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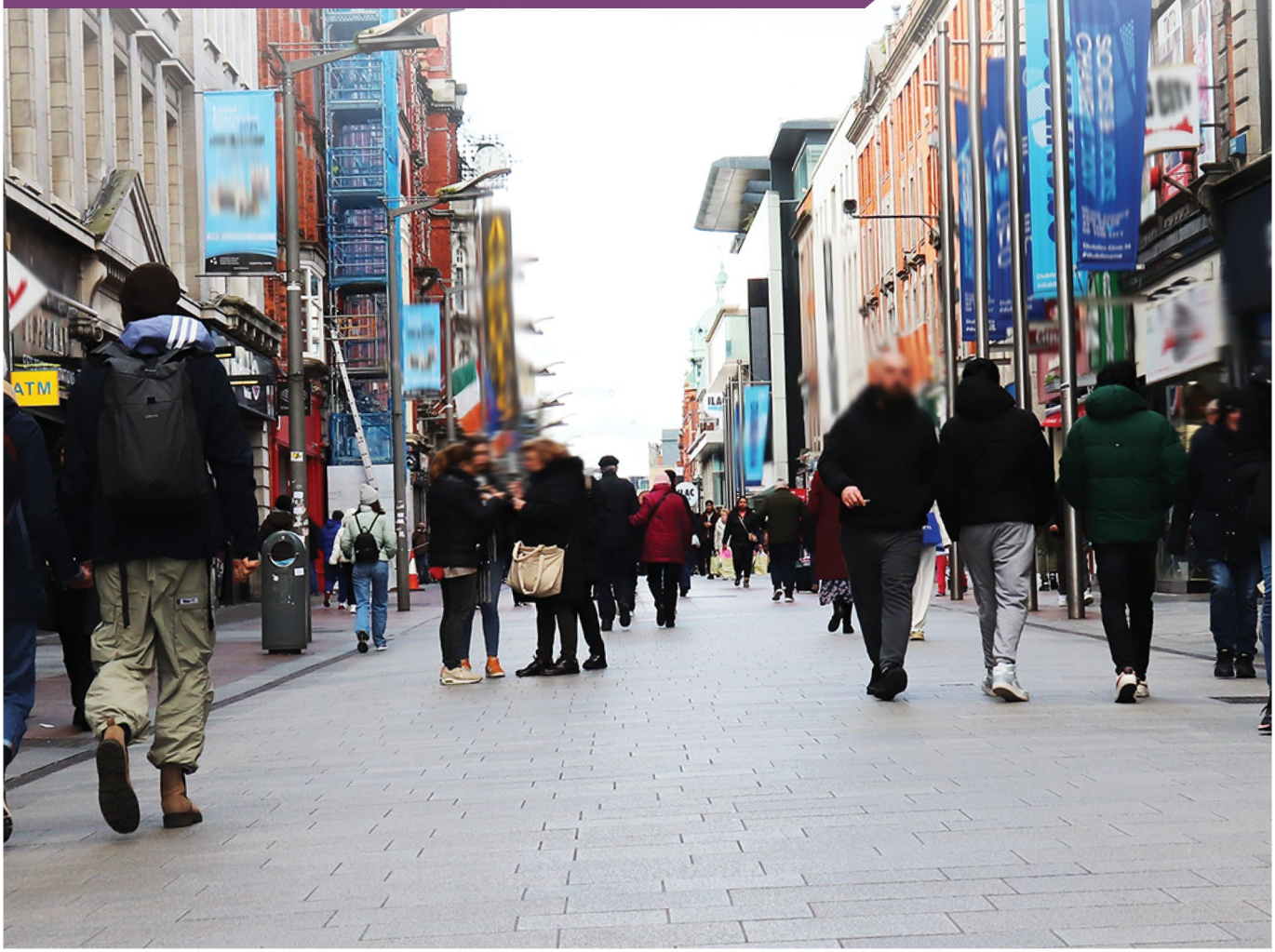

Contents

Inequality and wealth distribution among Irish households: introducing new Distributional Wealth Accounts

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Abstract

This *Article* introduces the experimental Distributional Wealth Accounts (DWA) for Ireland - a novel high-frequency dataset on household wealth consistent with National Accounts statistics, addressing increasing interest and growing demand for timely, consistent and internationally comparable information on the distribution of assets and liabilities across households. By linking Quarterly Sector Accounts with household survey data, DWA provide new insights on the growth of household wealth in Ireland on a quarterly basis. The data indicate that the overall increase in the net wealth of Irish households over the past decade has been accompanied by a significant reduction in inequality. This was mainly driven by strong growth in the net wealth of households in the bottom half of the distribution. Yet, the wealthiest 10 per cent of Irish households are more than five times as rich as those in the poorer half of the distribution altogether. One reason for this is the considerable heterogeneity in the composition of households' balance sheets and the increasing concentration of housing assets amongst richer households. Over the past decade, while those in the bottom half of the net wealth distribution mainly benefited from a reduction of their liabilities, the richest 10 per cent of households witnessed an increase of their assets' value.

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The views expressed are those of the author and do not necessarily reflect those of the Central Bank of Ireland or the Eurosystem. Very useful comments from Jean Cassidy, Dave Cronin, Robert Kelly, Tara McIndoe-Calder, Martin O'Brien, Jenny Osborne-Kinch, Simone Saupe and other colleagues are gratefully acknowledged.
The Distributional Wealth Accounts have been jointly developed by the European Central Bank and the National Central Banks (including the Central Bank of Ireland) of the Member States participating in the ESCB Expert Group on Distributional Financial Accounts between 2019 and 2024. The data used throughout this *Article* is based on the version originally released by the ECB on January 8th, 2024 and may be subject to subsequent updates and revisions.

1. Introduction

Policy-makers, researchers and the public have become increasingly interested in gaining a clearer understanding of how income and wealth are distributed across households. Several studies have highlighted that inequality may harm economic growth, worsen the effect of recessions and dampen the effectiveness of fiscal and monetary policies.[2]

Research in the field of inequality and distributional economics is substantial.[3] A significant literature stream for central banks particularly focuses on the intersection between monetary policy and inequality developments; a topic that has been growing in relevance for researchers[4] and policy-makers[5] alike.

Despite the ongoing development of internationally comparable datasets on the distribution of wealth in the past decade (e.g., the OECD Wealth Distribution Database also described in Balestra and Tonkin, 2018), consistent and high-frequency data allowing for more focused analyses has so far been scarce. Macroeconomic data (particularly Quarterly Sector Accounts statistics) provide a comprehensive view on the aggregate household sector's balance sheet at a granular time frequency, but lack distributional information. In contrast, household surveys and other micro data statistics provide detailed household-level information (on certain assets and liabilities, income, and consumption levels) but can suffer from infrequent timing and potential inconsistencies over time and across countries.

Experimental[6] DWA data published by the ECB in January 2024 bridges these two views, providing data on the distribution of wealth across households in the Euro Area, Ireland and 19 other European countries,[7] that are aligned with national accounts totals. The dataset includes information on the net wealth (and its components) of European households, broken down by their net wealth level (bottom half and top five deciles of the distribution), by employment and home-ownership status. The development of timely and granular distributional statistics on household wealth in Europe is in line with

[2] See, for instance OECD (2015), Dabla-Norris et al. (2015), Pereira da Silva et al. (2022).
[3] Nolan et al. (2019) and Zucman (2019) provide an overview of the literature on income and wealth inequality,
respectively.
[4] See, for instance, Coibion et al. (2017), Colciago et al. (2019), Hansen et al. (2020).
[5] See, for instance, Schnabel (2021), Carstens (2021), Makhlouf (2022) and the ECB's 2021 Policy Strategy Review.
[6] The ECB's definition of "experimental statistics" qualifies this dataset as being reliant on significant assumptions and undergoing further improvements, but nevertheless "sufficiently reliable to be useful for monetary policy purposes and various ESCB tasks".
[7] Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovenia, Slovakia, Spain and Hungary.

the targets of the G20 Data Gaps Initiative, alongside similar datasets already introduced in the USA and Canada (see Batty et al., 2019 and Statistics Canada, 2024) in previous years.

This *Article* provides details on the DWA for Ireland. It discusses the evolution of household wealth and inequality between Q2 2013 and Q2 2023. The new quarterly frequency introduced by this dataset allows one to investigate how the features of the Irish wealth distribution (so far only observed through infrequent surveys) have developed over the course of the past decade. This enables deeper analyses, which may focus on specific time intervals or specific household breakdowns.

DWA data highlights that the wealthiest 10 per cent of the population holds almost half of total net wealth in the country at the end of the reference period (more than five times the overall amount owned by the poorest 50 per cent altogether). It also describes how the balance sheet composition of poorer and richer households differs and how it evolved over time, providing insights on the importance of certain assets (especially housing) and on their distribution across different households. This aspect is of great importance for policy makers, as it allows users to conduct timely analyses on the impact of economic policy measures on specific sections of the population. Furthermore, the DWA contains key data to assess the financial vulnerabilities and the sensitivity of households to changes in the macroeconomic environment.

The remainder of this *Article* is structured as follows: Section 2 discusses the key features of the dataset. Section 3 leverages on the newly available DWA data to investigate the development of wealth and inequality in Ireland over the past decade, as well as the differences in balance sheet composition between poorer and richer households, especially in terms of asset ownership. Finally, Section 4 concludes.

2. Methodological overview and difference to existing sources

In January 2024, the European Central Bank published for the first time DWA statistics on its data portal.[8] The development of this experimental dataset is the result of work by the ECB-led Expert Group on Distributional Financial Accounts ("EG DFA"), which includes Ireland and 19 other European countries.

Until now, information on household wealth has primarily come from country-level statistics compiled as part of the quarterly sector accounts. Available

[8] Additional information is provided in the official release note and in the DWA's FAQ document.

since 1999 for Ireland, these time series provide a comprehensive view on the evolution of financial and non-financial assets and liabilities owned by the household sector. However, these statistics do not give any insight into the distribution of wealth instruments across households, as they show aggregates only.

Conversely, microeconomic survey statistics do provide distributional information, but given the comprehensive nature of such surveys, and the range of household characteristics that they capture, they are by design collected on a relatively infrequent basis. Moreover, in many instances, the results of these surveys are not directly comparable with national accounts figures. The main source of microeconomic distributional data for Ireland is the Household Finance and Consumption Survey (HFCS), a harmonized European multi-country survey collecting household-level data on assets, liabilities, income and demographic characteristics. In Ireland, the HFCS has been carried out three times so far: in 2013, 2018 and 2020.

The development of both quarterly sector accounts and the Irish HFCS is a result of cooperation between the Central Bank of Ireland and the Central Statistics Office (CSO). While the Central Bank is responsible for the compilation of quarterly financial sector accounts, the latter is the ultimate source of information on items of a non-financial nature. The CSO is also directly responsible for managing the primary microdata collected as part of the HFCS, whose conceptual development is overseen by the ESCB "Household Finance and Consumption Network" in which the Central Bank is also involved.

The DWA links survey data and sector accounts' totals, and therefore closes the gap on missing distributional information for macroeconomic statistics. As a first important step in this process, the EG DFA developed a wealth concept to be adopted in the DWA dataset by combining the instruments surveyed in the HFCS and their corresponding national aggregates.[9]

Table 1 presents the *financial assets*, *non-financial assets* and *liabilities* of households, in the form of a balance sheet. The resulting difference between total assets and liabilities equals household *net wealth*.[10]

[9] This definition also builds on previous considerations by the Expert Group on linking macro and micro data for the household sector about the comparability between wealth instruments surveyed in the HFCS and national accounts aggregates.
[10] Contrary to the familiar representation of a corporate balance sheet, equity only appears on the asset side (in the form of listed shares and private business wealth), but not on the opposite side.

Table 1: The household wealth concept adopted in the DWA

Assets	Liabilities
Financial	**Financial**
Deposits	Outstanding mortgages
Debt securities	Outstanding non-mortgages debt
Investment fund shares	
Life insurance and annuity entitlements	
Listed shares	
Financial business wealth	
Non-financial	
Housing wealth	
Non-financial business wealth	**Net Wealth**

Source: DWA methodological note.

This wealth concept largely covers the most important instruments recorded on a household's balance sheet (as these items represent the wide majority of households' wealth aggregates in sector accounts). However, it should be noted that some specific items such as cash holdings, trade receivables and - most importantly - pension entitlements, are not included due to limitations in the micro data collection. Given the different concentration of these "uncaptured" instruments across the wealth distribution, it should be acknowledged that their exclusion may therefore affect the DWA estimates of inequality.

Specific techniques and adjustments are applied in order to align microeconomic and macroeconomic data and to produce the dataset. These can be summarised in the following four steps:

- Categorization of households' assets and liabilities according to the conceptual national account equivalents;
- Corrections to specific wealth instruments (e.g., adjustments to reported deposit holdings deemed implausible);
- Population adjustments, mainly aimed at correcting the known issue of under-sampling of very wealthy households in survey data;[11]

[11] Vermeulen (2016) and Chakraborty and Waltl (2018) highlight this shortcoming. The latter also present a practical approach to estimate these "missing rich", which is close in principle to the method adopted in the development of the DWA. The approach followed relies on complementing the HFCS survey data with information published by the press about the wealth of the richest families in each country and filling the "gap" between those additional wealthy households and the richest HFCS respondents by assuming that wealthy households are distributed according to a Pareto distribution. This is not the only technique available to estimate the top tail of the wealth distribution uncaptured in survey data, and it is susceptible to parameter calibrations and data quality aspects. The study of alternative approaches to carry out this process, including by adjusting the household weights in the original HFCS data

- Reconciliation to national accounts totals and finalisation of the time series. Notably, interpolation and extrapolation techniques are applied to accommodate the lack of quarterly HFCS data. In principle, distributional structures are interpolated between survey quarters, and extrapolated until the release of the following wave.[12]

The above compilation steps inevitably rely on a number of significant assumptions, most notably in the approach taken to adjust the share of wealth belonging to the richest households in the country and to estimate the distribution of wealth in quarters after the latest HFCS wave.[13] Over time, both periodic updates to QSA aggregates and the release of new HFCS survey data will lead to revisions in the dataset (as they will lead to changes in national accounts totals and in the interpolation / extrapolation process, respectively).

The resulting dataset includes quarterly information from as early as Q1 2009 (Q2 2013 for Ireland) on the stock of assets and liabilities (and, consequently, net wealth) of resident households differing in their socio-economic characteristics for all European countries in the panel. Households are broken down into the following sections:

- Deciles of household net wealth;
- Working status of the main income earner of the household;
- Tenancy status.

Based on the above, the DWA also includes some derived statistics and indicators, such as the Gini coefficient for net wealth, data on median and mean net wealth levels, wealth amounts per household group and per capita, the share of total wealth belonging to different sections of the population (e.g., held by the poorest 50 per cent[14] of households), debt-to-asset ratios by each net wealth decile.

The following section of this *Article* will leverage on the quarterly series of asset and liabilities stocks in the DWA to investigate how household wealth (and its individual components, especially housing) evolved in Ireland between

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to follow an appropriate Pareto distribution (see, for instance, Kennickell et al., 2021), remains an ongoing area of research in the literature.

[12] This forms part of the assumptions adopted in the DWA compilation methodology, and reflects some constraints due to the infrequent timing of the HFCS. As a result, high-frequency changes in the distribution of wealth may not be fully captured in the data. Additional information on this process can be found in the DWA methodological note.

[13] However, the result of sensitivity analyses detailed in the DWA methodological note highlight only moderate discrepancies arising from changes in the compilation steps or in the parameters employed.

[14] DWA data groups together households in net wealth deciles 1 to 5 into a joint "bottom 50 per cent" cluster. Despite existing differences between households in those individual deciles, considering the lower half of the wealth distribution altogether allows for a more intuitive understanding of inequality in the country.

Q2 2013 and Q2 2023. It will also describe how wealth inequality in the country (as measured by the Gini coefficient) declined since the beginning of the series.

3. The evolution of wealth and inequality in Ireland between 2013 and 2023

The total net wealth of Irish households more than doubled throughout the last decade (increasing by €589 Bn), to stand shy of €1,079 Bn in Q2 2023. Over the same period, total net wealth of households in the Euro Area altogether increased by a more moderate 54 per cent (equal to €21,000 Bn overall).

A number of previous analyses (e.g, Quarterly Financial Accounts; Bader and O'Sullivan, 2019) described the main factors that led to the strong growth of wealth in Ireland, namely: continued appreciation of housing, accumulation of financial assets and the significant de-leveraging process that followed the Great Financial Crisis. Other research (e.g., Lawless et al., 2015; Horan et al., 2020; Arrigoni et al., 2022) discussed how this increasing amount of wealth was distributed across households at a few specific points in time, identified by the reference years of the HFCS.

While these analyses contributed to shine a light on the increasing level of aggregate wealth and its distribution across households, the DWA now provides more high-frequency information on the quarterly distribution of assets and liabilities, consistent with national account statistics. Due to the availability of richer, more granular data, the findings of the following analytical sections complement and significantly expand the preliminary results presented by Daly (2022) and discuss the evolution of wealth, its different composition across households as well as the level of inequality in Ireland between 2013 and 2023.

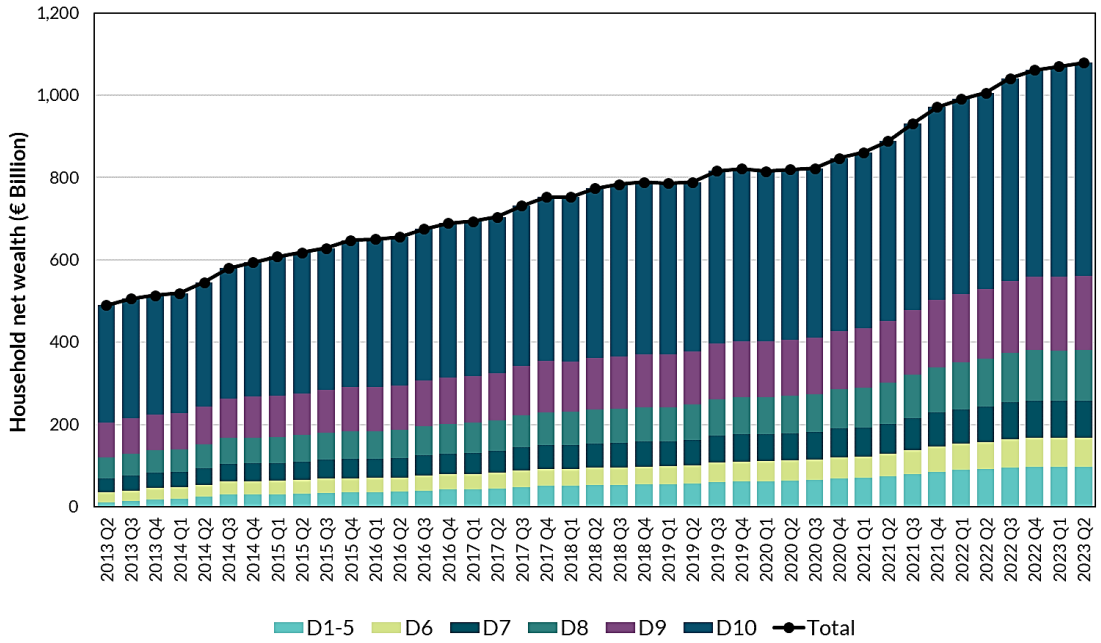
The development of Irish household wealth

As of Q2 2023, the wealthiest 10 per cent of Irish households owned €518 Bn, or 48 per cent of total household net wealth in the country (Figure 1).

This is more than five times the amount held by households in the bottom half of the net wealth distribution altogether (€98 Bn, or 9 per cent). However, total net wealth of the latter grew almost ten-fold since the beginning of the series (albeit starting from a low level: from €10 Bn in Q2 2013 to €98 Bn in Q2 2023), while it less than doubled for households in the top decile (increased by 81 per cent from €286 Bn in Q2 2013). This also affected the overall share of net wealth held by poorer and richer households over the past decade: since

the beginning of the series the percentage of net wealth held by households in the bottom half of the wealth distribution increased from 2 per cent to 9 per cent. Conversely, the same share held by the top decile fell by 10 percentage points (i.e., from 58 per cent to 48 per cent) in the same period.

Figure 1: The wealthiest 10 per cent of Irish households own almost as much wealth as all other households in the country combined



Note: households are classified into sequential deciles (the bottom five deciles altogether, and the following five individually) according to their level of net wealth.
Source: author's calculations based on DWA data.

Households in deciles 6 to 9, owned €462 Bn as of Q2 2023. While in magnitude terms this equals to a €268 Bn increase since the beginning of the series, the share of total net wealth held by households in this section of the distribution remained relatively stable over time (from 40 per cent of the total in Q2 2013 to 43 per cent in Q2 2023).

As the share held by the poorest half of households increased and the share owned by the richest 10 per cent decreased, it follows that ultimately wealth inequality in Ireland reduced since the beginning of the series.

The DWA also allows one to investigate the development of net wealth by employment and home-ownership status (Figures A.1 and A.2 of the Appendix). As of Q2 2023, employees and retired households owned the largest part of net wealth in Ireland (€480 Bn and €290 Bn, respectively). Over the course of the decade, the share of total net wealth held by employed and retired households altogether increased significantly (growing from 57 per cent to 71 per cent). Conversely, the share owned by self-employed

households decreased by 8 percentage points since the beginning of the series, to reach 20 per cent as of Q2 2023. Sectioning by housing tenure highlights an extreme concentration of total net wealth within home-owners (shy of 97 per cent).

The composition of wealth across Irish households

In addition to differing in the magnitude of their net wealth, Irish households also vary in terms of balance sheet composition, and how it has developed over time. Differences in the evolution of holdings of different wealth instruments also affected the overall evolution of net wealth across households.

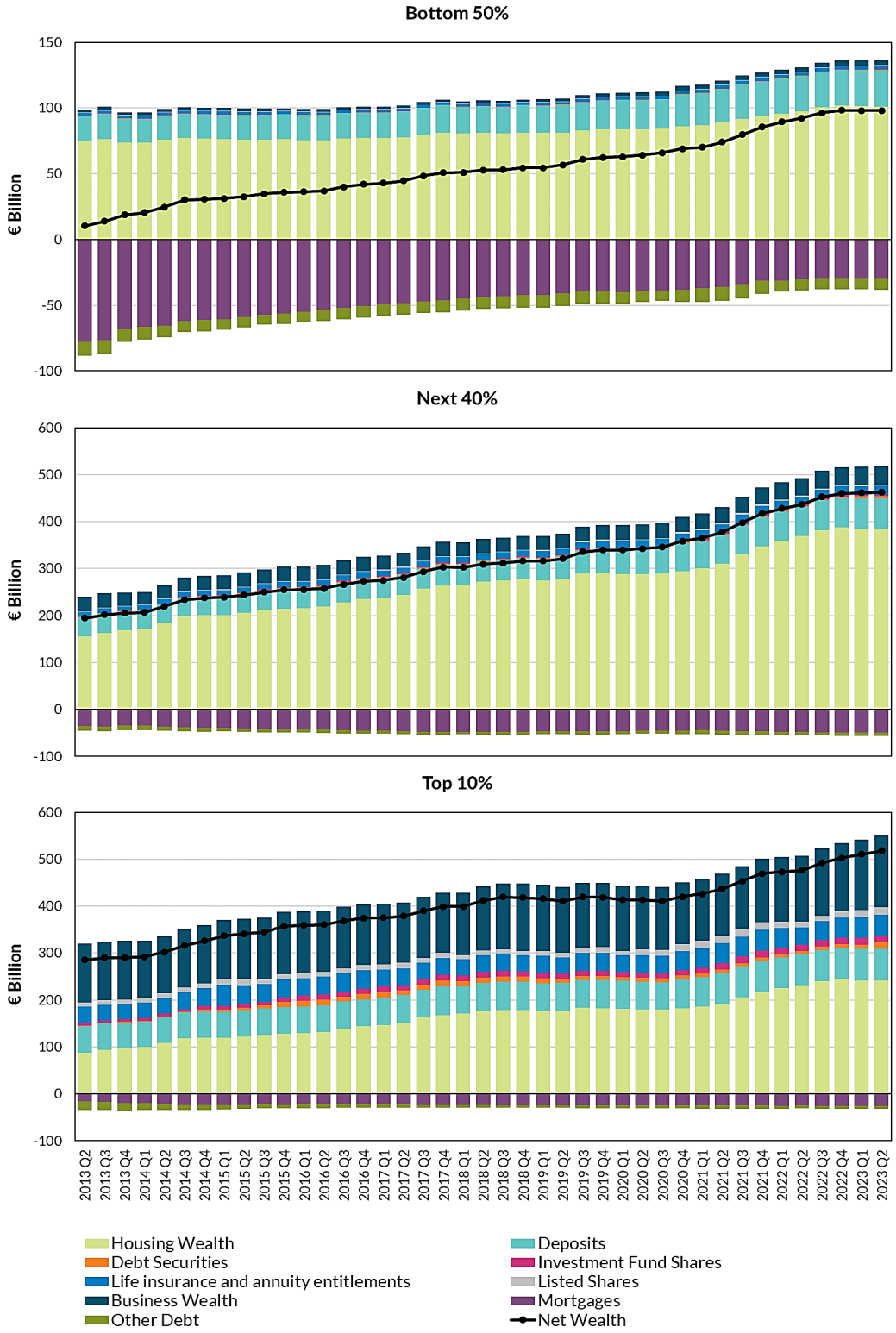
Household portfolio composition and its evolution over time

DWA data for Q2 2023 show a considerable heterogeneity in the composition of Irish households' wealth.

Housing [15] represents the most important asset for Irish households in all sections of the net wealth distribution (Figure 2), although accounting for varying shares of each groups' total assets: 74 per cent for both households in the bottom five and "middle" four deciles, and 44 per cent for households in the wealthiest decile. Overall, the assets of the latter are significantly more diversified than those of the other household groups and *business wealth* (which includes ownership stakes in unlisted companies) accounts for a considerable share of their portfolio (28 per cent). Moreover, this specific asset is particularly concentrated at the top of the net wealth distribution, as the richest 10 per cent of Irish households own 78 per cent (equal to €152 Bn) of all business wealth in Ireland. While business wealth still has moderate relevance on the balance sheet of households in the "middle" deciles, it only accounts for a negligible share of the wealth composition of the poorest 50 per cent of households. The same is also observed with respect to holdings of *listed shares* and *debt securities*.

[15] Comprising residential dwellings and their underlying land.

Figure 2: The composition of net wealth differs between richer and poorer households, but housing is prominent for all



Source: author's calculations based on DWA data.

Conversely, for households in the bottom 50 per cent of the net wealth distribution *bank deposits* play an important role, amounting to 20 per cent of their total assets as of Q2 2023. For both households in the middle 40 per cent

and the top 10 per cent of the net wealth distribution, deposits represent a lower share of total assets (about 13 per cent each, as of Q2 2023), reflecting the more diversified composition of their assets.

The overall amount of *debt* (including mortgages and other personal credit) of households in the bottom half of the net wealth distribution equals €38 Bn as of Q2 2023, accounting for 30 per cent of total household debt in Ireland. While the absolute debt figures for households in deciles 6 to 9 (€56 Bn altogether and 45 per cent of the total) and in the wealthiest decile (€31 Bn and 25 per cent) may appear comparable, neither their debt-to-assets ratios (see Box A) nor their evolution during the past decade do.

DWA data also show significant differences in the portfolios of household groups broken down by employment status. For instance, business wealth acquires particular importance in the balance sheet of self-employed households, where it accounts for almost the same share of their total amount of assets as housing (38 per cent and 41 per cent, respectively). Irish retirees display a higher concentration of assets in bank deposits (17 per cent), while employed households' assets include sizeable investments in *life insurance* products (€35 Bn, equal to 6 per cent of their total assets). As of Q2 2023, retirees own a marginal amount of debt liabilities (€6 Bn, or 4 per cent of the overall total), as they have already largely repaid their mortgages. Conversely, employed households present larger balances of outstanding debt (€90 Bn, or 72 per cent of the total).

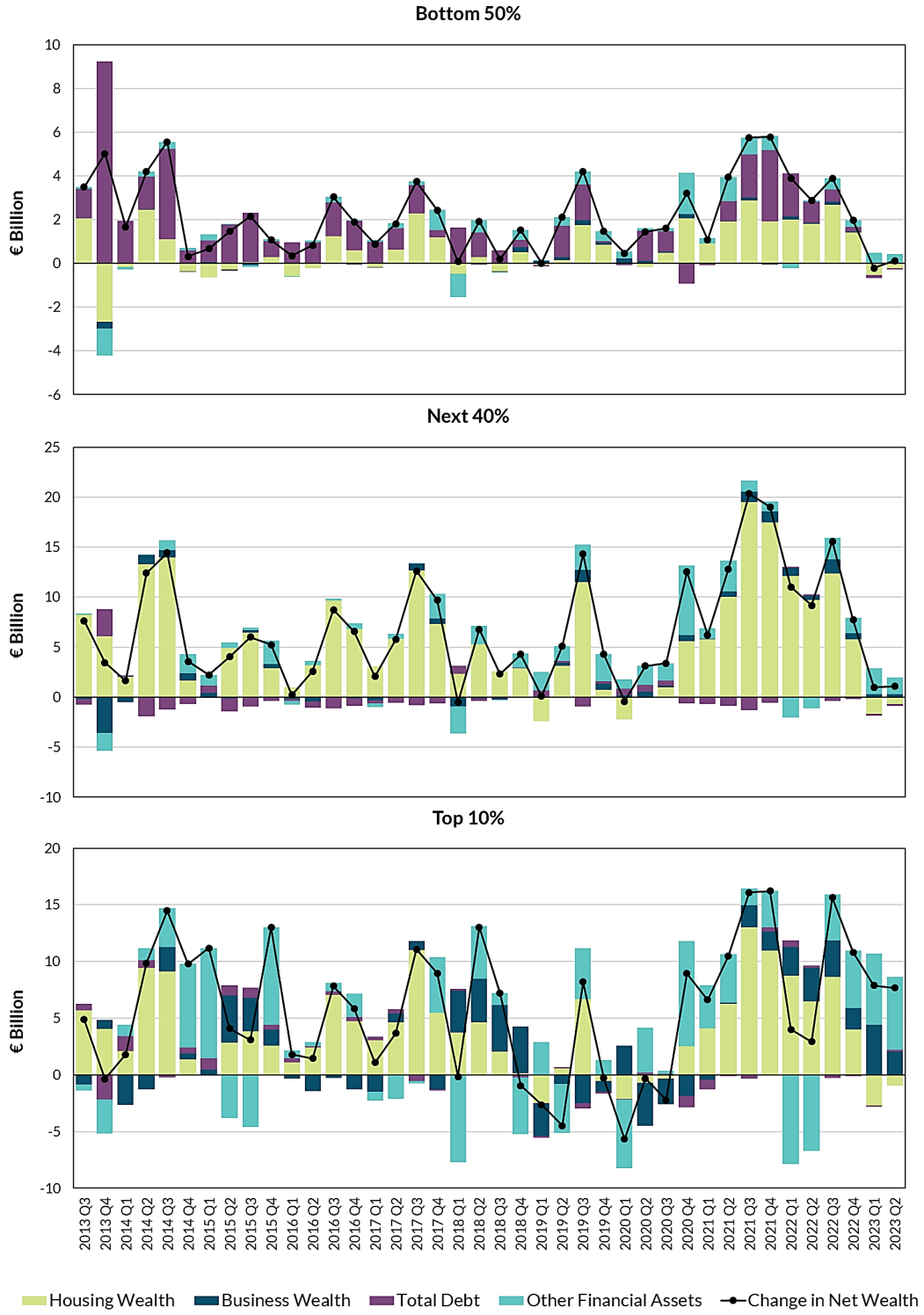
Capturing *quarterly changes* in the wealth of Irish households in the bottom 50 per cent, the following 40 per cent and the top 10 per cent of the net wealth distribution represents a significant element of novelty introduced by the DWA dataset (Figure 3). These variations may also be broken down into the more gradual components of wealth to assess how the importance of specific items for different household changed over time. Instruments observed include: housing, deposits, business wealth, total debt (including mortgages and other debt) and the remaining "other financial assets" (i.e., debt securities, investment fund shares, life insurance and annuity entitlements, and listed shares).

For the "middle" 40 per cent and the top decile of households in the Irish wealth distribution, debt remained relatively stable during the past ten years. Conversely, for households in the poorer half of the distribution, outstanding debt declined by €50 Bn (or 57 per cent) between 2013 and 2023. This may imply voluntary repayments of outstanding debt as well as a decline in new lending (or a combination of the two), and has significantly driven the increase

in net wealth that those households experienced over the past decade. Moreover, sizeable changes in the value of housing assets held by these households further contributed to the increase in their wealth. Over the course of the decade their stock of housing assets increased by €27 Bn (or 36 per cent).

For the "middle" deciles (6 to 9), changes in net wealth have been mainly driven by variations in the stock of their housing assets (Figure 3). This includes new housing acquisitions and the revaluation of their existing housing stock, which more than doubled since Q2 2013, increasing by €230 Bn.

Figure 3: Debt reductions primarily drove changes in net wealth for households in the bottom half of the distribution, while positive changes in the value of assets (especially housing) drove them for richer households



Source: author's calculations based on DWA data.

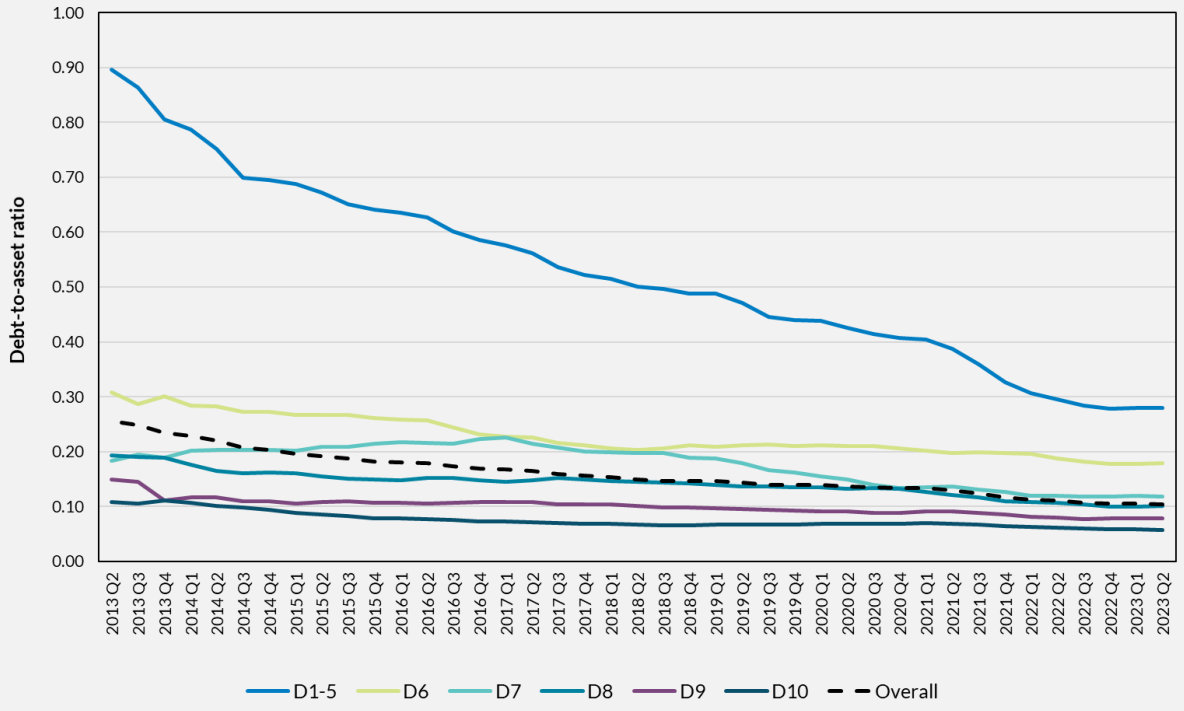
Changes in the wealth of the richest 10 per cent of Irish households, in line with the greater degree of portfolio diversification that they exhibit (as seen above), appear to be driven by a combination of movements in several instruments. For

instance, business wealth grew cumulatively by €27 Bn (or 21 per cent) over the period, and financial assets by €49 Bn (equal to a 46 per cent growth). Most notably, since the beginning of the series the stock of housing assets owned by households in the wealthiest decile rose by €153 Bn (almost tripling since Q2 2013).

Box A: The deleveraging process and the debt-to-asset ratios of Irish households

DWA data (eventually combined with supplemental sources) allows a series of useful metrics for financial stability analyses to be constructed, thus introducing a new time-series perspective to previous research by Central Bank of Ireland staff that focused on aggregate (Quarterly Financial Accounts) and point-in-time distributional aspects (Arrigoni et al., 2022) of households' financial soundness. This Box investigates one example of such indicators: the *debt-to-asset ratio*, calculated as the relationship between total outstanding liabilities and total assets.

Figure 4: The debt-to-asset ratio of households in the bottom half of the net wealth distribution has decreased over time, but remains significantly above average



Source: author's calculations based on DWA data.

Analyses of the economic resilience of households (here broadly interpreted as their ability to withstand adverse financial shocks by relying on the existing stock of savings as a buffer) often follow an "expenses" approach, comparing repayment flows during the year with the available amount of income and liquid assets. This is, for

instance, the approach behind the *financial margin* and *debt service* metrics discussed in Adhikari and Yao (2023).

While these indicators provide useful information on the sustainability of existing debt, they do not give a perspective on the overall stock of liabilities and their distribution across households in Ireland (e.g., are households with different levels of assets borrowing in the same proportion?). Investigating the evolution of debt-to-asset ratios by net wealth decile (Figure 4) contributes to answering this question.

As discussed in this *Article*, households in the lower half of the Irish net wealth distribution witnessed a sizeable reduction in their outstanding debt, paired with a (more moderate) increase in their total assets. Consequently, their debt-to-asset ratio fell from 0.90 in Q2 2013 to 0.28 in Q2 2023. While this marks a 69 per cent decrease in the ratio since the beginning of the series, it remains largely above the overall Irish average (equal to 0.10 as of Q2 2023).

The wealthiest 10 per cent of households, conversely, display a debt-to-asset ratio below average (0.06 as of Q2 2023). Since the beginning of the series, it only decreased by 5 percentage points and has largely remained below the 0.1 threshold throughout the period. In other words, these households have consistently been owning, on average, more than 10 times the amount of assets compared to their debt level, indicating the large availability of potential buffers against negative income shocks for this household group.

The debt-to-asset ratios of households in the "middle" section of the net wealth distribution (deciles 6 to 9) stand in an intermediate position between those of households in the bottom 5 or in the top decile, sequentially ranging from 0.18 to 0.08 as of Q2 2023 (with lower deciles exhibiting larger ratios). Considering those four deciles together, their combined debt-to-asset level (0.11) appears close to the overall Irish average at the end of the series. Although higher than for the top 10 per cent, households in this section of the net wealth distribution also appear to have built up a sizeable stock of financial buffers in relation to their debt (which moderately increased over the decade, by €10 Bn overall).

Considering the occupational breakdown, both Irish employed and unemployed households stand above the average (with ratios equal to 0.16 and 0.15, respectively), while retirees display ratios well below this amount: equal to 0.02, as of Q2 2023.

DWA data shows that the debt-to-asset ratios of Irish households have followed a similar evolution to the average ratios of households in the Euro Area altogether, as those in the bottom half of the European net wealth distribution also exhibit an above-average (but declining over time) indicator, and wealthier households display

progressively lower ratios. In magnitude terms, while the overall debt-to-asset ratio in the Euro Area (0.11) stands close to the Irish one, the poorer half of households in the former appears to be more leveraged, with a ratio of 0.39 as of Q2 2023.

The analysis of debt-to-asset ratios could also be further refined by differentiating between available *liquid* or *illiquid* assets. For instance, a similar distinction is made by Arrigoni et al. (2022) to identify more "precarious" households across the joint income, consumption and wealth distribution (based on HFCS data).

Overall, the analysis of debt-to-asset ratios by net wealth deciles highlights how the level of financial leverage of Irish household decreased over time. Together with the findings of the latest Central Bank of Ireland's Financial Stability Review (2023), which pointed out that there are "few signs of a system-wide deterioration in borrowers' repayment capacity" despite the adverse effect of interest rates increases for some vulnerable households, these results suggest an increased level of financial resilience of households in Ireland since the beginning of the period.

The role of housing on the development of household wealth in Ireland

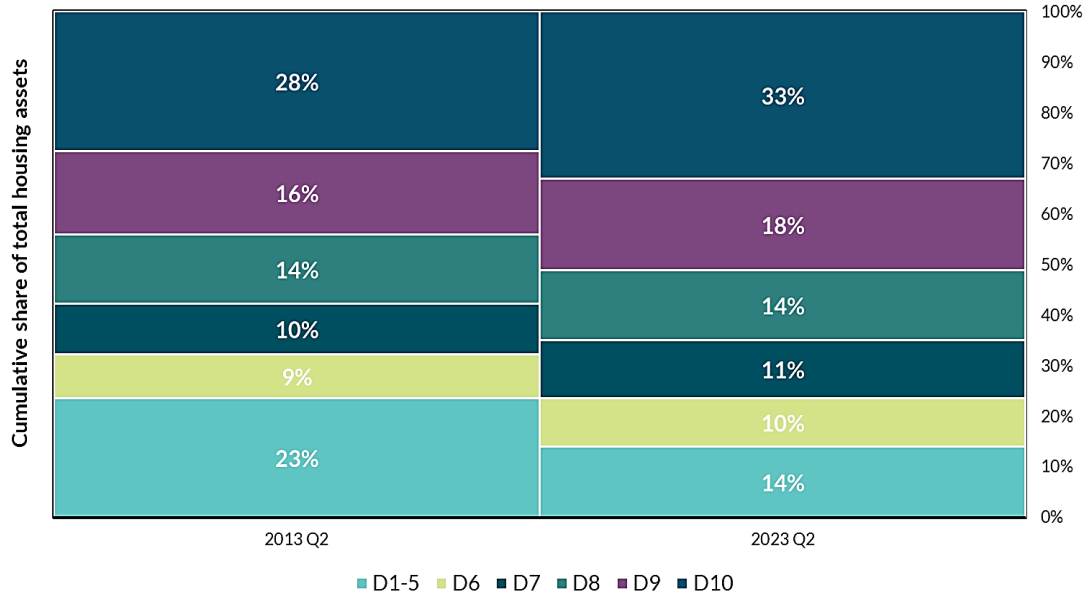
Housing assets are the primary component of the balance sheet of Irish households across all sections of the net wealth distribution, accounting for over 60 per cent of total households assets in the country as of Q2 2023. They have also been one of the key drivers of changes in net wealth over the course of the past decade (Figures 2 and 3). The importance of housing in the balance sheet of Irish households is consistent with previous findings and data from the 4th HFCS wave, which suggests similarly high rates of home-ownership compared with other European countries.

Since the beginning of the series, the overall value of the stock of housing assets more than doubled (rising by €410 Bn), to reach €727 Bn in Q2 2023. However, this large amount of housing wealth is unevenly distributed: the richest decile of Irish households owns one-third (€241 Bn) of the total, while households in the bottom 50 per cent of the net wealth distribution own 14 per cent (€101 Bn). The remaining, and therefore largest, share of housing wealth belongs to households in the "middle" section (deciles 6 to 9) of the distribution altogether: €385 Bn, or 53 per cent of the total.

Growth in the value of housing assets over the past decade led to an increase in the concentration of Irish housing wealth within the richest 10 per cent of households (Figure 5). The share of total housing assets belonging to these households increased about 5 percentage points when comparing Q2 2023 to the same quarter ten years earlier (rising from 28 per cent to 33 per cent of the

total). Households in the intermediate part of the net wealth distribution also witnessed an increase in their share of overall housing wealth between Q2 2013 and Q2 2023. Conversely, the quota of housing assets owned by households in the bottom half of the net wealth distribution fell by 9 percentage points over the same period (decreasing from 23 per cent to 14 per cent of the total).

Figure 5: The share of total housing assets held by households in the bottom half of the net wealth distribution decreased since 2013, while it increased for richer households



Source: author's calculations based on DWA data.

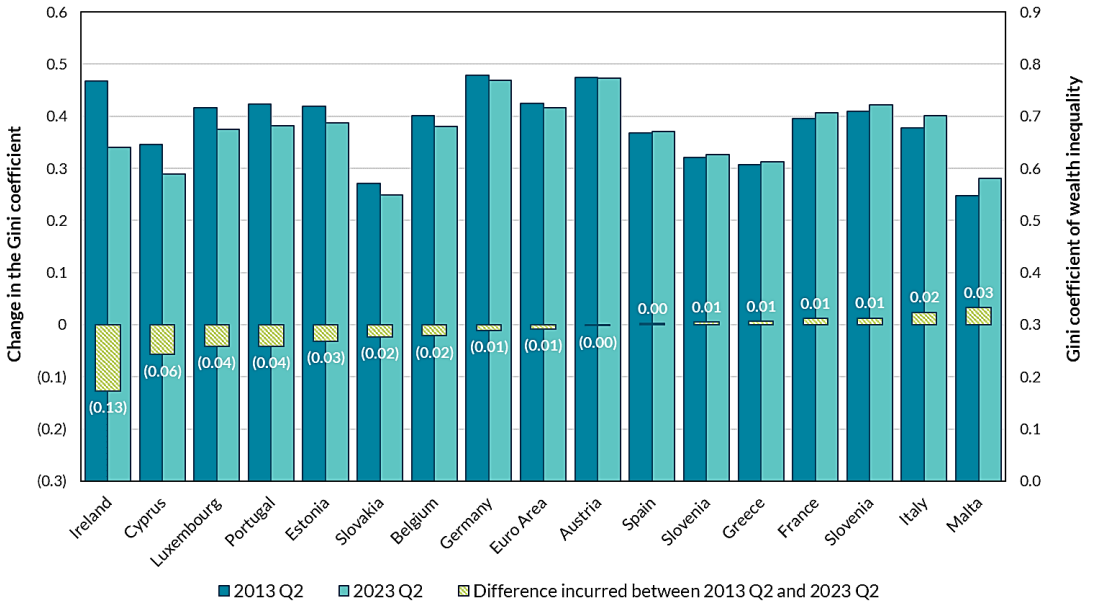
Similarly, housing wealth became increasingly concentrated within the group of retired households in Ireland, whose share in the holding of total housing assets increased from 21 per cent in Q2 2013 to 28 per cent in Q2 2023. This change was primarily mirrored by a reduction in the share of housing wealth of self-employed workers, while the overall share of housing belonging to employees has remained stable (at around 53 per cent of the total) over the past decade. Throughout this period, total net wealth of Irish households remained highly concentrated within homeowners (see Figure A.2 in the Appendix), highlighting a clear difference with tenant households.

Net wealth inequality in Ireland and Europe

Differences in the distribution of wealth instruments across households, as well as their quarterly changes, have consequently driven the evolution of the overall level of net wealth inequality in Ireland. The DWA employs the Gini

coefficient as a measure of distance from a measure of perfect equality.[16] Leveraging on the consistent methodological approach employed by the DWA, this section provides a brief overview of the development of wealth inequality in Ireland since Q2 2013, together with a high-level comparisons with other European countries in the panel.[17]

Figure 6: Ireland exhibits the sharpest decline in net wealth inequality across the panel of European countries in the DWA



Source: author's calculations based on DWA data.

Since the beginning of the series the Irish Gini coefficient of net wealth decreased sharply from 0.77 to 0.64, turning Ireland from the third most unequal country (in Q2 2013) to stand below most other European countries in the panel as of Q2 2023. In the same period, the Gini index remained stable - or only marginally changed – for most other countries in the DWA panel (Figure 6).

The evidence from this analysis is also in line with the findings of Horan et al. (2020), based on the comparison between Irish HFCS results in 2013 and 2018. However, new DWA data allows users to expand those authors' considerations by providing a quarterly series on the evolution of inequality.

[16] The Gini coefficient ranges from 0 (wealth is equally spread across the population) to 1 (all wealth is held by one individual).

[17] However, it should be noted that the Gini coefficient of wealth inequality may implicitly reflect relevant country-specific characteristics, such as the different rate of housing ownership or the presence of extremely rich households. As a result, effective comparisons of wealth inequality across countries should take a holistic approach and also consider additional aspects to complement the analysis of Gini coefficient trends, such as structural differences in the ownership of assets or other country-specific peculiarities affecting the distribution of wealth.

Additional metrics of inequality (discussed, for instance, by Neves Costa and Pérez-Duarte, 2019) such as the "Atkinson" and "Theil" indices, could also be considered as complements or substitutes to the Gini index in future work, to provide a more comprehensive assessment.

Overall, the significant reduction in net wealth inequality in Ireland during the last decade as measured by Gini coefficient was mainly led by the continued reduction of liabilities of households in the bottom half of the distribution (which consequently increased their net wealth), paired with an overall growth in the value of housing assets.

4. Conclusions

Distributional Wealth Accounts provide a useful source of data on the distribution of household wealth in Ireland. This experimental dataset provides insights on the level and development of assets and liabilities, as well as their components, broken down into net wealth deciles, employment and housing status.

The new quarterly frequency introduced by the DWA allows users to assess how changes in the value of households' assets and liabilities over time impacted the distribution of wealth and the level of inequality in the country. Moreover, the dataset's consistency with existing national accounts aggregates allows one to obtain previously unknown distributional breakdowns for macroeconomic time series.

Evidence from the DWA indicates that the increase in Irish households' net wealth over the past decade (previously observed in macroeconomic statistics) was not evenly distributed across household groups. While for households in the bottom half of the net wealth distribution such an increase was primarily driven by large reductions in debt liabilities, growth in the value of assets (especially housing) benefited households in the upper half.

Furthermore, this *Article* underlined how new DWA data may play a role in future distributional analyses and provided a discussion on the evolution of household wealth in Ireland since Q2 2013, with the following key findings:

- As of Q2 2023, the richest decile of Irish households held almost half of total net wealth in the country, five times the amount owned by the poorest 50 per cent of households altogether;
- Despite differences in the balance sheet composition of poorer and richer households, housing assets remain the most important balance sheet component for Irish households in all net wealth deciles. However, the total share of housing assets owned by the richest 10 per

cent of the population has increased during the past decade, while the share held by households in the bottom half of the distribution declined over time;
- The net wealth distribution is less unequal considering its occupational breakdown, with employees and retirees holding over 40 per cent and shy of 30 per cent of the total, respectively. Net wealth is, however, highly concentrated within Irish home-owning households, who hold almost 97 per cent of the total;
- Net wealth inequality in Ireland, as measured by the Gini coefficient, fell sharply since the beginning of the series, to stand below most other European countries as of Q2 2023.

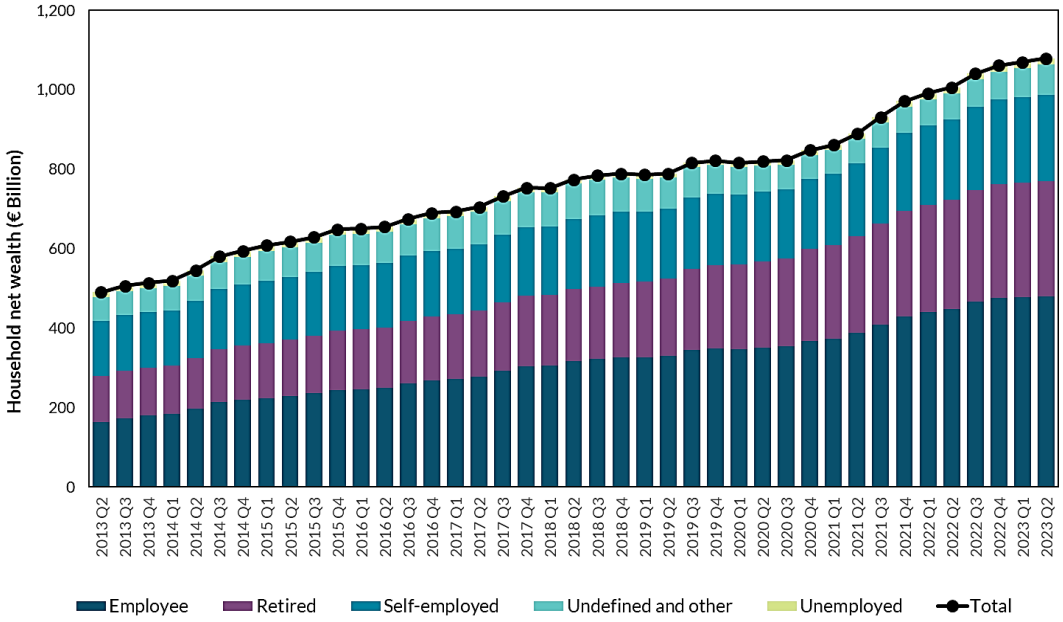
Ultimately, this *Article* showed that new DWA data provides a useful resource for policymakers interested in studying how the wealth of individual sections of the population evolved between specific points in time. For instance, future avenues of work could include distributional analyses on the accumulation of bank deposits during COVID-19, or on the development of housing wealth throughout the pandemic and the recent rise in inflation and interest rates.

Moreover, government and central bank economists engaged in macroeconomic and macro-financial modelling may build on information from this dataset to further consider the distributional implications of specific policies, or focus their analyses on more narrow time frames.

Further improvements to the DWA are still ongoing under the auspices of the EG DFA, in line with the guidance of the OECD and the goals of the G20 Data Gaps Initiative. Some areas of future work may entail improving the quality of the data sources at the basis of the compilation and considering the inclusion of additional wealth instruments or new socio-economic breakdowns (such as the household's income level), as well as developing technical improvements for the estimation of the time series.

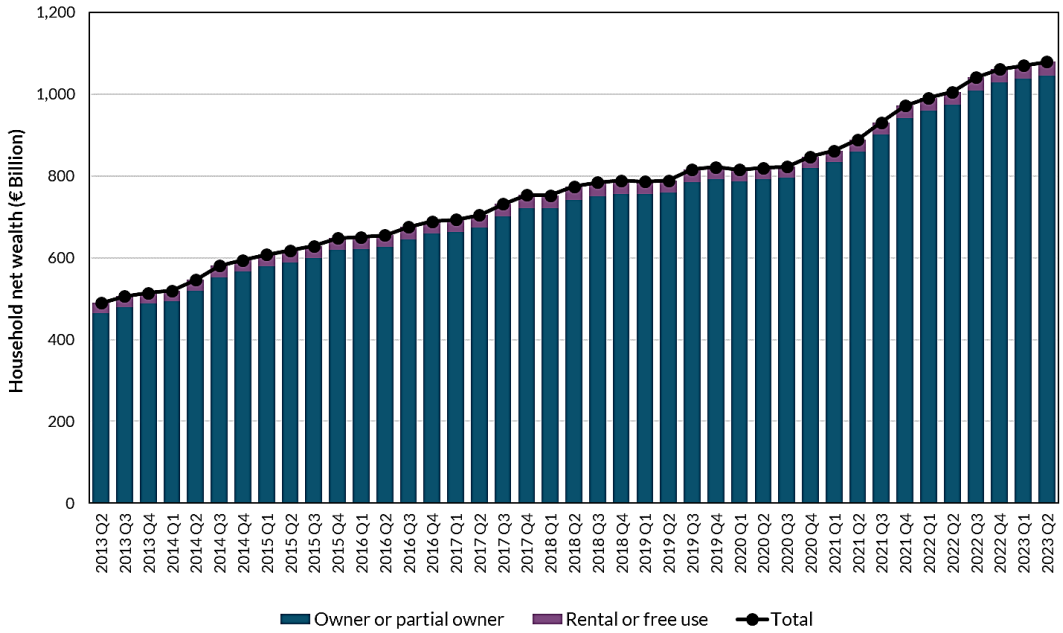
Appendix

Figure A.1: Employed and retired households combined own more than 70 per cent of total net wealth in Ireland



Source: author's calculations based on DWA data.

Figure A.2: Irish home-owners own almost the totality of net wealth in the country



Source: author's calculations based on DWA data.

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