



EUROPEAN CENTRAL BANK

EUROSYSTEM

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

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UNECE Group of Experts on National  
Accounts  
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# Overview

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- 2 SNA Guidance Note on process to be followed
- 3 DWA compilation approach compared with SNA Guidance Note
- 4 Distributional Wealth Accounts results
- 5 Way forward
- 6 Lessons learnt

# 1. Motivation and timeline of the ESCB project

# 1. Motivation

## Improving the understanding of **wealth inequality**

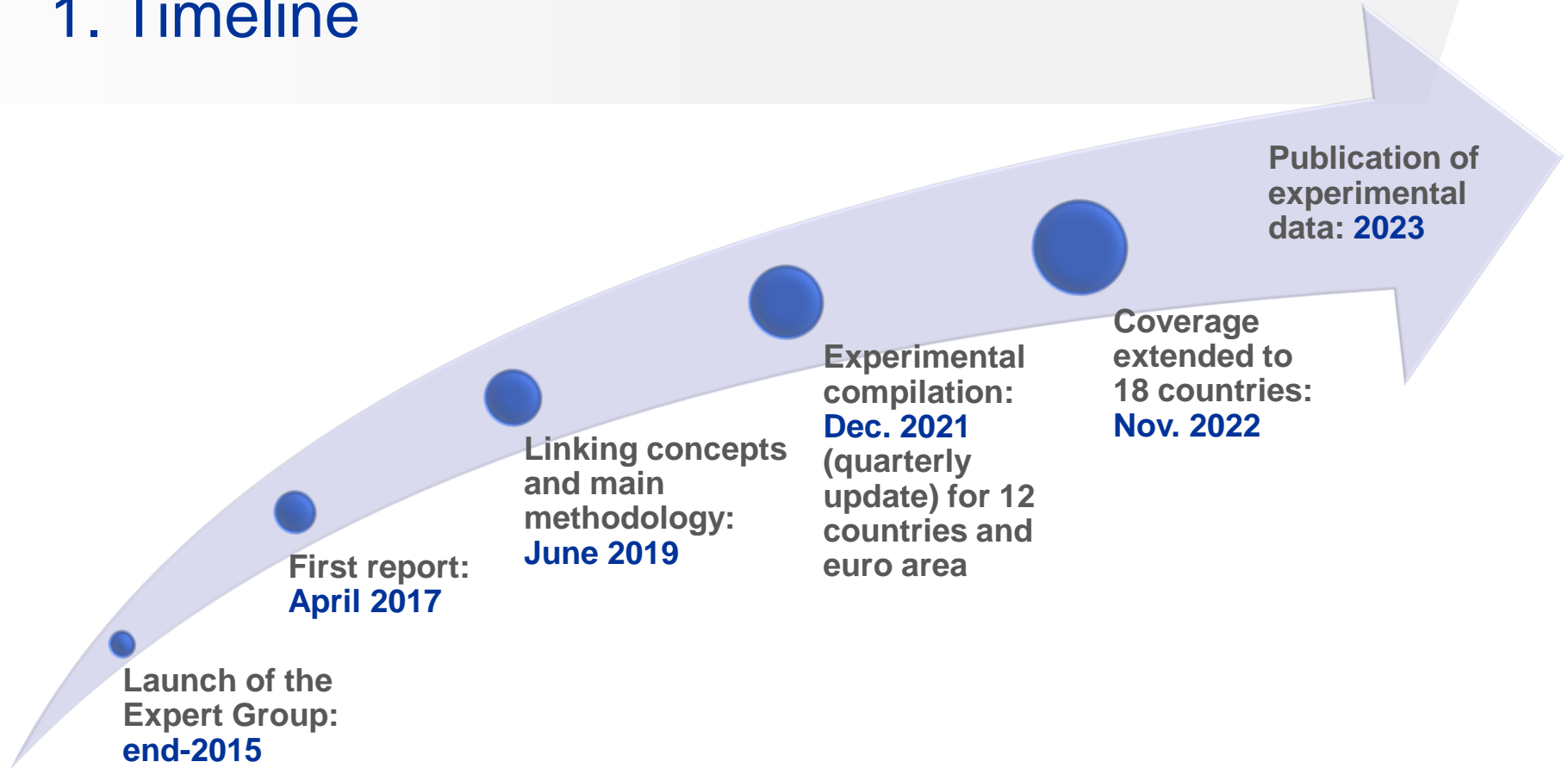
### High demand for distributional data

- 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

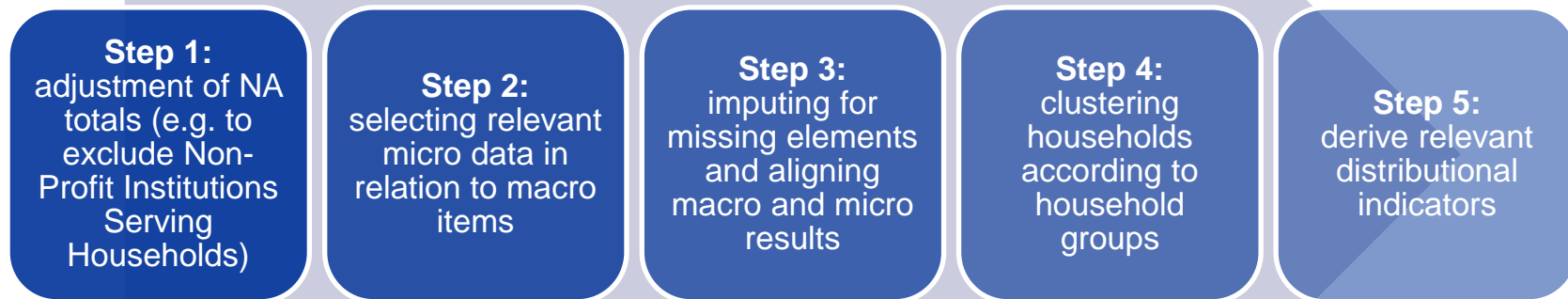


## 2. SNA Guidance

Note on process to be  
followed

## 2. SNA Guidance Note on process to be followed

*SNA Guidance Note: 5 main steps are recommended*



# 3. DWA compilation approach as compared with SNA Guidance

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# 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*

## *Distributional data* **Household Survey**

*(in the euro area:  
HFCS → Household Finance and Consumption  
Survey)*

- Every 3 years since 2010
- 91,000 households in euro area (2017)
- Very detailed results
- Micro data for research
- **Limitation:** Low frequency and timeliness

## *Macro-aggregates*

### **Sector accounts: Financial Accounts and non-financial assets** (QSA)

- Quarterly, starting 1999
- Integrated & exhaustive
- ESA/SNA methodology and breakdowns
- Good frequency and timeliness
- **Limitation:** No breakdown within household sector

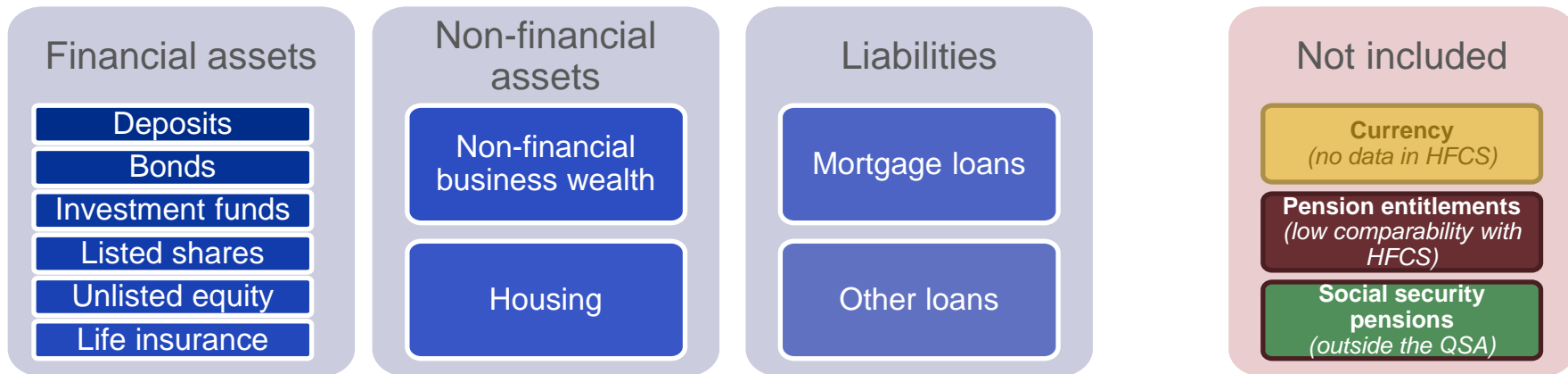
# 3. Compilation approach for DWA

*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*

*Items with low comparability*



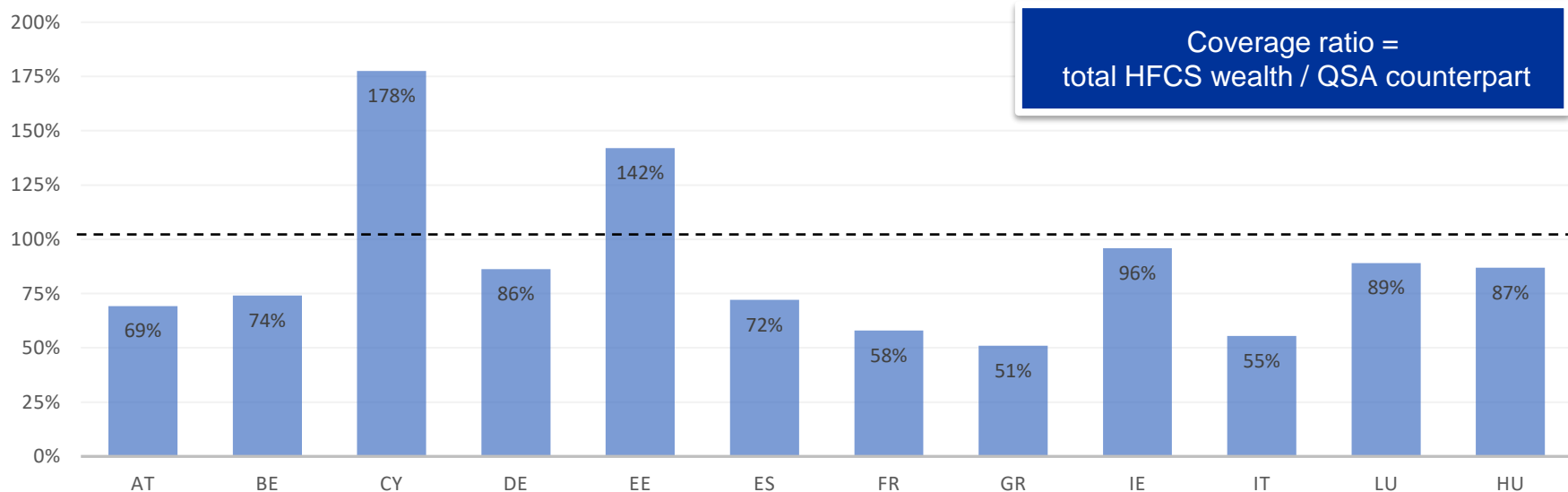
The DWA cover about **90%** of the euro area households' assets and liabilities.

# 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



# 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

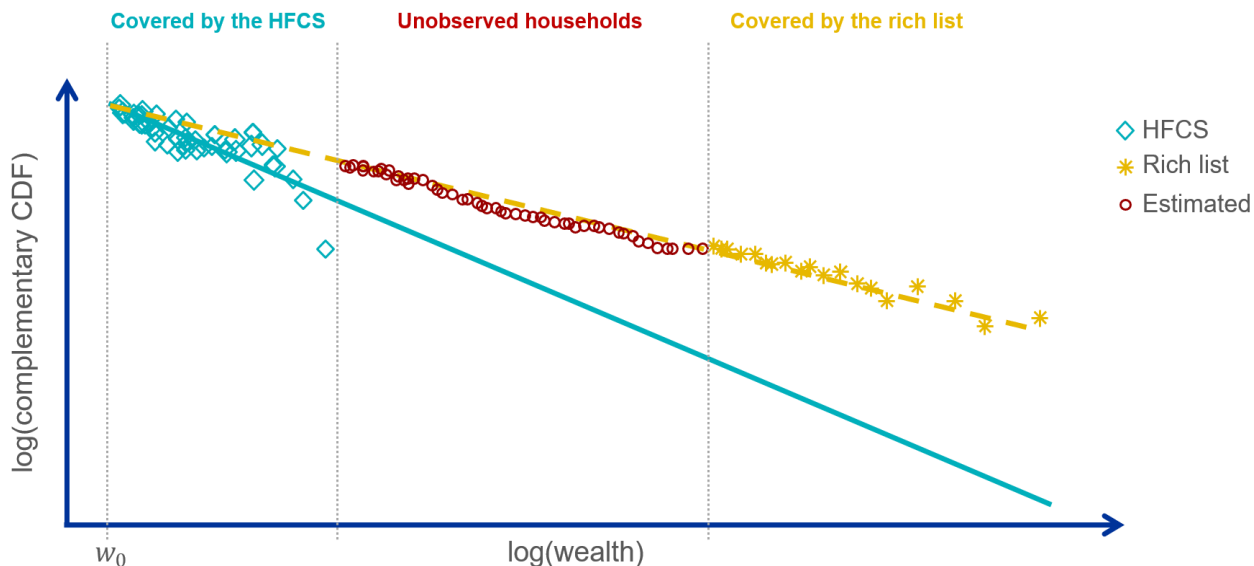
## Missing wealthy households

- 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

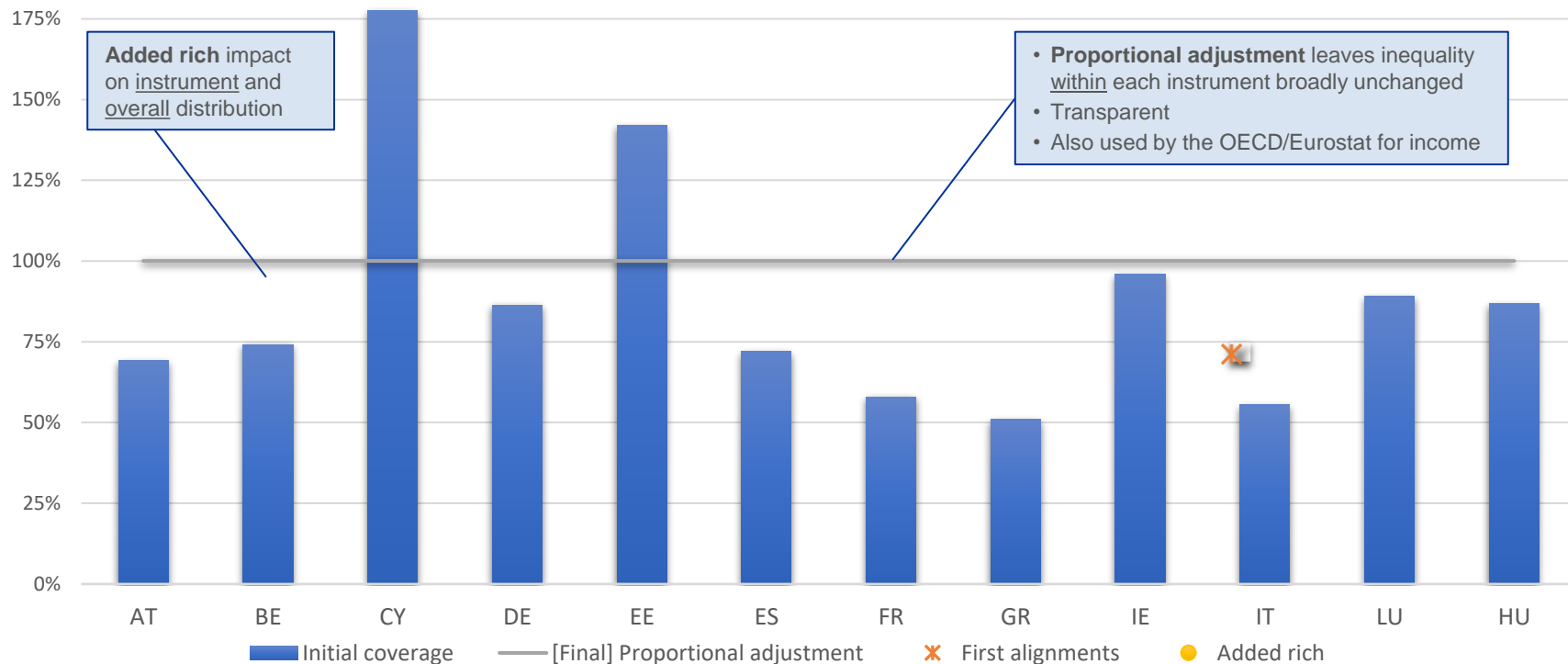
*SNA step 3b: aligning macro and micro results*

## 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)*



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
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Allows to capture some of the short-term changes impacting on distribution (in particular price variations)

## 4. DWA results

# 4. DWA results

*SNA steps 4 and 5: cluster households according to household groups derive relevant distributional indicators*

## 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

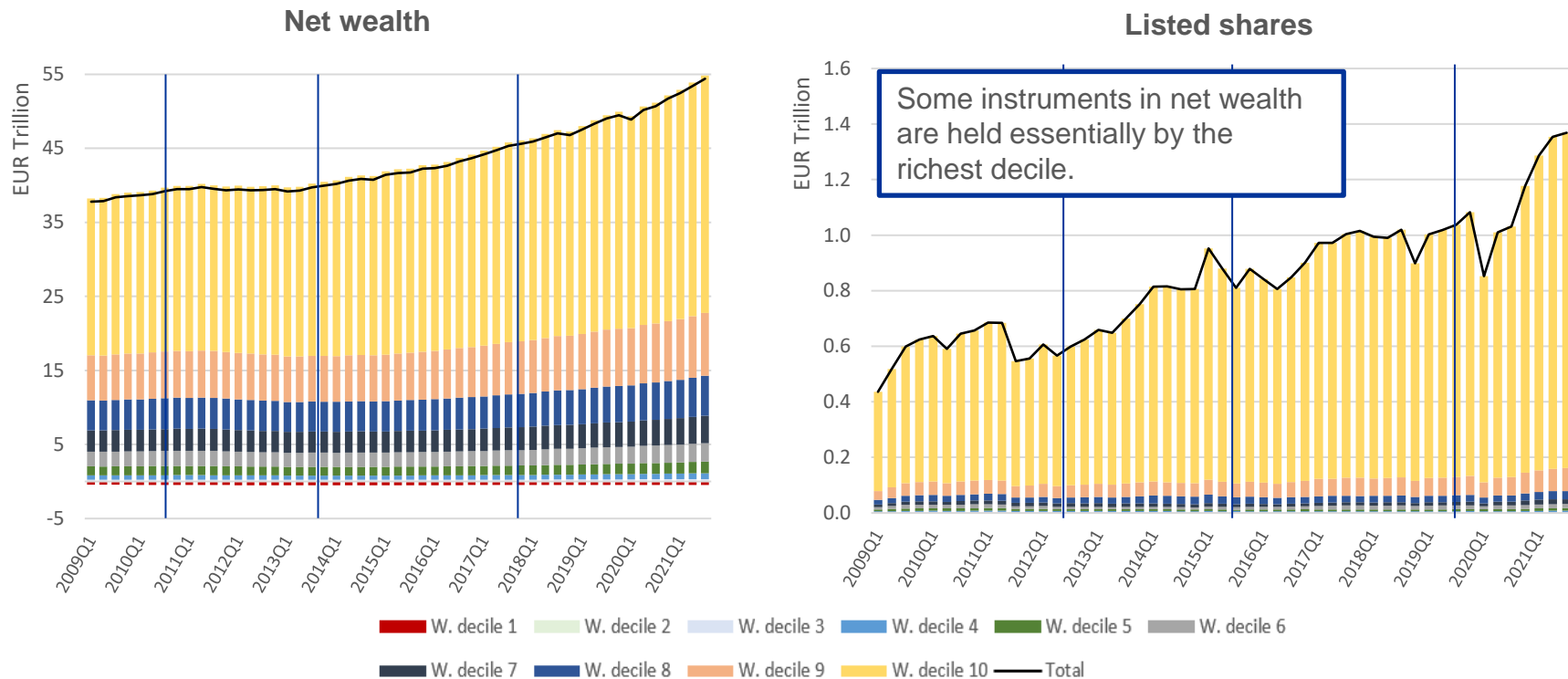
## Housing status:

- 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

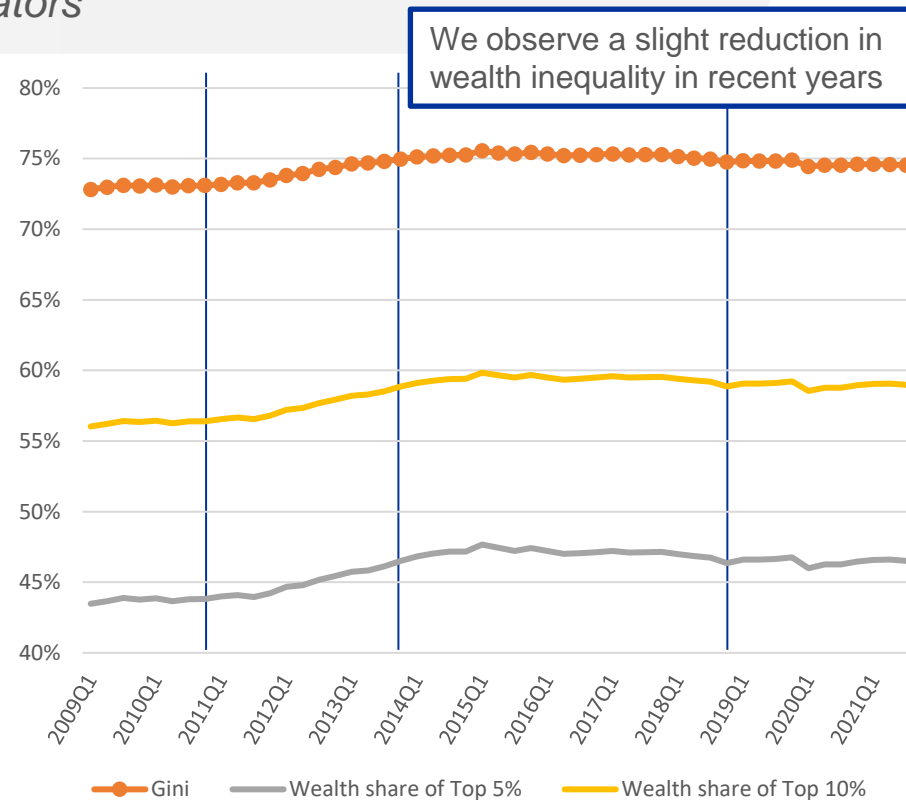
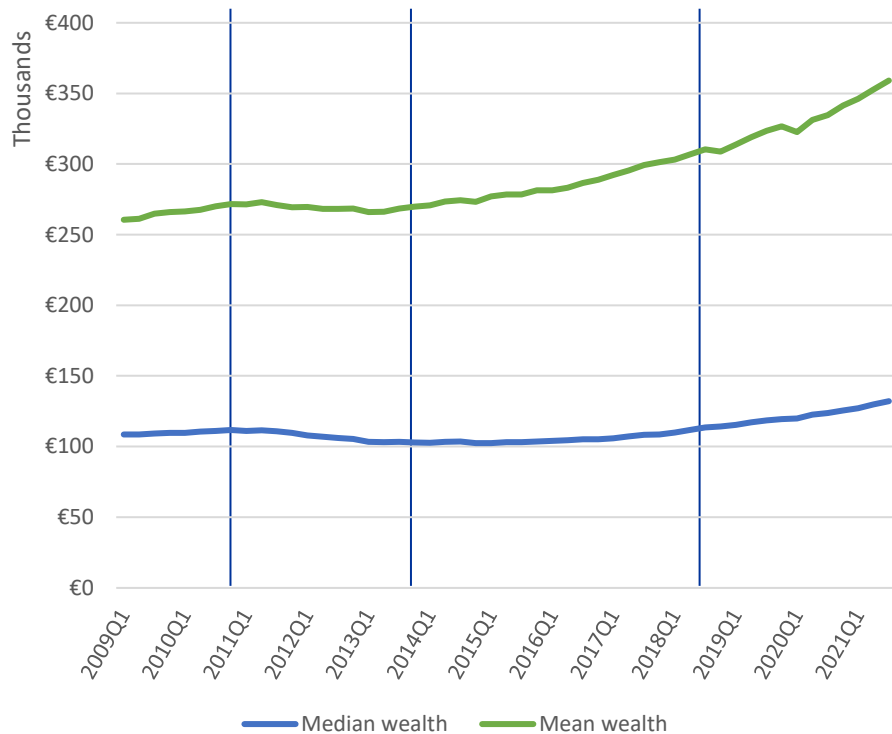
*SNA step 4: clustering households according to household groups*



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*



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

# 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!

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