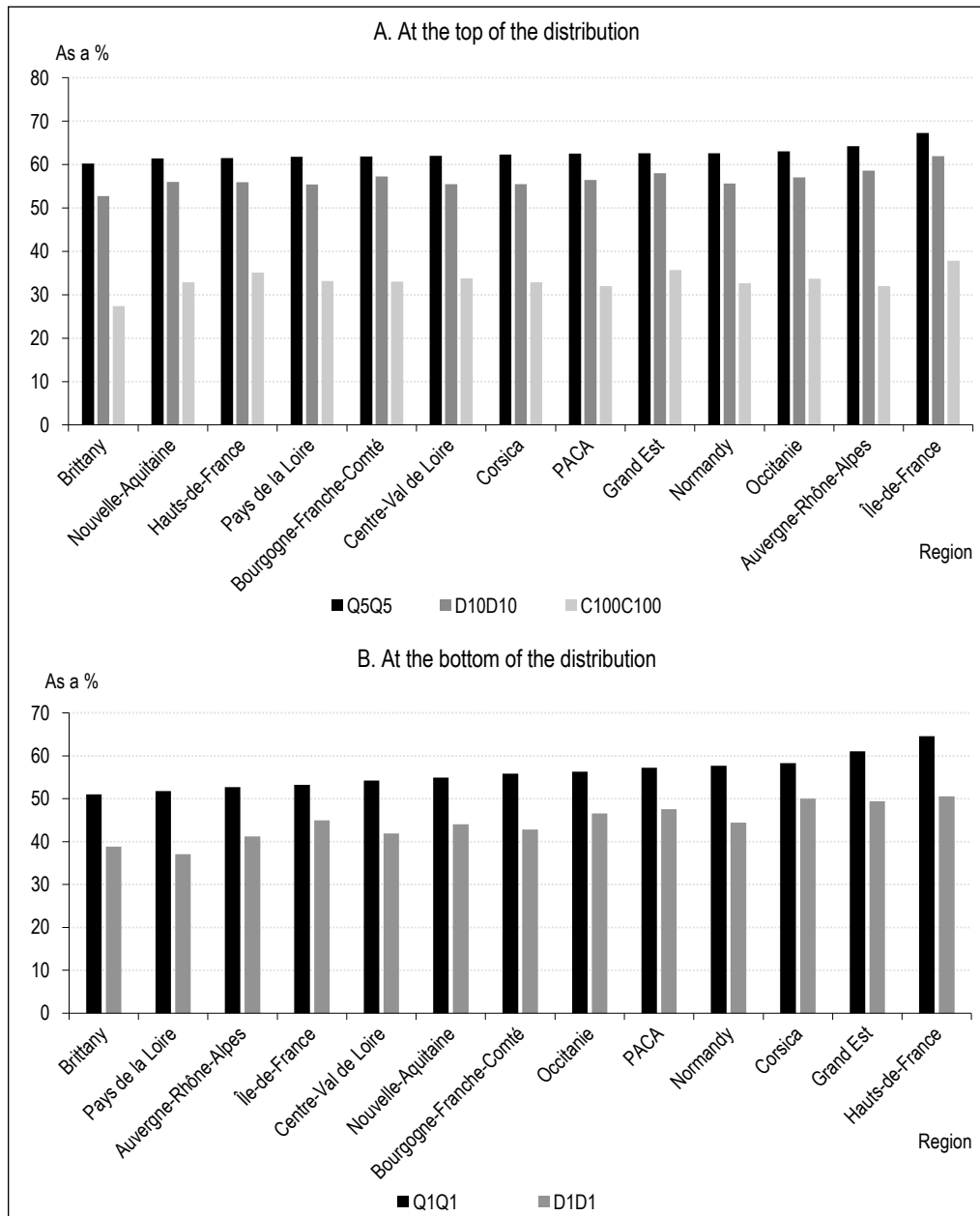
3.2. Link Between Mobility and Measure of Inequality: The Shorrocks Index

The Shorrocks index (1978) is used to measure the reduction in inequality (expressed as a percentage of the coefficient of inequality,

approached, for example, via a cross-sectional Gini index) caused by income mobility on the permanent income of the population. It is also an indirect indicator of inequality, according to Kopczuk *et al.* (2010). Formally, the Shorrocks index is the ratio between the Gini index measured using permanent income (G_j^p), calculated as the mean income over j years, and the average Gini index over j years calculated each year i (G_i , $i=1, \dots, j$):

$$Mob_{sh}^j = 1 - \frac{G_j^p}{(G_1 + \dots + G_j) / j}. \quad (2)$$

Figure VII – Inertia indicators by region (in 2003)



Coverage: France excluding Mayotte, individuals present in the POTE data in 2003 and 2021 and aged between 25 and 49 in 2003.
Sources: INSEE-DGFIP, panelised POTE 2003-2021, authors' calculations.

In practice, we often prefer to use the mobility index Mob_{Sh} , which also ranges between 0 and 1. The closer this index Mob_{Sh} is to 0, the greater the inertia. For example, by considering the extreme case in which the income distribution is the same each year, but in which the positions of the individuals are drawn at random each year (high mobility), the permanent income of individuals is very similar to the mean permanent income and the Gini index calculated on the basis of permanent income G_i^p is much lower than the Gini index calculated on the basis of the income for a single year. According to equation (2), $1 - Mob_{Sh}$ will therefore be close to 0 and Mob_{Sh} close to 1.

In the following, we look at only those individuals declaring non negative income each year over the entire period²¹ and incomes

21. The individuals present each year (cylindrical panel) have characteristics in 2003 that are very similar to the individuals on the primary panel used in section 3.1 (individuals with non negative income in 2003 and 2021 but not necessarily each year in between). In 2003, the individuals on the primary analysis panel are, on average, the same age as the individuals on the cylindrical panel (37). Almost the same proportion in both cases are married (51% compared with 52%), employees (78% compared with 81%), self-employed (5% compared with 4%) and almost the same proportion have no income (10% compared with 9%). The average individual income in 2003 is €17,300 in the primary analysis panel, which is similar to the figure of €17,800 in the cylindrical panel. The Gini index calculated using the cylindrical panel also develops similarly to that calculated using the primary analysis panel (see Figure S3-XII in Online Appendix S3).

are normalised so they have the same mean each year.²²

The Gini index on income considered to be “permanent” (mean income for 2003-2021) is 0.024 points (or 5.9%) lower than the Gini index measured in 2003 (Figure VIII). The gap can be explained, not by a reduction in inequalities over the period (these inequalities increase with a higher Gini index of 0.010 between 2003 and 2021), but due to the mobility of the individuals along the income scale. This is because mean income is flattened over the period and is less dispersed than annual income. The ratio between the Gini index calculated using mean income between 2003 and 2021 (0.378) and the mean cross-sectional Gini index between 2003 and 2021 (0.409) is 0.932. The mobility indicator Mob_{Sh} is therefore 0.068 in France for the period 2003-2021. This means that taking into account individual income over almost two decades only reduces the mean Gini coefficient for annual income by 6.8%.

Permanent income inequality is therefore quite similar to cross-sectional income inequality. This is a direct consequence of strong income inertia: this inequality is barely mitigated by individual mobility as this mobility is low.

As with previous mobility indicators, Mob_{Sh} increases with the length of the period considered: it is 3.8% over 6 years (from 2003 to 2008), 5.4% over 12 years, and 6.8% over 19 years, our period of interest (Table 5). It is slightly higher

(7.7%) if we switch from individual income to look at tax household income divided by the number of taxpayers in the household. The Mob_{Sh} index also indicates, as does the RRC, that mobility is stable over the period: the index over 10 years is between 5.3% and 5.4% for different cohorts (see Figure S3-XII in Online Appendix S3).

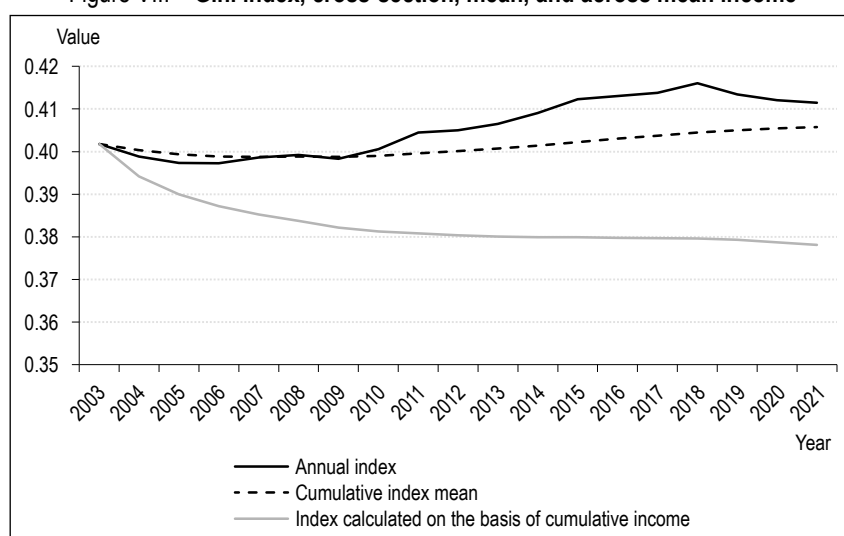
In the United States, Kopczuk *et al.* (2010) obtain a coefficient of 4% over a period of five years (excluding self-employed people), i.e. a slightly higher level than the one we obtain over a similar period.²³ A comparison with the results obtained by Jäntti & Jenkins (2015) and Buchinsky & Hunt (1999) over longer periods confirms that the Mob_{Sh} index would be higher in the United States (see Online Appendix S2).

Lastly, we calculate the Gini index and the Mob_{Sh} index for each age range (see Figures S3-XIII and S3-XIV in Online Appendix S3). The distinctive feature of the lowest and highest age ranges of our panel (entry into the labour market for the youngest and transition to retirement for the oldest) is, in particular, visible in the Mob_{Sh} index (see Figure S3-XIV). Within the youngest cohort (25-29-year-olds), the steep gradient at

22. This normalisation is carried out so as not to give more weight to years in which nominal income is higher (in particular, at the end of the period) due, in particular, to inflation. We therefore use the method proposed by Kopczuk *et al.* (2010).

23. We obtain a coefficient of 3.4% over a five-year period (between t and $t+4$) over the entire field of coverage, and 3.3% if we exclude the income of self-employed people so as to have the same field of coverage as Kopczuk *et al.* (2010).

Figure VIII – Gini index, cross-section, mean, and across mean income



Notes: The curves correspond to the elements in equation (2). The cumulative index mean for year n is the mean of the Gini annual indices between 2003 and year n .

Coverage: France excluding Mayotte, individuals with positive or no income in the POTE data from 2003 to 2021 and aged between 25 and 49 in 2003.

Sources: INSEE-DGFiP, panellised POTE 2003-2021, authors' calculations.

Table 5 – Shorrocks mobility index by length of period considered

Period	Gini index on mean income for the period considered	Mean annual Gini index over the period considered	Mob_{sh} index (%)
2003-2008	0.384	0.399	3.8
2003-2014	0.380	0.401	5.4
2003-2021	0.378	0.406	6.8

Reading note: The mobility index is 6.8% over the 2003-2021 period for individuals aged between 25 and 49 in 2003, which means that the Gini index measurement, taking into account all income received by these individuals between 2003 and 2021, reduces the inequalities measured by the mean Gini index each year between 2003 and 2021 by 6.8%.

Coverage: France excluding Mayotte, individuals with positive or no income in the POTE data from 2003 to 2021 and aged between 25 and 49 in 2003.

Sources: INSEE-DGFIP, panellised POTE 2003-2021, authors' calculations.

the start of the period indicates high temporary mobility. At the other end, in the cohort of 45-49-year-olds, the transition to retirement is reflected in an increase in the gradient (and therefore mobility) around 2010-2015 (i.e. with transition at 60-65 years of age), in relation to the other age ranges.

* *
*

This study shows that income level persistence in France is high: the rank-rank correlation at an 18-year interval is 0.68. Nearly two-thirds of the individuals in the top income quintile in 2003 are still in the top quintile in 2021. This persistence is particularly visible at the very top of the distribution: 36% of the individuals in the top 1% of the income distribution can be seen there again in 2021. Income mobility over working life seems, on average, to be lower in France than in the United States. Once individuals have entered the labour market, their positions are more fixed and they have fewer opportunities for mobility over their working life.

We have also shown that this low intragenerational income mobility means that the cross-sectional income inequality is close to that of permanent income inequality over almost 20 years. Taking income over almost two decades into account only reduces the Gini coefficient measured over a given year by 7%. Finally, while Buchinsky *et al.* (2003) have shown that different mobility indicators led to different conclusions in the 1990s, all the indicators that we calculated here converge towards the conclusion that mobility in France has been low throughout life since the start of the 2000s.

This low income mobility may be linked to the relative weakness in professional mobility in France. The first factor is linked to the

importance of the initial degree, which persists and fixes positions: for example, Maurin (2009) mentions “the exorbitant value that degrees have ended up acquiring” in particular in terms of access to a job with status, which is probably more marked than in the United States. Moreover, inequality in accessing professional training heightens the importance of a degree and restrict mobility. The rate of access to skills training for adults in France is low, especially in the case of temporary contracts (training rate of 32% in France compared with 75% in the United States between 2012 and 2015, Goujard *et al.* (2019)), limiting the chances of upward mobility for the poorest individuals. Some studies link low professional mobility to low geographic mobility (Lemoine & Wasmer, 2010; OCDE, 2018), in particular due to the costs of mobility in terms of housing and childcare. According to Goujard *et al.* (2019), geographic mobility among young people who are unemployed or not working is particularly low in France when compared internationally, and the price of housing and the transfer tax level contribute to a skills mismatch (the effect of transfer taxes on the skills mismatch is over three times higher in France than in the United States). A third factor is the fact that France has higher rigidities and segmentation of the labour market, which make job mobility more difficult (Lemoine & Wasmer, 2010; Cahuc *et al.*, 2014). Lastly, the thesis posited by Thomas Philippon (2007) of a “capitalism of heirs with conservative and frustrating managerial practices for employees”²⁴ could also offer a potential explanation for low professional and income mobility in France.

This study primarily aims to provide statistics on general mobility across the income distribution and offers some initial evidence of mobility for people with the lowest income and people with the highest income. The creation of this

24. Inheritance is used here in both a direct sense (in the form of an inherited transfer) and a sociological sense (in the form of the social reproduction due to degree and status).

long panel of fiscal data therefore offers several avenues for additional studies into individual income dynamics, especially at the bottom of

the distribution for examining the persistence of poverty or at the top for measuring the mobility of the top income earners. □

Link to the Online Appendix:

www.insee.fr/en/statistiques/fichier/8562095/ES545_Loisel-Sicsic_OnlineAppendix.pdf

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