



The Information Manager

Coherence Assessment of EU-SILC in Austria

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Is coherent income data more credible?

For policy:

- Income data inform economic and social policies
- Consistent policies require consistent data
- Conflicting information provokes doubt (but also thought !)

For data producers:

- Indication of the validity of results
- Understanding for data deficiencies
- Increases ‚trust‘ in the data
- Demand for improved harmonisation in the future

⇒ **Coherence assessment is important exercise**

(consistency is secondary !)

Coherence of main sources in Austria

➤ EU-SILC – current wave

➤ Previous waves of EU SILC (from 2003)

➤ Population Census

➤ Labour Force Survey (Microcensus sample)

➤ Household Budget Survey (sample survey)

➤ Tax Register Statistics (4 mio employees)

➤ National Accounts

Causes for inconsistencies?

1. Conceptual:

- Different concepts of income measurement
- Reference period

2. Data collection:

- Coverage problems in the sampling frame
- Measurement errors
- Unit Non-Response
- Item Non-Response
- Errors in the data editing process (weighting, imputation, programmes)

3. Sampling variability

Selected parameters for coherence assessment

Basic:

- Education
- Main activity
- Tenure Status
- Household Size

Income data:

- Number of income recipients
- Distribution of income
- Total amount of income

To follow: illustrative example for coherence of assessment of employee's income and total income in tax register and national accounts

Employee income recipients

Employee Income Recipients (absolute numbers in 1.000)

	total	women	men
EU-SILC 2004 (py010g)	3.457	1.563	1.894
Tax Register 2003	3.572	1.635	1.937
	-	-	-
EU-SILC 2005 (py010g)	3.528	1.592	1.936
Tax register 2004	3.604	1.657	1.948
Tax register 2004 (22 days+)	3.531	1.624	1.907

note: Statistics of Wage Tax, w without apprentices

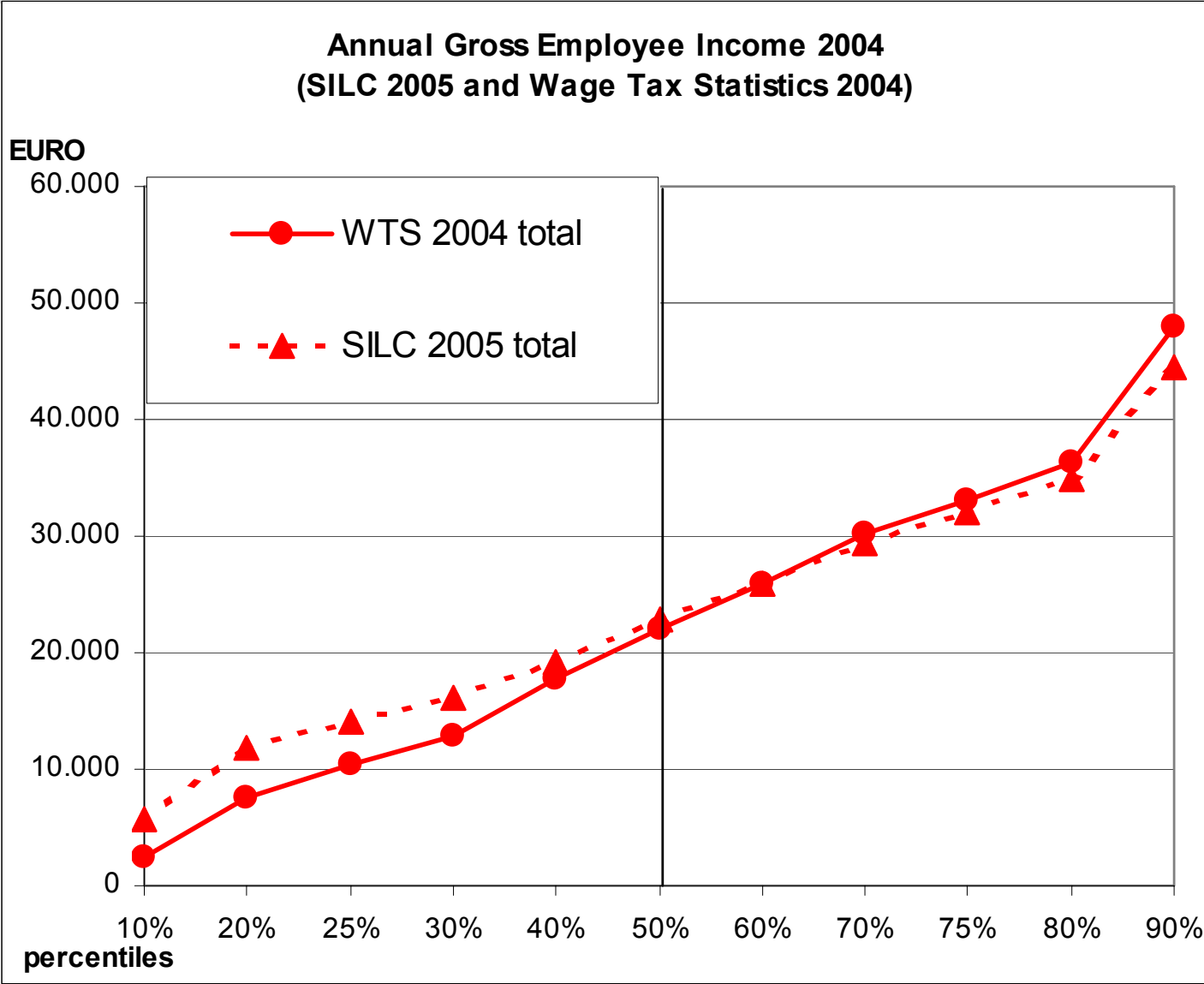
Lack of comparability:

- wage statistics may include „fake employees“
- EU-SILC „small amounts“ difficult to remember

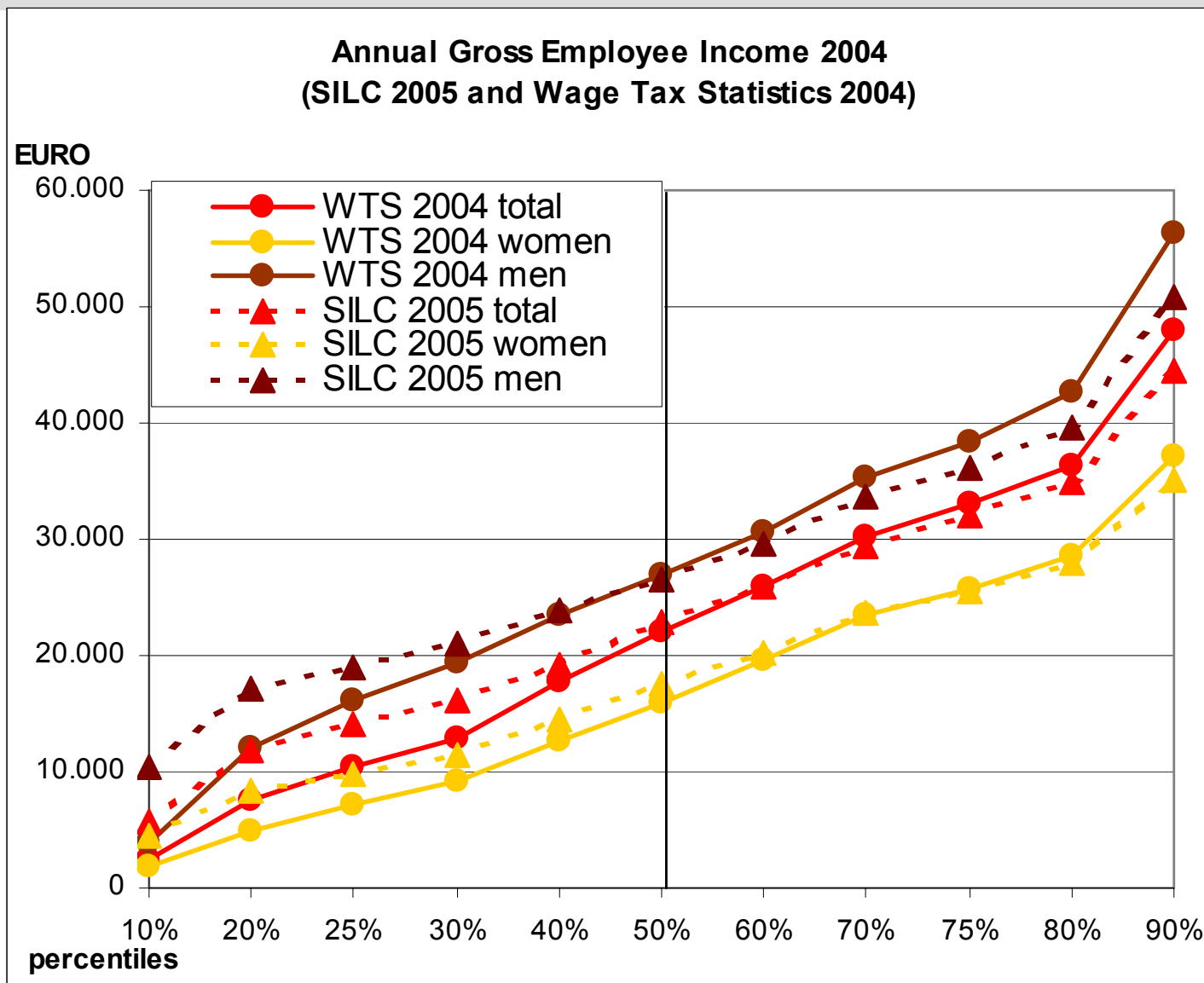
2005 introduction of show cards to activate the memory, more employee incomes in SILC were registered

73.000 persons in tax register received less than 22 days
=> excluding „low incomes“ produces equivalent numbers!
 (still missing 32.000 women, excess 31.000 men)

Distribution of annual gross employee income 2004



Distribution of annual gross employee income 2004



Coherence assessment of employee incomes

- High coherence for number of recipients
- Overestimation of incomes below median in EU_SILC
 - underreported low incomes (lack of memory),
 - artificial overreporting in the Tax Register;
 - Proxy information
- Underestimation of incomes above the median in EU-SILC, in particular for men
 - Possible gender bias in proxy information
 - Underreporting of lump-sums in EU-SILC
- **Good overall representation of employee's incomes**

Total EU-SILC income coverage of National Accounts

Comparison of National Accounts 2003 and EU-SILC 2004 (in million Euro)

	Gross incomes of private households		Disposable income
	Total	without property income	
Estimate from national accounts	167.148	149.836	126.064
Estimate from EU-SILC 2004	141.419	140.970	103.348
Difference between NA and EU-SILC 2004	15.4%	5.9%	18.0%

notes: SNA estimates based on non-financial private household and non-profit organisation sector (s13+s14), reduced by ad-hoc estimates for NPO incomes, institutionalised households, liquidation of reserves and imputed rent

Suspected main reasons for underestimation:

- Income from property
- Income from self employment

Immediate consequences - capital income

➤ Revised order of appearance of hy090 in SILC 2005

➤ Adaptation of question wording :

2004: *Please tell me if you had any of the following incomes?*

Income from interests yes/no

Income from dividends yes/no

Please tell me how much your income from interests was? gross and net

2005: *Did you own one or several of the following assets in 2004:*

Saving book, saving contract, shares, options, licences, etc.

If yes: All in all what was your net profit 2004?

➤ Results:

Gross income from capital (hy090+hy040)

	households	billion euro	median euro
SILC 2004	981,000	2.2	250
SILC 2005	2,717,000	2.9	125

EU-SILC Austria, 2005 preliminary results

Conclusions & Challenges ahead

- coherence assessment stimulates :
 - critical quality assessment
 - improved data collection
 - Improvement of measurement, eg. question on capital income
 - assure high response rates
 - keep proxy information to a minimum
 - harmonisation
 - further research
 - Special coherence assessments for self employed income
- coherence assessment requires:
 - Robust reference sources
 - Transparent procedures (courage!)