Compilation of Distributional Wealth Accounts (DWA) for euro area countries

UNECE Group of Experts on National Accounts
25-27 April 2023

Nina Blatnik and Pierre Sola
European Central Bank
Overview

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Motivation and timeline of the ESCB project</td>
</tr>
<tr>
<td>2</td>
<td>SNA Guidance Note on process to be followed</td>
</tr>
<tr>
<td>3</td>
<td>DWA compilation approach compared with SNA Guidance Note</td>
</tr>
<tr>
<td>4</td>
<td>Distributional Wealth Accounts results</td>
</tr>
<tr>
<td>5</td>
<td>Way forward</td>
</tr>
<tr>
<td>6</td>
<td>Lessons learnt</td>
</tr>
</tbody>
</table>
1. Motivation and timeline of the ESCB project
1. Motivation

Improving the understanding of wealth inequality

High demand for distributional data

- Inequality on political agenda
- Household sector heterogeneity matters for monetary policy
- Interest of central banks in inequality data
- G20 Data gaps initiative: increasing focus on distributional accounts
- Guidance note on Distributional Accounts planned in new SNA

Difficulty to put together available sources

- Household surveys and sector accounts have different aims and concepts
- Accessible administrative sources scarce and not always easy to integrate into statistical framework
1. Timeline

Launch of the Expert Group: end-2015

First report: April 2017

Linking concepts and main methodology: June 2019

Experimental compilation: Dec. 2021 (quarterly update) for 12 countries and euro area

Coverage extended to 18 countries: Nov. 2022

Publication of experimental data: 2023
2. SNA Guidance
Note on process to be followed
2. SNA Guidance Note on process to be followed

**SNA Guidance Note:** 5 main steps are recommended

- **Step 1:** adjustment of NA totals (e.g. to exclude Non-Profit Institutions Serving Households)
- **Step 2:** selecting relevant micro data in relation to macro items
- **Step 3:** imputing for missing elements and aligning macro and micro results
- **Step 4:** clustering households according to household groups
- **Step 5:** derive relevant distributional indicators
3. DWA compilation approach as compared with SNA Guidance
3. Compilation approach for DWA

**SNA step 1: adjustment of National Accounts totals**

**Housing and business wealth**
- Estimate missing National Accounts breakdowns (e.g. exclude NPISH)

**Household sector liabilities**
- Split of totals loans into mortgage and other loans using banking balance sheet statistics
## 3. Compilation approach for DWA

**SNA step 2a: selecting relevant micro data in relation with macro items**

<table>
<thead>
<tr>
<th>Distributional data</th>
<th>Macro-aggregates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household Survey</strong> (in the euro area: HFCS → Household Finance and Consumption Survey)</td>
<td><strong>Sector accounts: Financial Accounts and non-financial assets (QSA)</strong></td>
</tr>
<tr>
<td>• Every 3 years since 2010</td>
<td>• Quarterly, starting 1999</td>
</tr>
<tr>
<td>• 91,000 households in euro area (2017)</td>
<td>• Integrated &amp; exhaustive</td>
</tr>
<tr>
<td>• Very detailed results</td>
<td>• ESA/SNA methodology and breakdowns</td>
</tr>
<tr>
<td>• Micro data for research</td>
<td>• Good frequency and timeliness</td>
</tr>
<tr>
<td><strong>Limitation:</strong> Low frequency and timeliness</td>
<td><strong>Limitation:</strong> No breakdown within household sector</td>
</tr>
</tbody>
</table>
3. Compilation approach for DWA

SNA step 2b: selecting relevant micro data in relation with macro items

Challenge to link items in household net wealth between the household survey and Sector Accounts

- Items with high or medium comparability of concepts
  - Financial assets: Deposits, Bonds, Investment funds, Listed shares, Unlisted equity, Life insurance
  - Non-financial assets: Non-financial business wealth, Housing
  - Liabilities: Mortgage loans, Other loans

- Items with low comparability
  - Not included: Currency (no data in HFCS), Pension entitlements (low comparability with HFCS), Social security pensions (outside the QSA)

The DWA cover about 90% of the euro area households’ assets and liabilities.
3. Compilation approach for DWA

**SNA step 3:** imputing for missing elements and aligning macro and micro results

**Challenge:** closing the coverage gap

High & varying differences in coverage ratios, in most cases: household survey < Sector Accounts

Coverage ratio = total HFCS wealth / QSA counterpart

Wave 3 (2016-18) of HFCS. Coverage varies from wave to wave. Data for the 12 original members of the expert group.
3. Compilation approach for DWA

SNA step 3a: imputing for missing elements

Covering financial lease
- Incorporate available country data on equivalent stock of loans

Match “managed accounts” from the HFCS into Sector Accounts items
- Different concept in Household Survey and Sector Accounts

Deposits
- Identify outliers and estimate correction for underreporting

Missing wealthy households
- Augment household survey results (HFCS) with “rich list” and synthetic households, assuming Pareto distribution of the top tail
3. Compilation approach for DWA

*SNA step 3a: imputing for missing elements*

- Wealthy households not fully covered in HFCS
- Complementing HFCS sample with “rich lists”
- In most countries, large gap remains between richest HFCS household and poorest in rich list
  → Synthetic households sampled from the estimated Pareto tail
3. Compilation approach for DWA

*SNA step 3b: aligning macro and micro results*

Final grossing up

- Proportional allocation of the remaining gap
- Special process for households with negative wealth
3. Compilation approach for DWA

*SNA step 3b: impact of the estimation methods (net wealth)*

- **Added rich** impact on instrument and overall distribution
- **Proportional adjustment** leaves inequality within each instrument broadly unchanged
- Transparent
- Also used by the OECD/Eurostat for income

Wave 3 (2016-18) of HFCS. Coverage varies from wave to wave. Data for the 12 original members of the expert group.
3. Compilation approach for DWA

*Additional step (presented separately in SNA Guidance): time series*

General request to use distributional data together with other regular statistics
→ quarterly frequency, and *timeliness* as close as possible to Sector Accounts.

**Wealth:** changes are relatively slow

- Interpolate decile shares between HFCS periods
- Extrapolate after latest HFCS period using fixed distribution

Allows to capture some of the short-term changes impacting on distribution (in particular price variations)
4. DWA results
Deciles based on net wealth for:

- Net wealth
- Total assets
- Total liabilities
- Deposits
- Debt securities
- Listed shares
- Investment fund shares
- Life insurance and annuity entitlements

- Unlisted shares and other equity
- Non-financial business wealth
- Housing wealth
- Mortgage debt
- Other debt

Working status:
- Employee
- Self-employed
- Retired
- Unemployed
- Undefined and other

Housing status:
- Owner / Partial owner
- Rental / Free use

Share of wealth of top 5%, 10% and bottom 50%
- Gini (net wealth)

Median and mean wealth
- Debt-to-assets ratios
4. DWA results

**SNA step 4: clustering households according to household groups**

Some instruments in net wealth are held essentially by the richest decile.

The vertical lines represent the period of the available household survey (HFCS waves 1 to 3).
4. DWA results

*SNA step 5: derive relevant distributional indicators*

We observe a slight reduction in wealth inequality in recent years.
5. Way forward
(and prospects for the future)
5. Way forward

Already in progress → extension of the data to all euro area countries

Make the results publicly available as experimental data (aimed for end-2023)

Include additional information from other datasets to improve the distributional information (especially the extrapolation process). E.g. consider using a recently developed annual internet survey.

Try adding more breakdowns (e.g., age, income, …).
6. Lessons learnt
6. Lessons learnt

Successful strategies

• Challenging but fruitful communication between micro and macro statisticians → develop bridging / estimates.
• Understand the impact of each step of the model, and not only focus on the final values.
• Harmonised approach across euro area countries.
• Clear interest from users → collecting their feedback.
### 6. Lessons learnt

#### Opportunities

- Some national compilers have taken steps to get access to more administrative data.
- Incorporation of additional data sources (e.g. online surveys, credit card information, ...) might improve estimates of recent quarters.
- Integration of additional distributional information on households from reporting institutions.

#### Challenges

- Users would like to reconcile the wealth data also with income, and savings.
- Uncertainty/margin of error on the recording of housing wealth and land in Sector Accounts for some countries, and individual replies to surveys.
- Completing the coverage of DWA (e.g. currency, pension entitlements).
- The treatment of certain items (e.g. durable goods or social security pensions) in SNA/ESA has a significant impact on net wealth comparisons.
Thank you. Comments welcome!