

# Harmonizing microdata in EU-SILC

**CESSDA PPP Experts Workshop, Paris 3 April**

Harmonization Issues in Comparative Social Surveys



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# 1. Introduction

- Project launched in 2003
  - 2003: Belgium, Denmark, Greece, Ireland, Luxembourg, Austria and Norway
  - 2004: 12 MS plus Estonia, Norway and Iceland
  - 2005: 25 MS plus Norway and Iceland
  - 2007: 27 MS plus Norway, Iceland and Switzerland
- From 2006, comparable cross-sectional information is available for 25 MS plus Norway and Iceland

## 2. EU-SILC framework

### ■ Indicators of social cohesion

At-risk-of-poverty rate after social transfers

At-risk-of-poverty rate before social transfers

At-risk-of-poverty threshold

Dispersion around the at-risk-of-poverty threshold

At-risk-of persistent poverty

Relative median at-risk-of-poverty gap

Inequality of income distribution: S80/S20 (income quintile share ratio)

Inequality of income distribution: Gini coefficient

### ■ Annual data: cross-sectional and longitudinal

### ■ Quality reports

## 3. EU-SILC versus ECHP (1/2)

### ■ Framework:

- ECHP: Gentlemen's Agreement
- EU-SILC: Framework Regulation 1177/2003 + five Commission Regulations

### ■ Standardization:

- ECHP: Blueprint survey
- EU-SILC: Common framework
  - Conceptual
  - Implementation and process
  - Output level

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## 3. EU-SILC versus ECHP (2/2)

### ■ Flexibility:

- ECHP: Minimum
- EU-SILC: Large
  - Data sources: administrative or interviews
  - Survey and sampling design
    - 4 years rotational panel

### ■ Harmonization:

- ECHP: input harmonization
- EU-SILC: ex-post output harmonization

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## 3. Comparability

- Intermediate and final quality reports
  - EU synthesis report
  
- Methodological studies
  - Household definition
  - Administrative versus survey data
  - Mode of data collection
  - Negative income...
  
- Task Forces
  - Imputation techniques
  - Treatment of lump sum
  - Imputed rent
  - Status of private pensions plans in income

# Threats to comparability

1. Basic concepts and definitions
2. Selection process
3. Reference period
4. Fieldwork duration and time lag
5. Components of income
6. Data collection mode
7. Survey versus register countries



# 1. Basic concepts and definitions

- Reference population
  - All countries standard definition
- Private household
  - Five exceptions: Germany, Spain, Italy, Austria, United Kingdom
- Household membership
  - Seven exceptions: Germany, Spain, Italy, Austria, United Kingdom, Portugal, Slovenia

→ Little impact on comparability

## 2. Selection process

- Addresses → Households

- Individuals → Households

- Tax households

→ Could have an impact on comparability

- Ex. Unequal probability of selection between household of different sizes

# 3. Reference period

## ■ Income

- Fixed reference period
- 12 months moving reference period

## ■ Taxes

### – Income taxes

- A. Income tax paid/received during the income reference period
- B. Income tax paid/received related to the total income received during the income reference period

### – Taxes on wealth

→ Impact of these differences has been qualified as minor by the methodological Task Force

## 4. Fieldwork duration and time lag

- Fieldwork duration
  - One shot survey
  - Continuous survey
- Time lag
  - Below 6 months
  - Above 6 months

→ Could hinder comparability

# 5. Components of income

## ■ Self-employment income

- Business account
- Tax declaration
- Money drawn out from business
- Marco di Marco, Statistics Italy: “Self-employment incomes in the Italian EU-SILC”

## ■ Gross-net conversion

- Not standardised
- From 2007 gross components are mandatory

## 6. Data collection mode

	PAPI	CAPI	CATI	Self-administrated
Austria	0.0	94.6	5.4	0.0
Belgium	0.0	100.0	0.0	0.0
Cyprus	0.3	99.7	0.0	0.0
Czech Republic	99.1	0.0	0.0	0.9
Estonia	0.3	94.1	0.1	5.5
Finland	0.0	3.0	97.0	0.0
France	0.0	100.0	0.0	0.0
Germany	0.0	0.0	0.0	100.0
Denmark	0.0	0.0	95.1	4.9
Greece	72.4	25.9	1.7	0.0
Hungary	100.0	0.0	0.0	0.0
Iceland	0.0	0.0	100.0	0.0
Ireland	0.0	100.0	0.0	0.0
Italy	100.0	0.0	0.0	0.0
Latvia	98.9	0.0	0.0	1.1
Lithuania	97.2	0.0	1.2	1.6
Luxembourg	100.0	0.0	0.0	0.0
Malta	11.4	88.6	0.0	0.0
The Netherlands	0.0	0.0	100.0	0.0
Norway	0.0	0.8	99.2	0.0
Poland	100.0	0.0	0.0	0.0
Portugal	7.0	93.0	0.0	0.0
Spain	0.0	95.6	4.4	0.0
Sweden	54.9	0.0	45.1	0.0
Slovakia	99.4	0.0	0.0	0.6
Slovenia	100.0	0.0	0.0	0.0
United Kingdom	0.0	100.0	0.0	0.0

## 7. Survey versus register countries

- Matthias Thill, Statistics Austria: “Aggregate wealth and regional poverty – a new perspective on income poverty lines in Europe”
- Veli-Matti Törmälehto, Statistics Finland: “Measurement of property income in EU-SILC”

# Comparability studies

<b>Austria</b>	Analysis of CATI mode on comparability Analysis of different method for imputed rent
<b>Bulgaria</b>	Impact of self-employment income measurement and non cash income components Impact of under coverage in agriculture, of grey economic Comparability between EU-SILC and NA, administrative data and other surveys
<b>Czech Republic</b>	Impact of panel attrition Comparability of imputed rent
<b>Denmark</b>	Comparability between survey and register data Impact of selection method on household delimitation
<b>Estonia</b>	Impact of alternative selection design. Coherence of EU-SILC income data
<b>Finland</b>	Impact of calibration on income distribution and social cohesion indicators
<b>France</b>	Comparability of EU-SILC and fiscal data
<b>Greece</b>	Comparison of income structure between EU-SILC and HSB/Earning survey
<b>Latvia</b>	Impact of sampling method on SILC
<b>Poland</b>	Impact of imputation methods / Impact of imputed rent Coherence between EU-SILC and HBS
<b>Slovakia</b>	Comparability of survey data and administrative data Coherence between SILC and HBS, NA, ESSPROSS and LFS
<b>Spain</b>	Impact of Sienna Simulation Model on Gross net conversion



## 4. Conclusion

- Ex-ante output harmonization
- Flexibility of national implementation
- Trade-off: flexibility – comparability

→ At this stage, EU-SILC is still considered as a good trade-off among the related dimensions despite in some specific areas input harmonisation would noticeably improve comparability

# Thank you

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