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DISCUSSION PAPER SERIES

IZA DP No. 17996

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ABSTRACT

Who Climbs the Income Ladder? Cross-Country Evidence on Income Mobility from Tax Record Data*

Income shocks and limited upward mobility can undermine people's well-being and economic prospects. Most cross-country studies on income mobility over people's lives rely on survey data, but small samples limit detailed analysis by socio-demographic group or segment of the distribution. This paper presents first results of an OECD initiative collecting and harmonising administrative microdata to study income dynamics across countries. Applying rank-rank methods, it measures relative mobility in disposable incomes over five years for working-age people in Austria, Belgium, Canada and Estonia. The paper shows that: i) income persistence is strongest at the bottom and top of the distribution; ii) young people experience larger shifts in income ranks, though not always greater upward mobility; iii) women experience weaker upward mobility than men, particularly in the bottom half of the distribution; and iv) people with tertiary education move up the income ladder, at the expense of those with lower education.

JEL Classification: D31, I31
Keywords: income distribution, income mobility, administrative microdata

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1. Introduction

Changes in incomes, even if temporary, can significantly affect people's well-being and economic prospects. People who experience negative income shocks report lower life satisfaction (Bayer and Juessen, 2015[1]) and greater financial distress (Bufe et al., 2021[2]), those who face sustained income volatility exhibit worse health outcomes (Adeline et al., 2019[3]; Prause, Dooley and Huh, 2009[4]). Negative life events, such as job loss or sickness, can leave those affected on persistently lower income trajectories (Bertheau et al., 2022[5]; García-Gómez et al., 2013[6]). And while, ideally, those at the bottom of the income distribution have opportunities for climbing the income ladder over time, people of old age, with low educational attainment and without work often struggle to do so and may face persistent poverty (Biewen, 2014[7]).

Such lack of upward income mobility can pose significant economic and social challenges. Persistent poverty leads to underinvestment in human capital if those at the bottom of the income ladder lack the financial resources to acquire human capital, or if they perceive the returns from education and training to be limited (Cingano, 2014[8]; Ceroni, 2001[9]). This, in turn, can hinder economic growth. Limited income mobility can also undermine social stability: evidence from social experiments indicates that lower perceived mobility over the life course is associated with reduced support for the existing socio-economic system (Day and Fiske, 2016[10]). A lack of upward mobility can also reinforce patterns of discrimination and stigma, as cultural and ethnic minorities are often overrepresented at the lower end of the income distribution.

A large body of literature provides empirical evidence on income mobility over people's lives in advanced economies (for a comprehensive overview see Jäntti and Jenkins (2015[11])), but data limitations have constrained the scope and granularity of comparative evidence. Most notably, the OECD report *A Broken Social Elevator?* (OECD, 2018[12]) provided comprehensive evidence on income dynamics across OECD countries over short periods. The report highlights the existence of "sticky floors" and "sticky ceilings", i.e. particularly low mobility in the bottom and top quantiles of the distribution and draws conclusions for policy. However, the household survey data used in such analyses come with several drawbacks for studying income trajectories, such as short observation periods; limited sample sizes, exacerbated by panel attrition; income measurement errors; and poor coverage of top incomes (Ravallion, 2022[13]; Moore et al., 2000[14]). As a result, these data come with limitations for analysing the mobility patterns for specific socio-demographic groups, across narrow segments of the income distribution (e.g., the bottom percentiles), over longer periods, and across places.

Register-based income data can help overcome these challenges, but their use for studying mobility in disposable incomes remains limited to a few countries (Aghion et al., 2023[15]; Leth-Petersen and Sæverud, 2022[16]; Jenderny, 2015[17]; Aaberge, Atkinson and Modalsli, 2013[18]; Auten and Gee, 2009[19]). Cross-country comparisons are rare, except for the Nordic countries (Aaberge et al., 2002[20]). To the best of the authors' knowledge, there has been little systematic effort to date to produce comparable measures of mobility in disposable incomes across multiple countries and demographic groups using administrative records.[1]

This paper represents the first output of an OECD initiative that aims to fill this gap. It results from a larger effort to collect and harmonise administrative microdata from tax records and complementary income and census registers to use them for cross-country analysis of income dynamics. The paper provides descriptive evidence on short-term income mobility over people's lives in four countries: Austria, Belgium, Canada, and

Estonia. It focuses on *relative* income mobility, i.e., traces changes in people's position in the income distribution, over a five-year interval. Exploiting the high granularity of administrative income data, the paper describes patterns in income dynamics across the income distribution and compares the results for different socio-economic groups across countries using rank-rank analysis. Its approach follows earlier analyses for single countries, for example by Chetty et al. (2014[21]) for the United States and Aghion et al. (2023[15]) for France.

The main results of the analysis are as follows:

- *People in the bottom and top of the income distribution experience limited income mobility*. Across countries, between 44% and 57% of those in the bottom income decile still find themselves in the bottom decile after five years, twice the rate observed for the middle deciles. Income persistence is a little higher still for those in the top decile, with rates between 51% and 63%.
- *Levels of short-term income mobility differ across countries*. The share of people who, over the five-year period, remain in the same income decile or move only into neighbouring deciles ranges from 55% in Estonia to 70% in Canada. Income persistence measured by the slope of five-year rank-to-rank regressions ranges from 0.64 in Estonia (lowest persistence, i.e. greatest mobility) to 0.8 in Canada (lowest income mobility).
- *Young people experience larger changes in their income position, but prime-aged people have better mobility outcomes*. Those in their late 20s experience significant income fluctuations as they move out of their parental homes and find their foot in the labour market. However, strong *upward* mobility at the bottom coincides with large *downward* mobility at the top. People in their 40s exhibit the most favourable income mobility outcomes, with on average larger upward movements and more limited downward movements.
- *Women find it harder than men to climb the income ladder.* Men exhibit stronger upward mobility than women in the bottom half of the income distribution, which probably reflects lower labour market attachment among women. In the upper half of the distribution, the gender gap in mobility outcomes narrows, though not in all countries.
- *People with tertiary education advance on the income ladder.* Across the entire income distribution, people who have completed tertiary education have a systematically higher income rank after five years than those with lower educational attainment. This leads to an increased "sorting" of the income distribution by level of education.

The remainder of this paper is organised as follows. Section 2. reviews the relevant literature, highlighting the contribution of this paper. Section 3. presents the data and summarises some key methodological choices. Section 4. introduces the rank-rank method and provides a snapshot of major cross-country mobility patterns. Section 5. zooms in on the mobility patterns of specific socio-demographic groups. Section 6. concludes and discusses avenues for future research.

2. Related literature

There is a wealth of cross-country analysis of income mobility over the life course, relying primarily on panel data from national or cross-country household surveys. The simplest approach has been to study people' movements across the income distribution using transition matrices, grouping people into deciles (Alves and Martins, 2012[22]; Chen, 2009[23]) or quantiles (OECD, 2018[12]) and tracing them over time. Such studies consistently find that most people experience limited mobility, generally remaining near their initial positions in the income distribution over short periods. Those at the bottom and top end of the income distribution exhibit substantially less mobility than those in the middle.

An alternative approach has been to quantify the level of income mobility using mobility indices. Shorrocks' (1978[24]) index measures how movements across the income distribution reduce inequality over time; Fields and Ok's (1999[25]) index captures people's income growth over time relative to their initial income. An attractive feature of such aggregate indices is that they provide a single metric that can be used also to rank countries, though rankings often depend on the chosen index and time span (Jäntti and Jenkins, 2015[11]; Ayala and Sastre, 2007[26]; Gangl, 2005[27]; Van Kerm, 2004[28]). Moreover, the interpretation of mobility indices can be challenging for non-technical audiences, limiting their usefulness in policy analysis.

Leveraging the fact that mobility indices that can be decomposed by population group and incorporated into regression analysis, several cross-country studies have identified demographic groups experiencing lower average income mobility, such as older individuals, those with lower educational attainment, and the unemployed (Casabianca and Giarda, 2020[29]; Aristei and Perugini, 2015[30]; Ayala and Sastre, 2007[26]). Yet, a comprehensive understanding of income mobility across demographic groups remains elusive. Since indices of the type proposed by Fields and Ok measure income changes in *absolute* terms, they cannot explain how people's income growth relates to their position in the income distribution. For example, while younger people may exhibit higher average income growth than older people, the index does not provide any information on whether, and by how much, they move up the income ladder relative to others.

The scope and quality of the survey data used in these studies has often been a limiting factor. Because of small sample sizes, these studies usually cannot provide detailed demographic breakdowns (e.g., for young immigrant men), or examine how mobility varies *within* demographic groups for people located in different parts of the income distribution – analysis that would be helpful for nuanced policy analysis. Cross-country studies of income mobility have been constrained by short observation periods and panel attribution. For example, studies for European countries typically rely on the EU Statistics on Income and Living Conditions (EU-SILC), which tracks households only for four years. Many surveys also struggle to accurately sample high-income individuals (Ravallion, 2022[13]; Bartels and Waldenström, 2021[31]), while those at the bottom may underreport receipt of certain cash benefits due to social stigma (Celhay, Meyer and Mittag, 2025[32]). These limitations pose challenges for studying income mobility at the extremes of the distribution.

As a result, the use of administrative data, particularly tax records, has gained traction for studying income mobility in recent years, though cross-country work remains scarce. Data from administrative records come with their own limitations, including in some cases only partial population coverage, income underreporting because of tax evasion, and limited socio-demographic information (Gil-Izquierdo and Picos-Sánchez, 2016[33]). Still, administrative data offer some key advantages over survey data for the study of income dynamics.[2] These include i) longer observation periods, ii) limited panel attrition, iii) substantially larger sample sizes, and iv) more precise income measurement, particularly at the top of the income distribution.

Building on these advantages, several studies have used such data to study income mobility for single countries: Jenderny (2015[17]) shows that top income earners in Germany are less prone to downward mobility than people in other income segments, a pattern that had been previously observed in Norway (Aaberge, Atkinson and Modalsli, 2013[18]); Gil-Izquierdo and Picos-Sánchez (2016[33]) report greater income persistence in Spanish tax records compared to previous studies using survey data, particularly at the top of the distribution, and highlight that tax records are less representative at the bottom due to filling requirements; Loisiel and Sicsic (2024[34]) document strong persistence in people's income ranks over more than 15 years in France, which suggests that longer observation periods do not necessarily translate into higher relative income mobility; and Leth-Petersen and Sæverud (2022[16]) find that the Danish welfare system plays a key role in smoothing disposable incomes when earnings fluctuate. Earlier studies using tax record data examined patterns of relative income mobility across the distribution in the United States, highlighting the influence of factors such as age, changes in marital status, employment status, and geographic location in shaping upward mobility (Auten, Gee and Turner, 2013[35]; Auten and Gee, 2009[19]). In a very early study using administrative records, Aaberge et al. (2002[20]) compare income mobility in the Nordic countries and the U.S., concluding that the mobility ranking of the two countries depends on the type of income and mobility metric used, even as income inequality is much greater in the U.S.. The most relevant reference for this paper is the recent work by Aghion et al. (2023[15]), who compute transition matrices and rank-rank slopes to describe relative income dynamics in France, disaggregated by region and age group.

This paper provides comparable analysis of income mobility for four countries, following the methodological approach used by Aghion et al. (2023[15]), contributing to the literature in at least two ways. Firstly, it is one of the earliest attempts to produce cross-country evidence on relative mobility in disposable incomes using administrative (mostly tax) records. Three of the countries covered – Austria, Belgium and Estonia – have been underrepresented in the income mobility literature so far. Secondly, by leveraging the large sample sizes and precision of administrative data, this paper presents cross-country evidence on the demographic factors shaping short-term income trajectories across the entire income distribution.

3. Data and methodological choices

The findings presented in this paper are the first output from an OECD initiative aimed at collecting and harmonising administrative data on incomes and taxes from different sources, at both household and individual level, to exploit them for cross-country analysis. This section provides an overview of the administrative microdata used in this paper, including their coverage of income sources, taxes and contributions, as well as their reference population. It then discusses key methodological choices made regarding the definition of the income variable, the construction of the sample, and the period of analysis.

3.1. Data

The microdata collected as part of this project are primarily based on annual tax records, which for most countries were merged with other types of administrative data to enrich income and demographic information (see Annex A for a list of data sources). The resulting databases generally achieve a very good coverage of the most important income sources, taxes, and contributions paid, at both the household and individual level. Coverage is not perfect though, and it slightly differs across countries, primarily due to variations in tax reporting and the design of national benefit systems.

Specifically, the data used in this paper cover the following components, as outlined in Table 1:

- *Market income*, which encompasses earnings form employment and self-employment, capital income (property rents, realised capital gains,[3] dividends, interests and life insurance payments), incomes from private voluntary and occupational pensions, and inter-household transfers. In Austria and Belgium, certain forms of capital and private pension income are subject to withholding taxes at the source; these are either not captured in the data or can be significantly underreported.
- *Government transfers,* though the coverage varies slightly by country. Data on most insurance-based transfers (e.g., unemployment benefits, public pensions) and child and family benefits are available for all countries, while data on means-tested benefits are less complete in some countries.
- *Taxes and social-security contributions.* The data cover information on income taxes and social contributions paid. Property and other wealth-related taxes, where they exist, are missing. In Estonia, some tax components are simulated.

For a more detailed overview of the data coverage, see Annex A.

Differences in the coverage of income components across countries imply that the data are not perfectly comparable. Partly for this reason, this paper largely focuses on identifying cross-country similarities in mobility patterns between demographic groups and across the income distribution, though some broader cross-country differences are occasionally highlighted. Even more standardised survey data on incomes, including from international surveys such as the EU-SILC, face comparability challenges. These include missing income components and differences across countries in how income from various sources is aggregated into final variables (Goedemé and Trindade, 2020[36]; Iacovou et al., 2012[37]). Unlike most income surveys, the administrative records used in this study impose minimal or no capping on top incomes. In Belgium, income variables are capped at the 99th percentile; no capping is applied in other countries. This allows analysing mobility patterns up to the top percentile of the income distribution across all countries.

Table 1. Coverage of income and tax components across countries

Disposable household income components		Austria	Belgium	Canada	Estonia
Market income	Employment and self-employment income	✓	✓	✓	✓
	Capital income	•	•	✓	✓
	Private occupational and voluntary pensions	•	•	✓	✓
	Mandatory inter-household transfers received	✓	✓	✓	✓
	Mandatory inter-household transfers paid	•	✓	✓	✓
Government transfers	Unemployment benefits	✓	✓	✓	✓
	Family and child benefits	✓	✓	✓	✓
	Health and disability benefits	✓	✓	✓	✖
	Public pensions	✓	✓	✓	✓
	Other old-age and survivors' benefits	✓	✓	✓	✓
	Social assistance	✖	✓	✓	✓
	Education-related benefits	✖	✖	✓	✓
	Housing benefits	✖	✖	✓	✓
Taxes and social-security contributions	Taxes on earnings	✓	✓	✓	✓
	Social security contributions	✓	✓	✓	✓
	Taxes on capital income	•	•	✓	✓

Note: ✓ indicates complete data, • partial data, and ✖ missing data. In Belgium, certain family and child benefits are simulated. In Estonia, taxes and social contributions for the self-employed are simulated. For a detailed overview of data sources, see Annex A. For a detailed overview of income components, see Annex A.

Besides income and tax information, the data include information on people's socio-demographic characteristics, specifically their age, gender, and region of residence at the level of small regions (i.e. Territorial Level 3 (TL3) according to the OECD territorial grid) for all countries, as well as people's level of education, except for Canada. Unique household and personal identifiers allow grouping people into households or family units and tracking them over time.

The data consist of annual observations over different time periods, covering eleven years for Austria (2011-2021), eight for Belgium (2015-2022), seven for Estonia (2017-2023) and four decades for Canada (1982-2022) (see Annex A). The analysis in this paper focuses on shorter observation periods of equal length to maximise overlap across countries.

3.2. Methodological choices

Studies of income mobility face three main methodological choices (Jäntti and Jenkins, 2015[11]):

- *For how long to track people:* This paper examines people's income transitions over five years, i.e. from an *initial period* t_1 to the *final period* t_5. The income measures for the initial and final period are each constructed as averages of the annual incomes over *two* consecutive years. For example, in the case of Austria, a person's income in period t_1 is given by their average income across 2015 and 2016, while the income in period t_5 is their average income across 2019 and 2020. In other words, the analysis uses income information spanning *six* years to study income transitions over a *five*-year period. This approach, used in previous studies (Aghion et al., 2023[15]; Chetty et al., 2014[21]; Bradbury, 2011[38]), offers two key advantages: i) it smooths out transitory income fluctuations, such as exceptional capital gains, hence providing a more accurate picture of people's underlying living standards; ii) it mitigates the impact of potential measurement error in any single year. For reasons of data availability, the observation periods slightly differ across countries, always starting in the mid-2010s and concluding during, or shortly after, the COVID-19 crisis (see Table 2).[4]

- *What income variable to use:* The analysis presented in this paper largely focuses on annual disposable household income, i.e. the sum of the market income plus government transfers received by all household members, minus total taxes and social contributions paid. In Austria, Belgium and Estonia, households are defined as consisting of all individuals residing in the same dwelling, while in Canada, they refer to family units. Income is equivalised using the square root of the household size and assigned to all people living in the same household. This accounts for the sharing of resources among household members. Subsection 5.2 of the paper, which provides gender breakdowns in mobility dynamics, relies on *individual* rather than *equivalised household* disposable income.
- *What population to cover*: The available data cover nearly the entire population for Austria, Belgium and Estonia; for Canada, they consist of a large sample of approximately 20% of all tax filers (see Table 2).

  For the purposes of this analysis, these data are then further restricted to:

  - *Working-age people*, i.e. those aged between 25 to 59 years at the start of the period. This approach is in line with several previous empirical studies on income mobility (Aghion et al., 2023[15]; Guvenen, Pistaferri and Violante, 2022[39]; OECD, 2018[12]; Bradbury, 2011[38]; Auten, Gee and Turner, 2013[35]), though age cut-offs vary slightly across studies. The intention is to limit the impact of school-to-work and retirement transitions on mobility outcomes.
  - *People in households with strictly positive household disposable incomes* across all years used to compute the mobility metrics. The motivation for this restriction is that people with zero equivalised household disposable income often have arrived in the country only during the given fiscal year, while negative disposable incomes often stem from significant realised capital losses. This exclusion is also standard in the income mobility literature (Aghion et al., 2023[15]; Chetty et al., 2014[21])
  - *People with "standard" working and living arrangements*. This means, for instance, that employees of international organisations, whose income is not taxable, are excluded from the Belgian data. Those residing in non-private households (e.g., hospitals, prisons) are excluded in Austria, Belgium, and Estonia.

  Previous OECD work on income volatility has further restricted the sample to people living in households with stable composition over time (OECD, 2023[40]). This approach is particularly useful for isolating the impact of specific economic shocks (i.e., job displacement) on incomes, since changes in household composition are themselves an important driver of income variations over time. However, for this same reason, restricting the sample to those living in households with stable composition is likely to underestimate income mobility. In line with most studies on income mobility (for a comprehensive overview, see Jäntti and Jenkins (2015[11]), this paper does not apply such a restriction.

Table 2. Observation period, income variable and sample across countries

	Observation period	Income variable	Sample
Austria	t_1: 2015-16 t_5: 2019-20	Household disposable income equivalized by the square root of the household size. Households are defined as all individuals living in the same dwelling.	Individuals aged 25 to 59 at the beginning of the period who live in private households and either filed a tax declaration, were employed and/or received any federal government transfer. This represents almost 95% of the census population for the targeted age group.
Belgium	t_1: 2016-17 t_5: 2020-21	Household disposable income equivalized by the square root of the household size. Households are defined as all individuals living in the same dwelling.	Individuals aged 25 to 59 at the beginning of the period who live in private households, excluding those living in households where at least one person works in an international organization.
Canada	t_1: 2016-17 t_5: 2020-21	Household disposable income equivalized by the square root of the household size. Households are comprised of couples (married or common-law) living in the same dwelling with or without children, lone parents living with one or more children and persons living alone, living with a family to whom they are related or unrelated, or with other lone persons.	Random sample of approximately 20% of individuals aged 25 to 59 who filed a tax declaration. This represents approximately 90% of the census population for the targeted age group.
Estonia	t_1: 2017-18 t_5: 2021-22	Household disposable income equivalized by the square root of the household size. Households are defined as all individuals living in the same dwelling.	Individuals aged 25 to 59 at the beginning of the period living in private households.

4. A snapshot of income mobility patterns across countries

This section examines relative income mobility patterns, i.e., changes in people's position in the income distribution over time, for working-age people in Austria, Belgium, Canada and Estonia. The analysis confirms a key finding from earlier studies: most people experience limited income mobility over short time horizons, and mobility is particularly low for those at the bottom and top of the income distribution (Subsection 4.1). The section then applies a simple but comprehensive method for comparing income mobility patterns across countries and population groups, the rank-rank analysis. Using this metric, the analysis reveals both differences in *overall* income mobility across countries as well as in the mobility outcomes of people starting at different points of the income distribution (Subsection 4.2).

4.1. Income mobility is low for people in the bottom and top of the income distribution

Most people experience modest changes in their relative income position over five years. A simple way of illustrating this is by grouping working-age people into income deciles and then tracking their movement across deciles over time, from time t_1 to time t_5. In Austria, Belgium and Canada, nearly one-in-three people remain in the same income decile over five years; another one-in three move up or down in the income distribution, but by no more than one decile (Figure 1). Persistence is lower in Estonia, with only one-in-four people remaining in the same decile. Large movements across the income distribution are rare. In all countries, only around 10% of people move either upwards or downwards by three or more deciles over five years.

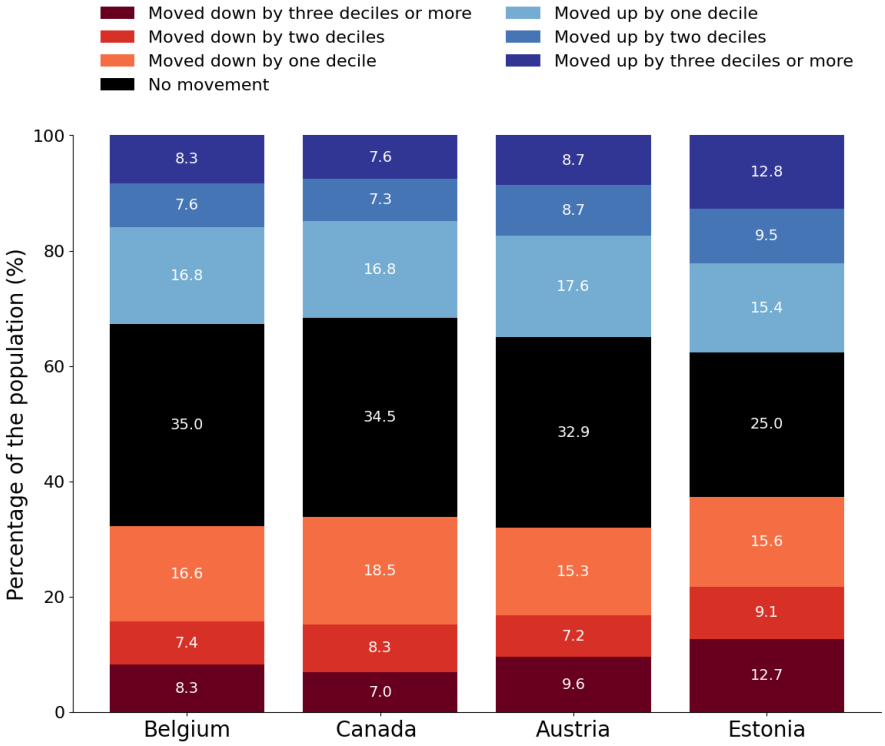
However, income mobility is far from uniform, with people in the extremes of the distribution experiencing substantially lower mobility than those in the middle. This can be illustrated with the help of transition matrices, which give an overview of people's movements across income deciles in different parts of the distribution (Figure 2). The results are similar across the four countries. In Austria, Belgium and Canada, more than half of all people who are in the bottom decile at the start of the period remain there over the five years in (in other words: the rate of "income persistence" for people in the bottom decile is over 50%). This is twice as high as for those in the middle deciles of the distribution. Persistence at the bottom is again lower in Estonia, but still high relative to the middle of the distribution. Another way of reading these numbers is that opportunities for upward mobility are limited in the bottom of the distribution: In all countries, less than 10 % of those in the bottom decile manage to climb into the upper half of the distribution over five years. At the top of the distribution, income persistence is even more pronounced: the share of those starting in the top decile who are still in that decile after five years range from 51% in Estonia to 63% in Canada.

These calculations are broadly consistent with those from previous studies on short-term income dynamics, even if results are not always strictly comparable. Aghion et al. (2023[15])'s study of income mobility in France, which relies on a similar methodology, serves as a useful benchmark. Using also tax record data and a similar sample,[5] the authors calculate a rate of income persistence in the bottom decile over a five-year period of

54%, a value similar to that presented for Austria, Belgium, and Canada in this paper. Persistence in the top decile is higher in France than in the four countries included in this paper, at 76%.

Figure 1. Almost two-in-three people stay in the same or a neighbouring income decile over five years

People's movements across income deciles from t_1 to t_5, in percentages

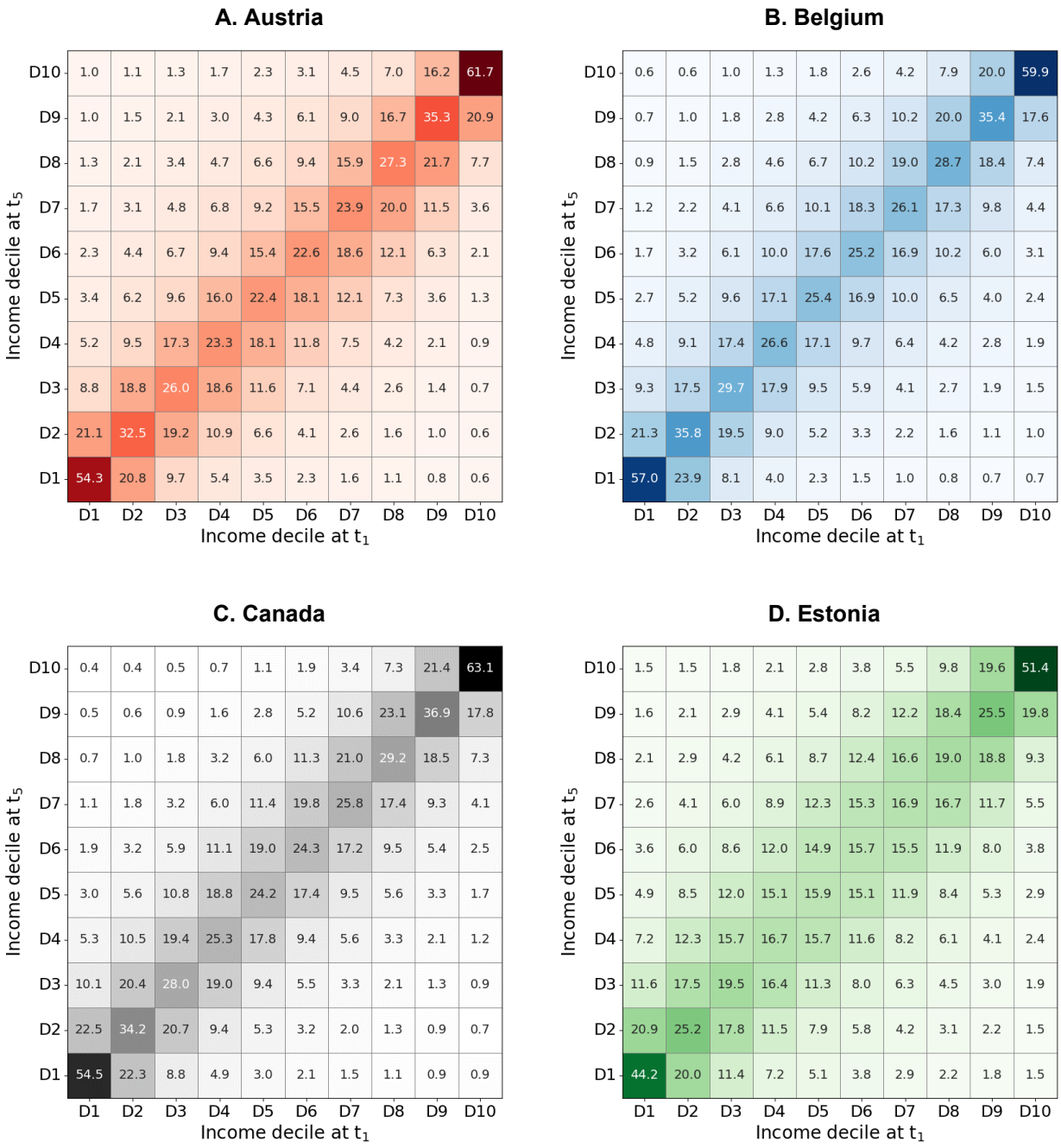


Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. Countries are sorted by the level of income persistence ("no movement") in descending order.
Source: OECD calculations based on national administrative microdata and extractions from administrative data provided by Statistics Canada. For a detailed overview of data sources see Annex A.

Other studies, using different methodologies, have pointed at the limited degree of short-term income mobility across the distribution. For example, using the four-year longitudinal panel from the EU-SILC, Alves and Martins (2012[22]) present average persistence rates across income deciles of around 28% in Portugal and 31% across EU countries. This is below the average rates found in this paper for Austria (33%), Belgium (35%) and Canada (35%), but above that for Estonia (25%). Previous OECD work (OECD, 2018[12]) finds an average income persistence rate over four years of around 50% across OECD countries, calculated across income *quintiles*. Again, this is broadly in line with the persistence rates across income *deciles* shown in Figure 2. In line with this paper, the report documents comparable levels of income mobility in Austria, Belgium, and Canada, and greater mobility in Estonia. However, greater *relative* mobility is not necessarily positive. In Estonia, for example, it may partly reflect more frequent income shocks as a result of weaker employment protection and significant income losses following divorce (OECD, 2023[40]; 2018[12]). These factors contribute to a greater movement of people down and up the income distribution.

Figure 2. Income persistence is about twice as high in the bottom and top of the income distribution as in the middle

Transition matrix of income deciles from t_1 to t_5



Reading guidance: D1 and D10 are the lowest and highest income deciles. The figure shows the share of all people in each starting decile at time t_1 that move to specific income decile at time t_5. For instance, in Austria, 54.3% of those starting in the lowest income decile remain in the lowest decile at time t_5, whereas 0.6% of those starting in the lowest decile reach the highest decile over the same period.

Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2.

Source: OECD calculations based on national administrative microdata and extractions from administrative data provided by Statistics Canada. For a detailed overview of data sources see Annex A.

Previous survey-based analyses have also documented the greater income persistence for people in the tails of the distribution (Alves and Martins, 2012[22]; Hungerford, 2011[41]), notably at the top – i.e. "sticky floors and ceilings" (OECD, 2018[12]). However, the reported disparities in income persistence between the tails and the middle of the distribution tend to be lower in previous survey-based studies than those documented in this paper. This could be due to differences in sample selection,[6] but may also reflect the lower quality of some sources of survey data, particularly in terms of their coverage of top incomes (Ravallion, 2022[13]; Bartels and Waldenström, 2021[31]).

4.2. Comparing overall income mobility across countries – a rank-rank analysis

The transition matrices shown in the previous subsection are a simple and intuitive way of displaying people's movements across the income distribution over time, but they do not lend themselves well to more systematic statistical analysis. One reason is that they cannot be easily summarised in a single metric, which could serve for comparing the overall level of mobility across countries, or between groups *within* countries. Working with transition matrices also becomes substantially less practical when focusing on more granular income groups, e.g. when "zooming in" from income deciles to *percentiles*.

The remainder of this paper relies on an alternative approach for measuring and summarising people's changes in income positions over time: the rank-rank analysis. As other mobility metrics used in the literature, such as Fields and Ok's and Shorrocks' indices (see Section 2. for a discussion), the rank-rank analysis can provide an overall measure of mobility, and it can be computed across different population groups. However, unlike other methods, it provides immediate information of mobility outcomes across the entire income distribution and is much easier to interpret for non-technical audiences.

In a nutshell, rank-rank analysis sorts individuals by their position in the income distribution at two points in time (here again: t_1 and t_5), and then compares these two ranks. A simple graphical representation is given in Figure 3, which plots, for each percentile, the initial income rank (at t_1) and average final income rank (at t_5) for working-age people in Belgium. This approach has been previously used to measure intergenerational mobility (Chetty et al., 2014[21]) as well as income dynamics over the life course (Aghion et al., 2023[15]).

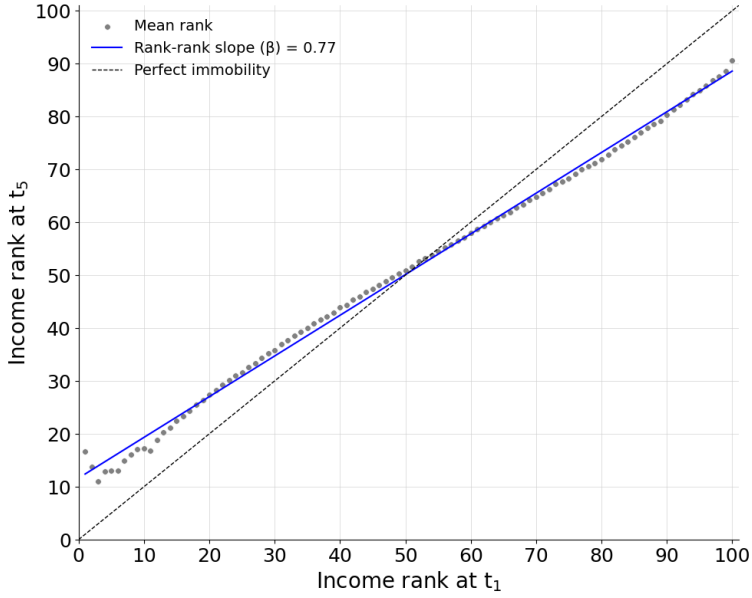
An advantage of this approach, as illustrated in Figure 3, is that it allows capturing both:

- ***Changes in people's income position across the distribution***. These are illustrated by the average rank at t_5 for individuals starting in a specific rank at t_1. For example, in Belgium, people who are initially in the 10th percentile moved up, on average, to the 17th percentile over the five-year observation period. Meanwhile, those in the 90th percentile move down on average, to the 80th percentile over the same period.
- ***The overall level of income mobility.*** It is given by the slope of the linear relationship between people's initial and final ranks. A 45°-line (i.e. the line with a slope coefficient of 1) indicates perfect *income persistence*, with people staying on average in the same rank in which they started. By contrast, a horizontal line (slope coefficient of 0) would represent perfect *mobility*, where people's final rank is on average independent of their starting rank.

For a more technical description, see Box 1.

Figure 3. A rank-rank analysis for Belgium

Relationship between people's income rank at time t_1 and the average income rank at time t_5



Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. The grey dots represent the mean observed rank at time t_5 for individuals in each rank at time t. The β-coefficient measures the average degree of persistence in individuals' income ranks over time, estimated using a linear regression model (see Box 1). The blue line depicts the expected income rank according to this model, while the dashed black 45°-line illustrates a scenario of perfect income persistence.
Source: OECD calculations based on national administrative micro data and extractions from administrative data provided by Statistics Canada. For a detailed overview of data sources see Annex A.

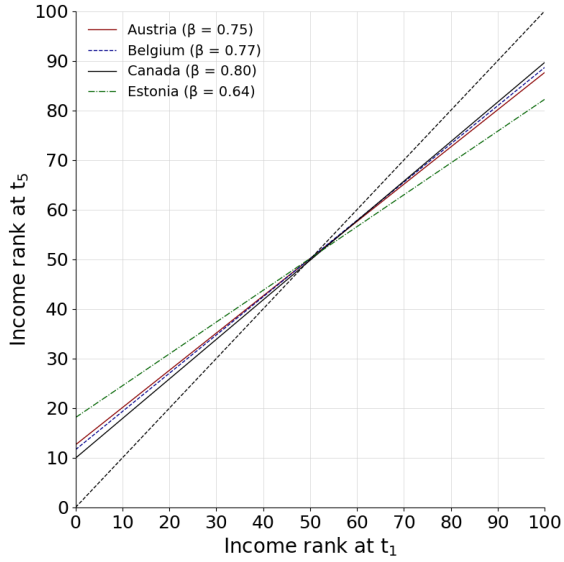
The results from the rank-rank analysis point to different levels of short-term income mobility across countries, with β-coefficients ranging from 0.64 in Estonia (lowest income persistence, i.e. greatest overall mobility) to 0.8 in Canada (lowest income mobility; Figure 4, Panel A). Aghion et al,. (2023[15]) document a greater rank-rank persistence over five years in France (0.76), though this difference may reflect slightly different methodological choices (see footnote 5). While these numbers may be difficult to interpret intuitively, disparities in mobility patterns across countries become clearer when examining the average change in income rank for people starting at different points in the income distribution. For instance, in Estonia, people starting in the 20th percentile improve their rank, on average, by 12 percentiles after five years, compared to only a 5-percentile increase in Canada (Figure 4, Panel B).

For all countries, the analysis reveals a pattern of people moving, on average, towards the middle of the income distribution (i.e., "mean reversion"). Those starting with lower incomes experience greater upward mobility, while those starting with higher incomes face stronger downward mobility. This pattern does not contradict the evidence from the transition matrices, which showed greater income persistence at the extremes of the distribution (Figure 2). Transition matrices show the *share of people* moving across the income distribution from each starting income group, while the rank-rank analysis shows *people's mean final rank* for those starting in a given rank. In the lowest and highest income deciles, fewer people move, but they move only in one direction – upward for the bottom decile and downward for the top decile. In contrast, in the middle-income deciles, more people move, but upward and downward movements balance each other out, resulting in smaller average rank changes. This higher income persistence at the extremes is also evident in the rank-rank analysis across countries, as the pattern of mean reversion flattens slightly in the ends of the distribution.

Figure 4. Relative income mobility across countries: results from rank-rank analysis

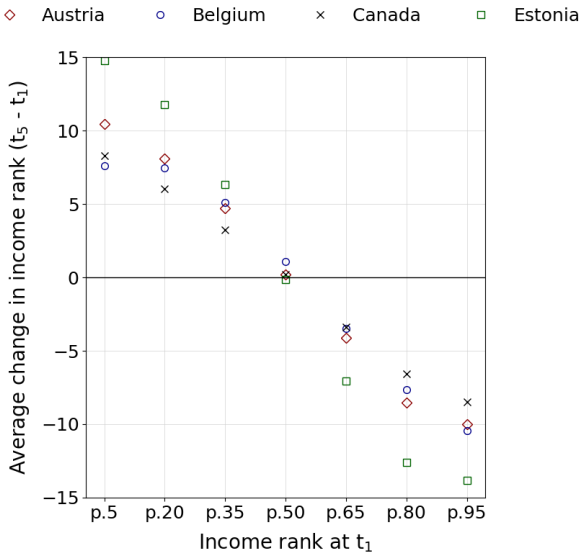
A. Overall relative mobility of the distribution

Rank-rank slope of people's income rank at time t_1 and the average income rank at time t_5



B. Relative mobility at different points

Average change in income rank between time t_1 and time t_5 at different income ranks at time t



Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. The rank-rank slope coefficients give the degree of persistence in individuals' income ranks over time estimated through a linear regression model, see Box 1.

Source: OECD calculations based on national administrative microdata and extractions from administrative data provided by Statistics Canada. For a detailed overview of data sources see Annex A.

Box 1. A detailed description of the rank-rank analysis

The rank-rank approach relies on the observation that the relationship between individuals' ranks at the beginning and the end of the observation period is quasi-linear, as shown for Belgium in Figure 3. Their association can therefore be captured using a linear regression model (Aghion et al., 2023[15]; Chetty et al., 2014[21]):

$$R_{i,t_5} = \alpha + \beta R_{i,t_1} + \varepsilon_i$$

where R_{i,t_1} and R_{i,t_5} are an individual's rank in the initial and final periods, t_1 and t_5; β is a regression coefficient capturing the association between the starting and the final ranks; and ε_i is an error term accounting for other factors related to individuals' final ranks.

Three insights can be derived from this model:

- **Relative mobility (β):** The β-coefficient represents the degree of persistence in individuals' ranks over time. A higher β indicates greater persistence and therefore lower relative mobility, while a lower β suggests higher mobility. Hence, β serves as a summary metric for people's relative mobility across the entire income distribution. Graphically, it corresponds to the slope of the fitted line in the rank-rank plot.
- **Expected final rank ($\hat{R}_{i,t_5} = \alpha + \beta R_{i,t_1}$).** The term $(\alpha + \beta R_{i,t_1})$ captures the expected final rank for individuals with a given initial rank R_{i,t_1} as predicted by the model. It corresponds to a specific point on the fitted line in the rank-rank plot. For example, in Belgium, the regression predicts that an individual starting off in the 10th percentile is expected to move into the 20th percentile over five years.
- **People's excess mobility across the distribution ($|R_{i,t_5} - R_{i,t_1}| - |\hat{R}_{i,t_5} - R_{i,t_1}|$).** The difference between the absolute observed change in rank $|R_{i,t_5} - R_{i,t_1}|$ and the absolute predicted change in rank $|\hat{R}_{i,t_5} - R_{i,t_1}|$ reflects how income mobility deviates from the expected income mobility across the distribution. A positive difference indicates that, relative to their starting position, people moved (upward or downward) by more than the model predicted, while a negative difference means that they were less mobile than expected. For example, in Belgium, people in the bottom of the distribution have lower upward mobility than one would expect given the overall level of income mobility across the entire distribution.

5. Who climbs the income ladder? Disparities in mobility outcomes across socio-demographic groups

The rank-rank method presented in the previous section allows zooming in on the mobility patterns of different socio-demographic groups to provide evidence on *who* experiences more, or less, favourable mobility outcomes. This section provides breakdowns of the income dynamics by age group, gender, educational attainment and place of residence. To better capture gender divides in income mobility, the analysis by gender relies on *individual*, as opposed to, *equivalised household* disposable incomes. The analysis shows that young people experience larger changes in their income positions over time but not always better mobility outcomes, i.e., greater upward and more limited downward mobility, than older people (Subsection 5.1); men exhibit greater upward mobility than women, particularly in the bottom half of the income distribution (Subsection 5.2); people with tertiary education benefit from better mobility outcomes, leading to a stronger "sorting" of the income distribution by level of educational attainment over time (Subsection 5.3); and relatively large differences in mobility patterns between metropolitan and non-metropolitan regions in Canada and Estonia, but only marginal disparities in Austria and Belgium (Subsection 5.4).

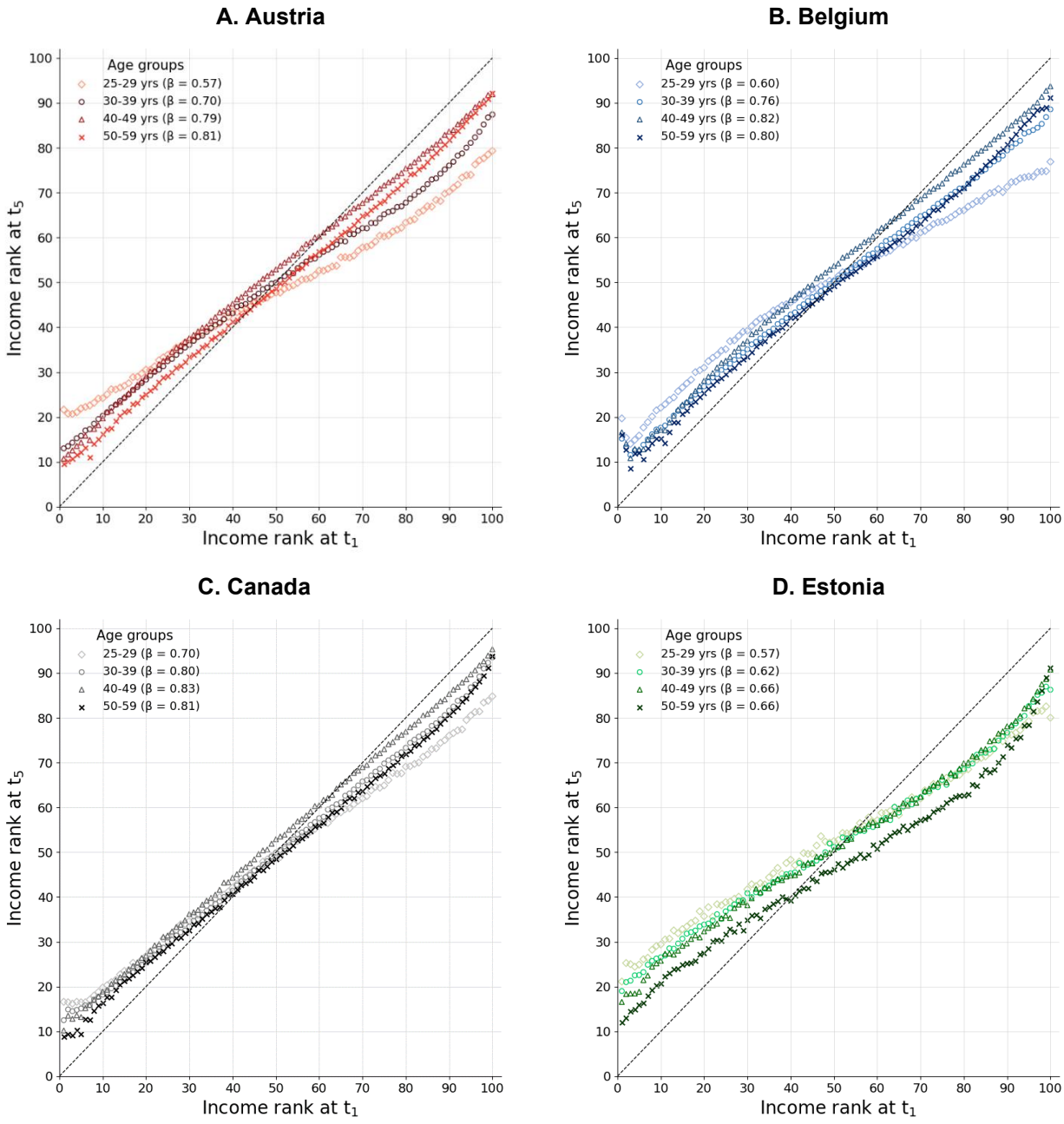
5.1. Young people experience the largest changes in their income position, but in most countries those in their 40s have the most favourable mobility outcomes

Young people experience larger changes in their income position than older generations. In all four countries included in the analysis, those aged 25 to 29 at the beginning of the period exhibit significantly greater income mobility over five years than other age groups. This is evidenced by lower rank-rank slopes, i.e. a "flatter" relationship between people's income positions at times t_1 and t_5 (Figure 5). This greater mobility likely reflects key transitions taking place at that age, such as young people leaving the parental home and entering the labour market. Income mobility then declines substantially once people reach their 30s and becomes even more limited in their 40s and onwards. These findings align with those produced by Aghion et al. (2023[15]) for France using similar data. OECD work demonstrates that older people face greater barriers to job mobility (OECD, 2024[42]) and that their earnings mobility is lower (OECD, 2025[43]), which can translate into lower income mobility.

Greater income mobility for young people does not imply that they generally enjoy *better mobility outcomes* than older cohorts. While it is true that young people in the lower parts of the income distribution record on average larger relative income gains over five years, this is mirrored by on average larger relative income losses among those in the top. Overall, in Austria, Belgium and Canada, people in their 40s achieve a higher income rank than young people after five years across most of the income distribution. Particularly in the upper half of the distribution, young people experience significant declines in income rank, while older generations exhibit strong rank persistence. The picture is somewhat different though in Estonia, where young people experience mobility outcomes similar to those of prime-aged adults, and much better outcomes than older cohorts.

Figure 5. Income mobility declines with age

Relationship between people's income rank at time t_1 and the average income rank at time t_5, by age group.



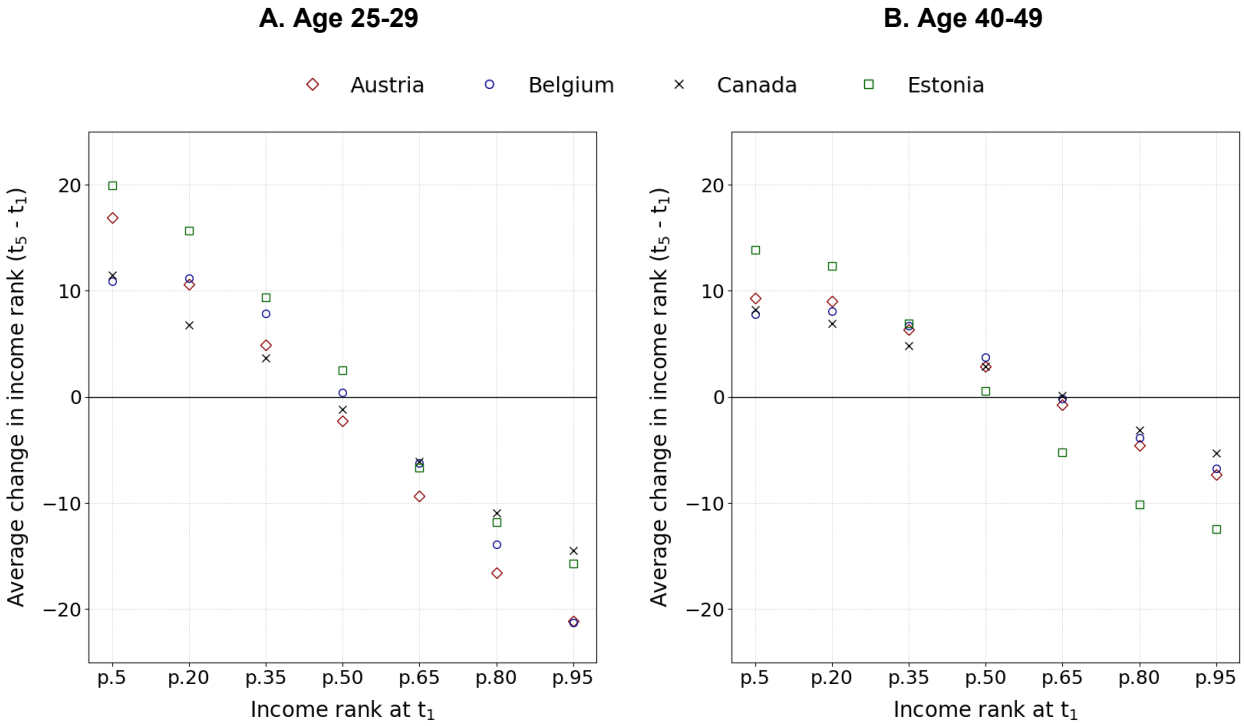
Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. The β-coefficients give the degree of persistence in individuals' income ranks over time estimated through a linear regression model, see Box 1.

Source: OECD calculations based on national administrative microdata and extractions from administrative data provided by Statistics Canada. For a detailed overview of data sources see Annex A.

Differences in mobility outcomes across countries are significantly more pronounced for young people than for older cohorts. For example, people in their late 20s starting in the 35th percentile of the income distribution move up, on average, by 10 percentiles in Estonia, compared to only 3 percentiles in Canada (Figure 6, Panel A). For those in their 40s mobility outcomes for a given rank are more similar across countries (Figure 6, Panel B). This may reflect that young people's school-to-work transition, the age at which they typically leave their parental home, and their sources of income may differ more substantially across countries than later-life employment and income trajectories.

Figure 6. Cross-country disparities in mobility outcomes are particularly large for young people

Average change in income rank between time t_1 and time t_5 at different income ranks at time t_1, by age group



Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2.
Source: OECD calculations based on national administrative microdata and extractions from administrative data provided by Statistics Canada. For a detailed overview of data sources see Annex A.

These results highlight the importance of lifecycle effects for income mobility. To better isolate differences in mobility patterns across other demographic characteristics – such as gender, educational attainment, or place of residence – independently of age effects, the remainder of the analysis in this paper therefore controls for age. This is done by ranking people's income *within their own age group* (i.e. 25-29, 30-39, 40-49, 50-59) before comparing starting and final ranks. The resulting rank-rank slopes give *within-cohort* mobility patterns (Aghion et al., 2023[15]).

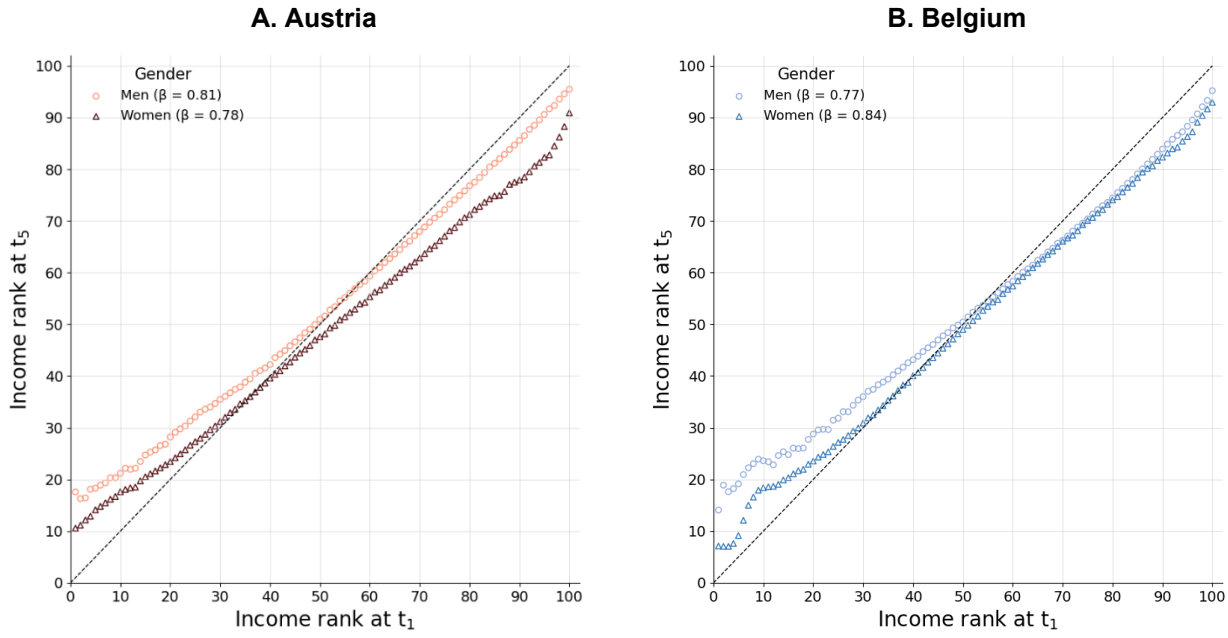
5.2. Women find it harder than men to climb the income ladder

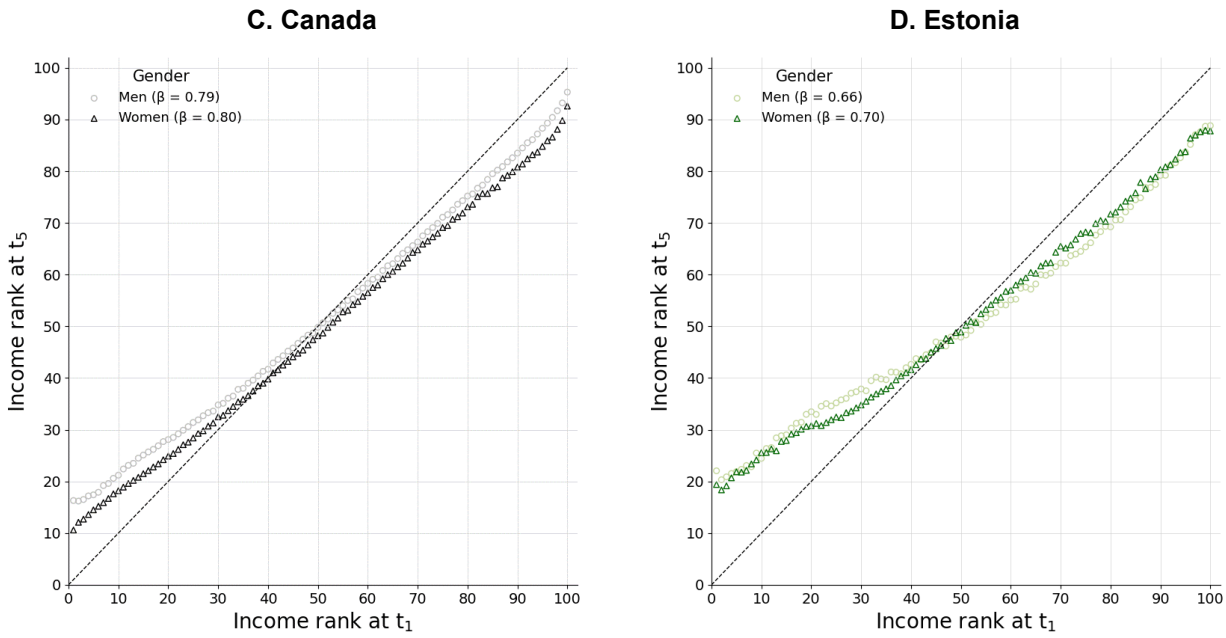
A somewhat different approach is required when studying gender disparities in income mobility. Thus far, the analysis has relied on a household-level income measure, equivalised by the size of the household. This assumes that people living in couples equally share their income. Under this assumption, observed gender differences in income mobility are small and reflect mainly disparities between men and women living alone (see 6. Annex C for an example for Belgium). However, in reality couples often do not share their resources equally, with evidence suggesting that men use a greater share of the joint income for private consumption than women (Chiappori and Meghir, 2015[44]; European Commission, Eurostat and Ponthieux, S., 2013[45]; Lise and Seitz, 2011[46]). Moreover, even for individuals living in couples, personal income trajectories remain important, notably because they may determine the individual financial risk faced in case of separation.

When studying the dynamics of *individual*, as opposed to *equivalised household*, disposable income, women display less favourable mobility outcomes than men. Here, individual incomes have been constructed as the sum of all personal income from labour, capital and individual-level benefits and taxes, plus a pro-rata share of household-level benefits and taxes, when these were identifiable in the data. In Austria, Belgium and Canada, men in any given income rank reach a systematically higher rank after five years than women in the same rank (Figure 7). The gender gap in income mobility is largest in Austria, while in Belgium and Canada it is pronounced particularly in the bottom half of the income distribution (see also Figure 8). In Estonia, income dynamics differ, with the gender gap apparent in the lower half of the distribution reversing in the upper half.

Figure 7. Men enjoy more favourable mobility outcomes than women

Relationship between people's income rank at time t_1 and the average income rank at time t_5, by gender.



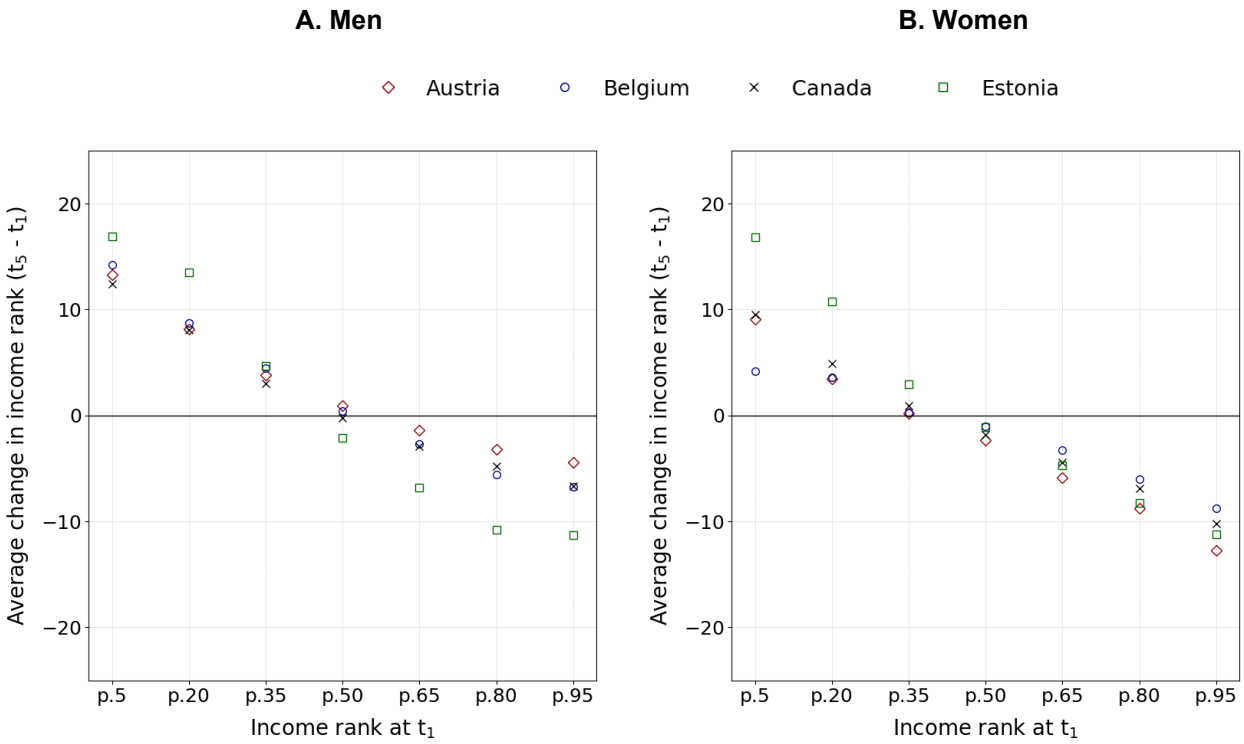


Note: Results are for individual disposable incomes across working-age individuals with strictly positive personal and household disposable incomes. To compute individual disposable incomes, household-level benefits (such as family benefits) have been allocated equally to all household members. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. The β-coefficients give the degree of persistence in individuals' income ranks over time estimated through a linear regression model, see Box 1. The income ranks presented in this figure were first computed separately by age group and then averaged to control for life cycle effects.
Source: OECD calculations based on national administrative microdata and extractions from administrative data provided by Statistics Canada. For a detailed overview of data sources see Annex A

These gender gaps in income mobility likely reflect the weaker labour market attachment of women, and the higher rates of part-time work (OECD, 2017[47]; 2018[48]), which may adversely affect opportunities for upward mobility. Indeed, the patterns observed among the four countries – with Austria exhibiting the largest gender disparities in income mobility, and Estonia showing only minimal differences – broadly mirror gender gaps in employment (OECD, 2022[49]). Gender segregation across occupations may also play a role, with women being overrepresented in low-productivity sectors with slower earnings progression (Carranza, Das and Kotikula, 2023[50]).

Figure 8. Gender disparities in mobility outcomes across countries are more pronounced in the bottom of the distribution

Average change in income rank between time t_1 and time t_5 at different income ranks at time t_1, by gender



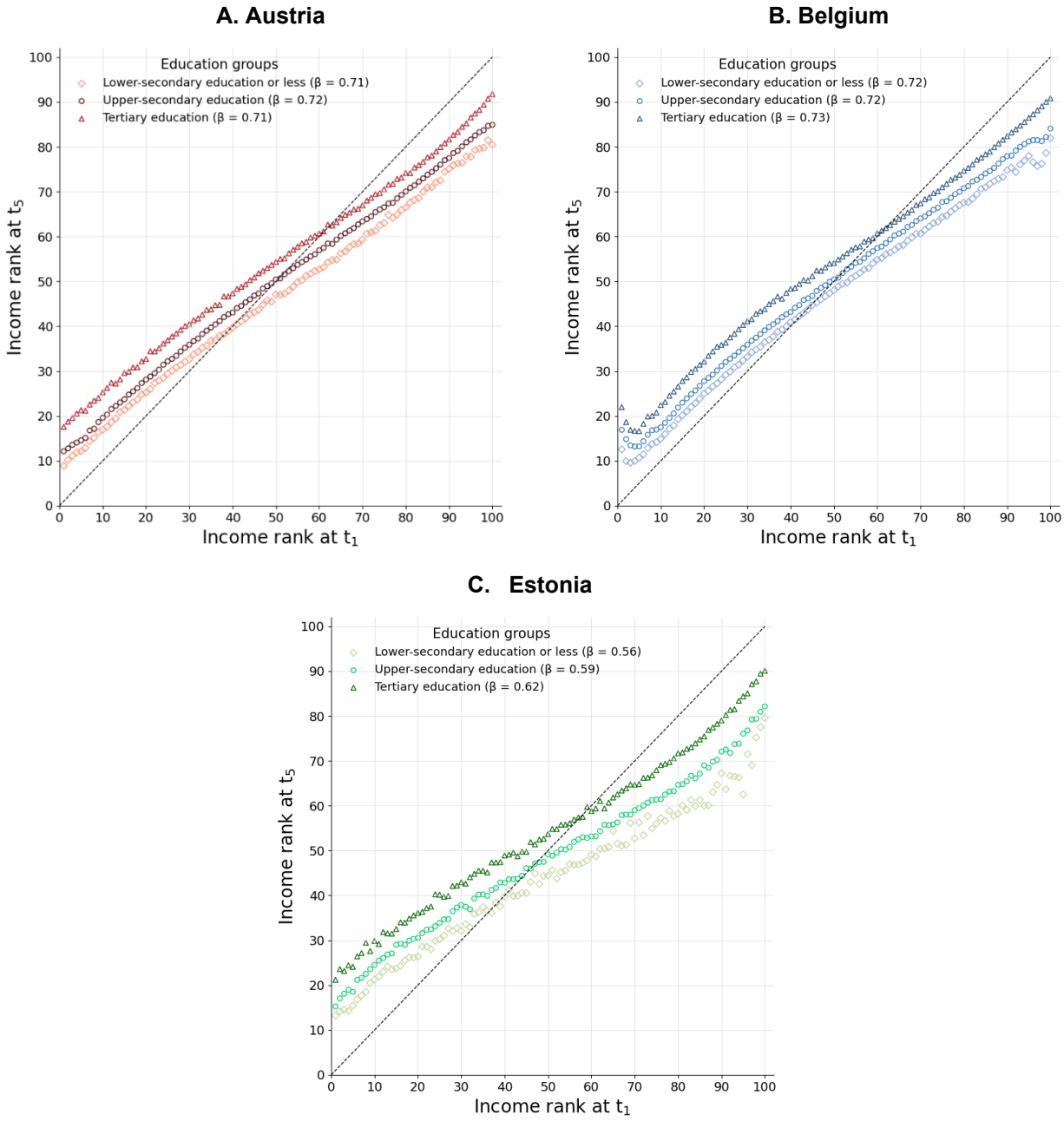
Note: Results are for personal disposable incomes across working-age individuals with both strictly positive personal and household and disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. The income ranks presented in this figure were first computed separately by age group and then averaged to control for life cycle effects.
Source: OECD calculations based on national administrative microdata and extractions from administrative data provided by Statistics Canada. For a detailed overview of data sources see Annex A.

5.3. People with tertiary education benefit from better mobility outcomes

People who have completed tertiary education experience more favourable mobility outcomes than those with lower educational attainment. In Austria, Belgium and Estonia – the three countries for which income data by educational attainment could be made available for this project – people starting in any given income rank reach systematically higher income ranks after five years if they have completed tertiary education (Figure 9). The mobility gap is greater when comparing people with tertiary to those with only upper-secondary education, than it is when comparing upper-secondary graduates to those with at-most a lower-secondary qualification.

Figure 9. People with a higher level of education experience more favourable mobility outcomes

Relationship between people's income rank at time t_1 and the average income rank at time t_5, by educational attainment



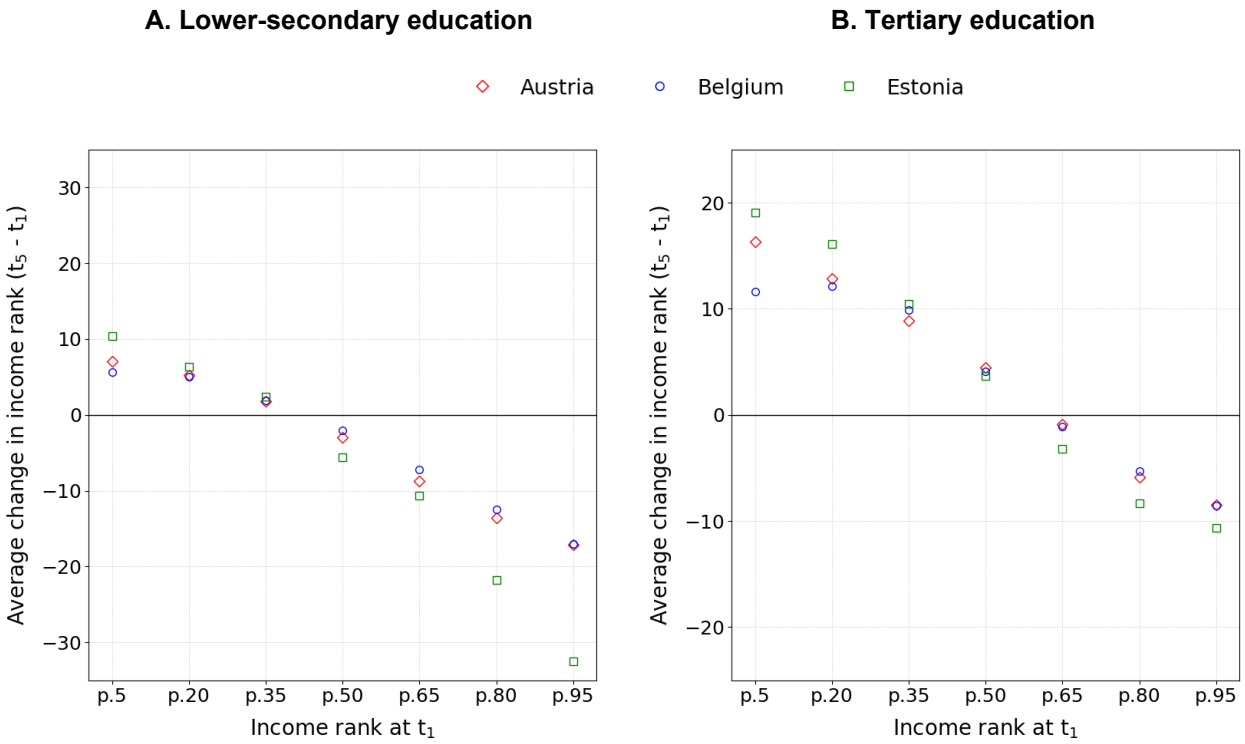
Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. The β-coefficients give the degree of persistence in individuals' income ranks over time estimated through a linear regression model, see Box 1. The income ranks presented in this figure were first computed separately by age group and then averaged to control for life cycle effects. No data on incomes by level of educational attainment could be made available for Canada.
Source: OECD calculations based on national administrative data. For a detailed overview of data sources see Annex A.

These results imply an increasing "sorting" of the income distribution by level of educational attainment over time, as people with tertiary education gradually advance at the relative expense of those with lower

educational attainment. For example, in all countries, people with tertiary education in the middle of the income distribution improve their relative position over five years, while those in the same rank with only lower-secondary education experience a downward shift (Figure 10). This effect is separate from a changing educational *composition* of the population over time, with people's overall level of education rising. The pattern is particularly pronounced in Estonia, where people with lower-secondary education in the upper half of the income distribution experience large declines in their relative income position.

Figure 10. People with lower educational attainment suffer large drops in their income position

Average change in income rank between time t_1 and time t_5 at different income ranks at time t, by level of educational attainment



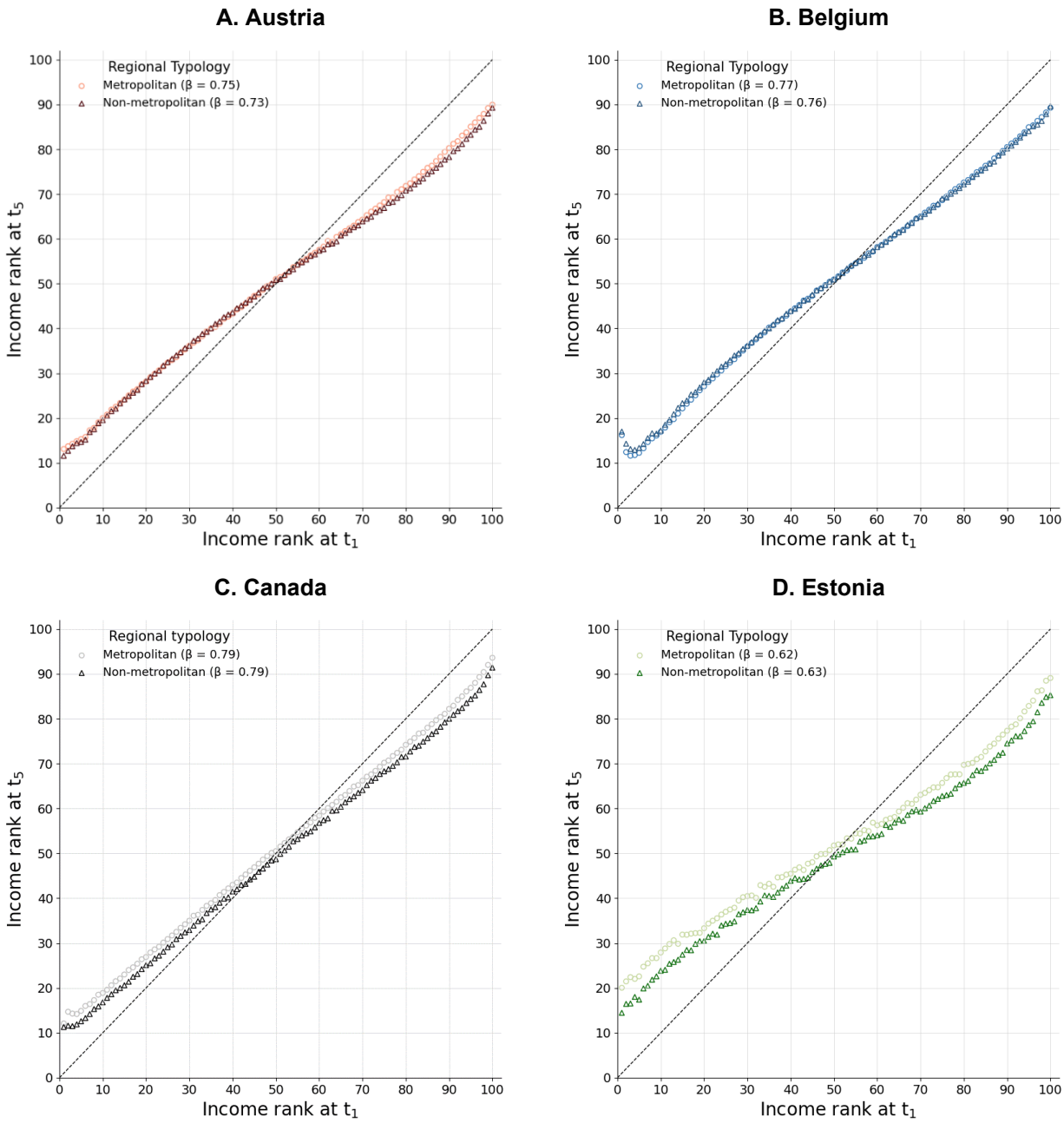
Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. The income ranks presented in this figure were first computed separately by age group and then averaged to control for life cycle effects. No data on incomes by level of educational attainment are available for Canada.
Source: OECD calculations based on national administrative data. For a detailed overview of data sources see Annex A.

5.4. In some countries, people in metropolitan regions experience better mobility outcomes

In some countries, people living in metropolitan regions experience better income mobility outcomes than those in non-metropolitan regions.[7] For any given income rank at the start of the period, people in Canada and Estonia who live in metropolitan regions tend to reach a higher income rank after five years than those in non-metropolitan regions (Figure 11). In contrast, no significant differences in income mobility between metropolitan and non-metropolitan regions are observed in Austria and Belgium.

Figure 11. In Canada and Estonia, people in metropolitan regions experience better mobility outcomes

Relationship between people's income rank at time t_1 and the average income rank at time t_5, by type of regions



Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. The β-coefficients give the degree of persistence in individuals' income ranks over time estimated through a linear regression model, see Box 1. The income ranks presented in this figure were first computed separately by age group and then averaged to control for life cycle effects.
Source: OECD calculations based on national administrative data. For a detailed overview of data sources see Annex A.

Several factors may explain these divergent patterns. First, they could reflect broader regional inequalities. Previous OECD work highlights that Canada has some of the largest regional disparities in access to

essential services among OECD countries (Almeida et al., 2024[51]), and also displays substantial regional gaps in disposable household income (Königs et al., forthcoming[52]). Similarly, Estonia shows a large difference in GDP per capita between metropolitan and non-metropolitan regions (OECD, 2023[53]). Second, Austria and Belgium are comparatively densely populated and benefit from tight transport networks, which might enhance connectivity and help equalise opportunities for income advancement across regions. Finally, the socio-demographic composition of metropolitan and non-metropolitan areas may differ across countries, which could explain disparities in regional income mobility outcomes. The overall *level* of income mobility (as measured by the slope coefficient β) is comparable for people across both types of regions in all countries.

6. Conclusion

This paper represents the first output from an OECD initiative to construct an infrastructure for exploiting national administrative microdata on household incomes for cross-country analysis of income mobility. Building on earlier survey-based OECD work on income mobility presented in *A Broken Social Elevator* (OECD, 2018[12]) and a recent study of the geography of income inequalities based on indicators derived from administrative data (Königs et al., forthcoming[52]), this paper presents first results on people's short-term income mobility in four countries: Austria, Belgium, Canada, and Estonia. The analysis follows the methodological approach used by Aghion et al. (2023[15]) in their study of income dynamics using administrative microdata for France.

While still limited in scope, the paper illustrates the large potential of administrative microdata for cross-country analysis of income dynamics. It starts by giving an overview of aggregate income mobility in the four countries over a five-year period. The results confirm a key result from earlier survey-based studies, the existence of "sticky floors and ceilings" (OECD, 2018[12]): income persistence is higher at the bottom and the top of the distribution. Exploiting the granularity of the administrative microdata using rank-rank analysis, the paper then "zooms in" to provide more detailed evidence on patterns of income mobility across the entire distribution for different socio-demographic groups. The main results are that: young people experience larger changes in their income positions, but not necessarily better mobility outcomes, than older generations; women exhibit weaker upward mobility than men, particularly in the bottom half of the distribution; people with a tertiary degree on average move up the income ladder, at the expense of those with lower educational attainment; and in Canada and Estonia – countries with relatively large geographic inequalities and low population density – people living in metropolitan regions show more favourable income mobility, while in Austria and Belgium the disparities in income mobility between metropolitan and non-metropolitan regions are quite marginal.

This paper serves as a first step towards a more comprehensive research agenda for cross-country work on income mobility using register-based data. Indeed, there is potential to build on and extend the work carried out for this paper along several dimensions:

First, the analysis could be extended to several OECD countries. A by-product of this paper has been identifying over a dozen OECD countries where register-based microdata on household incomes are available for sufficiently long time periods. This includes Australia, Greece, Iceland, the Netherlands, New Zealand, the Nordic countries, Spain and the United States. In several cases, data access is limited to researchers affiliated with national institutions, meaning that further extensions would require collaboration with national experts. This model has proven successful in OECD work using linked employer-employee administrative data (see endnote 1).

Second, this new infrastructure could become an invaluable tool for cross-country analysis on a broad range of topics of policy relevance, including:

- Bottom-income persistence, low-wage work, and the role of taxes and benefits in promoting, or impeding, upward mobility;
- The impact of life events, such as divorce, childbirth, and job loss, on people's income trajectories, and the effectiveness of social protection systems in mitigating income shocks at individual and household level;

- The labour market and income trajectories of specific population groups, including young people, workers nearing retirement age, people with migration background, and workers in regions affected by structural change;
- The evolution of income inequalities, including the rising pressures on the (lower) middle class, and growing inequalities between generations; and
- The causal evaluation of the impact of specific labour market or social policy reforms on disposable household incomes.

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Annex A. Detailed overview of data sources

The analysis in this paper relies on one or several merged databases for each country (Table A.1).

Table A.1. Detailed data sources

Country	Years with merged data	Data sources
Austria	2011-2021	LUE - Integrierte Lohn- und Einkommensteuerstatistik (LUE - Integrated Wage and Income Tax Statistics) AEST REGZ - Abgestimmte Erwerbsstatistik und Registerzählung (AEST REGZ - Coordinated Employment Statistics and Register Census).
Belgium	2015-2022	Administrative Disposable Income (ADI) database. Demobel Belgian census
Canada	1982-2022	Longitudinal Administrative Databank (LAD)
Estonia	2017-2023	EUROMOD-SILC

Annex B. Detailed overview of income components covered across countries

Table B.1. Coverage of income components

Disposable household income components		Austria	Belgium	Canada	Estonia
Market income	Employment and self-employment income	✓	✓	✓	✓
	Rents from property and land	✓	Partial	✓	✓
	Capital income (property rents, realized capital gains, dividends, interests and life insurance payments)	Partial Capital gains from securities, dividends and interests from savings accounts are taxed at source and are generally not reported in personal income tax returns, unless assets are held abroad. Rental income and capital gains from the sale of real estate, when not exempt, are fully captured in the data.	Partial Dividends and interests from savings accounts are taxed at source and do not need to be declared in personal income tax returns. However, they are generally reported voluntarily to benefit from tax exemptions. Most capital gains are not taxed in Belgium. Rental income from professional use is fully captured. Rental income from private housing is not reported but imputed based on cadastral income.	✓	✓
	Private voluntary and occupational pensions	Partial Income from occupational pensions is generally taxed at source and does not need to be reported in personal income tax returns. Voluntary private pensions are also typically taxed at source; however, reporting is required in some cases, particularly for annuity contracts and foreign pension products.	Partial Income from occupational and voluntary pensions is generally taxed at source. Reporting obligations depend on the type of contract. Lump-sum payments are typically taxed once at the time of payment and are not reported annually. Annuity payments are taxed on their income portion and must be reported each year in the personal income tax return.	✓	✓
	Mandatory inter-household transfers received	✓	✓	✓	✓

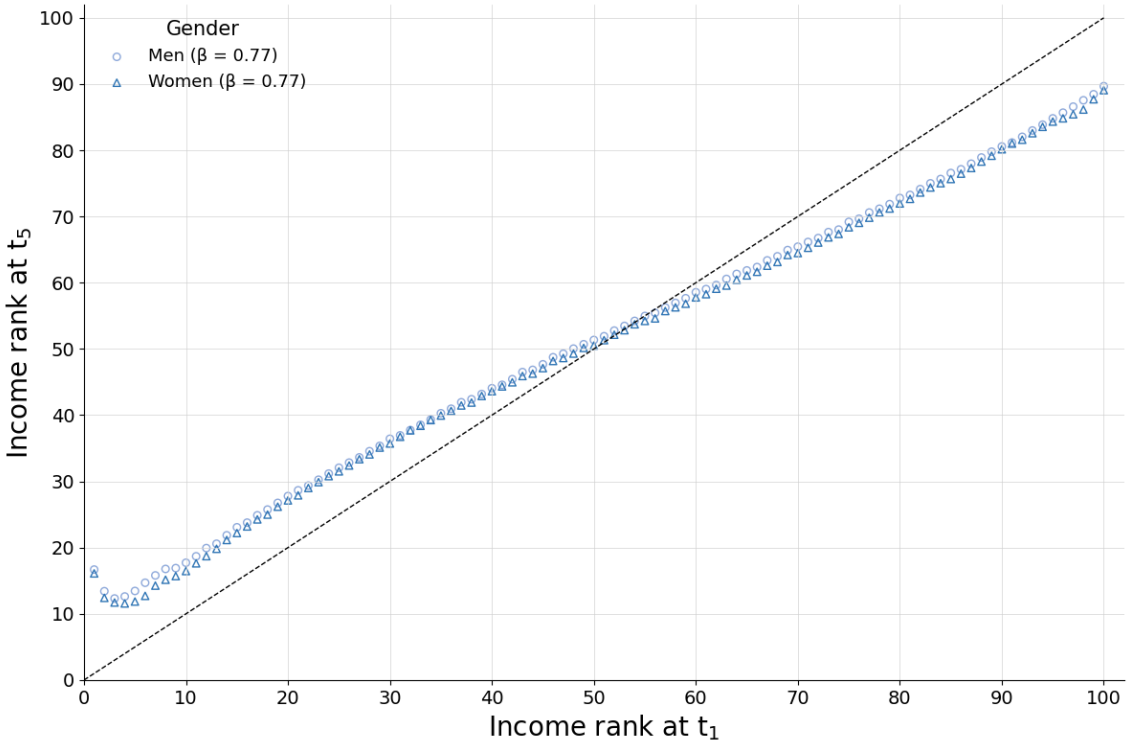
	Mandatory inter-household transfers received	Partial Data on mandatory inter-household alimonies paid are missing, but tax deductions for these transfers are considered when computing equivalised disposable incomes.	✓	✓	✓
Government transfers	Unemployment benefits	✓	✓	✓	✓
	Public pensions	✓	✓	✓	✓
	Family and child benefits	✓ Simulated based on household type	✓	✓	✓
	Health and disability benefits	✓	✓	✓	✖
	Education-related benefits	✖	✖	✓	✓
	Social assistance	✖	✓	✓	✓
	Housing benefits	✖	✖	✓	✓
	Old-age and survivors' benefits	✓	✓	✓	✓
Taxes and social-security contributions	Taxes on earnings	✓	✓	✓	✓ Simulated for the self-employed
	Social security contributions		✓	✓	✓ Simulated for the self-employed
	Taxes on capital income	Partial Taxes from capital income and private pensions taxed at the source are generally not included.	Partial Taxes from capital income and private pensions taxed at the source are generally not included.	✓	✓

Annex C. Gender gap in income mobility in equivalised household disposable incomes

Gender differences in mobility in equivalised household disposable incomes are relatively small and primarily reflect disparities between men and women living alone, as illustrated by the case of Belgium (Figure A C.1).

Figure A C.1. There is no gender gap in mobility in equivalised household disposable income

Relationship between people's income rank at time t_1 and the average income rank at time t_5, by gender



Note: Results are for equivalised disposable household incomes across working-age individuals in households with strictly positive disposable incomes. Income measures at time t_1 and time t_5 are each constructed as averages of the annual incomes over two consecutive years, as specified in Table 2. The β-coefficients give the degree of persistence in individuals' income ranks over time estimated through a linear regression model, see Box 1. The income ranks presented in this figure were first computed separately by age group and then averaged to control for life cycle effects.
Source: OECD calculations based on national administrative data. For a detailed overview of data sources see Annex A.

Notes

[1] Some initiatives use administrative data for cross-country analysis of workers' *earnings* dynamics. The OECD project LinkEED 2.0 exploits linked employer-employee data from social-security and tax records, and in some cases mandatory employer surveys, which are being analysed through a network of researchers at universities, research institutes and government institutions. A different project, the Global Repository of Income Dynamics (GRID) led by academics from Minnesota, Princeton, and Stanford, collects primarily social security data, with analysis focusing mostly on gross earnings dynamics (Guvenen, Pistaferri and Violante, 2022[39]). Both projects focus on the mobility patterns of individual workers, without considering household-level income sharing and the effect of the broader tax and benefit system.

[2] For a discussion of the potential and limitations of using tax micro-data for policy analysis, see Kennedy (2019[58])

[3] Whenever available, this paper includes realised capital gains in the income measure, which diverges from OECD standard practice (see OECD (2025[59])). The main reason is that, for some countries, capital gains are reported alongside other income components and cannot be separately identified. Capital gains account for an important share of total income at the very top of the distribution.

[4] The differences in initial and final years may warrant caution when comparing results across countries and with previous estimates. Evidence on the impact of business cycles on relative income mobility is mixed. Some studies suggest that economic recessions tend to hinder upward mobility, particularly for those at the bottom of the income distribution (Martinez-Toledano et al., 2019[54]); others find no significant impact (Bradbury, 2011[38]). The COVID-19 crisis had a relatively mild impact on household incomes in most OECD countries, certainly when considering the size of the economic shock, thanks to the comprehensive income support provided by governments (Stantcheva, 2022[55]; Clark, D'Ambrosio and Lepinteur, 2021[56]).

[5] Aghion et al. consider only people between 30 and 50 years (here: 25 to 59 years), disposable incomes are averaged over three years at the start and end of their observation period (here: over two years), and incomes are equivalised by the number of adults in the household (here: square root of the number of household members).

[6] Alves and Martins (2012[22]) and Hungerford (2011[41]) look at income transitions for the entire population, earlier OECD work (2018[12]) focuses on the working-age population, however using a broader definition (18 to 65 years).

[7] The OECD Access to Cities typology accounts for the presence of cities, or Functional Urban Areas, and the extent to which the latter are accessible by the population living in each region (Fadic et al., 2019[57]). The typology classifies a small (TL3) region as metropolitan if more than half of its population lives in a midsize or large Functional Urban Area; otherwise, it is classified as non-metropolitan. Midsize Functional Urban Areas have 250 000 to 1.5 million inhabitants, large Functional Urban Areas at least 1.5 million inhabitants.