GENDER GAP IN PENSION INCOME: CROSS-COUNTRY ANALYSIS AND ROLE OF GENDER ATTITUDES

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Motivation

- Gender pension gap is a relatively new topic: previously the majority of women were viewed as wives, who shared their husband’s benefit / receive the survivor’s benefit.
- The situation changed when divorce rates as well as number of never married women started to increase

+ growth in women’s labour market participation rates

(1) gender gap in pension income is larger than gender gap in wages

(2) only several papers on gender gap cover all EU countries

Paper Contribution

- **Twofold paper contribution:**

(1) evidences on factors shaping the pension gap in Europe

(2) analysis of relationship, i.e. country-level correlations, between gender pension gap and

  - coverage by occupational (the second pillar) pensions to identify whether the tighter link between labour outcomes and pension income supports gender inequality in retirement
  - gender attitudes to identify whether gender attitudes can contribute to accumulative disadvantage of women

Context of the research

- Reforms as a response to increasing dependency ratio
- Reforms include:

>> increasing the retirement age and contribution years
>> decreasing possibilities for early retirement
>> adjustment of the benefits to life expectancy

Privatisation of pension schemes:

- Lower importance of the first pillar (minimum income for poverty reduction)
- Higher importance of the earnings-related second pillar and the third pillar (personal voluntary savings)

Reforms are affecting women and men in the different ways due to different employment patterns.

For example, raising the minimum number of years needed to receive the minimum pension >> puts women at risk of not being able to accumulate enough pension rights due shorter length of careers (because of interruptions related to childbirth, taking care of children and older relatives, i.e. doing “women’s job”).

Theoretical background

1. Concept of cumulative advantage / disadvantage (Crystal et al. 2016):

>> lower attachment to labour market
>> gaps in career due to motherhood
>> lower wages

effects accumulate over the life-cycle →

women have lower pension income and gender gap is quite wide

2. Concept of gender identity (Akerlof and Kranton 2000):

>> individuals act according to cultural models of the typical men's and women's behaviour

gender attitudes influence on economic outcomes of women in labour market →

assumption: in societies with higher level of gender equality support women will be more active in labour market and gap in earnings and pensions will be lower

Methodology

Oaxaca – Blinder (OB) decomposition used for gender gap at means:
Difference in average outcomes between 2 groups can be divided in the explained ($\widehat{\Delta_X^{\mu}}$) and unexplained ($\widehat{\Delta_S^{\mu}}$) component:

$$\widehat{\Delta_O^{\mu}} = \bar{Y}_M - \bar{Y}_W = \widehat{\Delta_S^{\mu}} + \widehat{\Delta_X^{\mu}} = \left[\left(\hat{\beta}_{M0} - \hat{\beta}_{W0}\right) + \sum_{k=1}^{K} \bar{X}_{Wk}\left(\hat{\beta}_{Mk} - \hat{\beta}_{Wk}\right)\right] + \left[\sum_{k=1}^{K}\left(\bar{X}_{Mk} - \bar{X}_{Wk}\right)\hat{\beta}_{Mk}\right]$$

$\bar{Y}_{M/W}$ - mean of income for men/women
$\hat{\beta}_{M/Wk}$ - returns to characteristics
$\bar{X}_{M/Wk}$ - mean values of the independent variables, i.e. observable characteristics (e.g. years of employment)
Additionally, gap was considered over the distribution (at 20th / 50th / 90th percentile).

Data

1. **EU-SILC** 2018 data for calculating gender gap in

- pension income (people 65+). Pension income is a sum of (1) pension from individual private plans; (2) old age benefits and (3) survivor's benefits
- hourly labour income (people 18 – 64). Labour income is a sum of (1) employee cash or near cash income, (2) non-cash employee income and (3) cash benefits or losses from self-employment

2. **European Values Study** 2017 / 2018 data that covers majority of countries included in EU-SILC 2018 sample. This data set includes statements related to support of gender equality, for example "When jobs are scarce, men have more right to a job than women" (1 – "agree strongly" to 4 – "disagree strongly").

Table 1: Countries included in the analysis

EU	Austria, Belgium*, Bulgaria, Croatia, Cyprus*, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece*, Hungary, Ireland*, Italy, Latvia*, Lithuania, Luxembourg*, Malta*, Netherlands, Poland, Portugal*, Romania, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom
non-EU	Iceland, Norway, Serbia, Switzerland

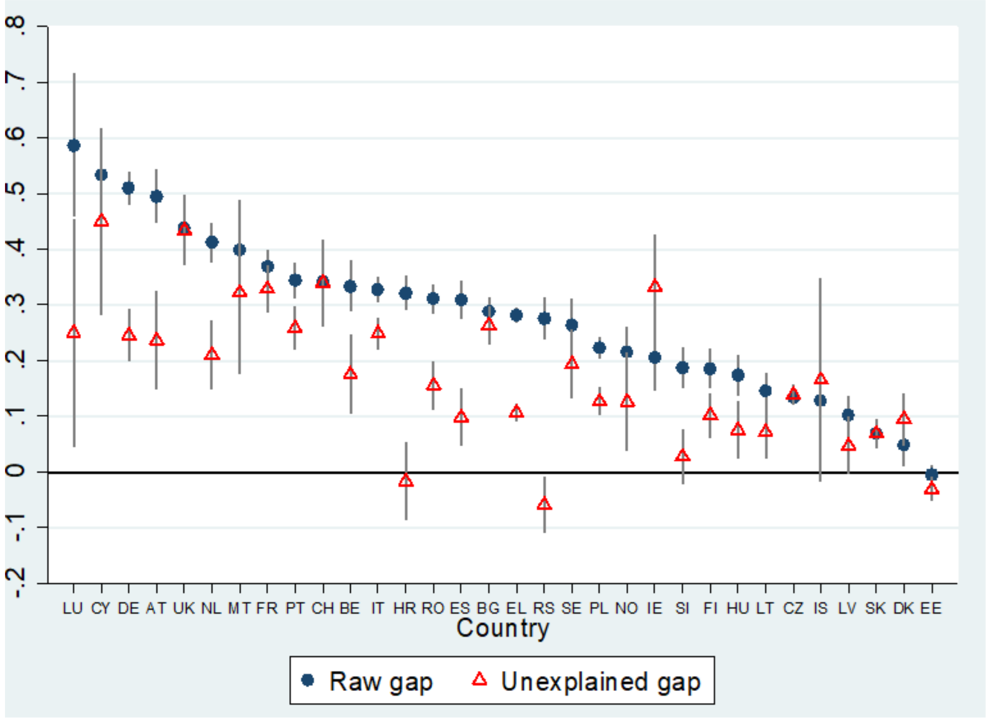
* – countries for which EVS data is not available

Descriptive results

Pension income gender gap

The largest pension gap was found in Luxembourg, Cyprus and Germany. Estonia is a country with the smallest gap in pension income.

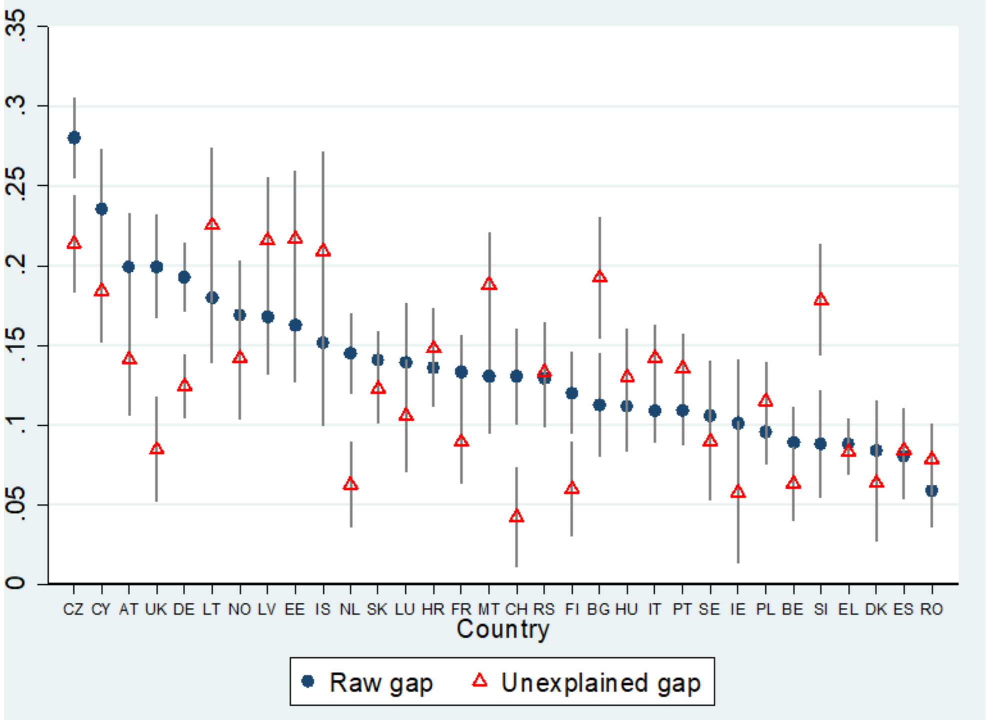
Log difference in pension income



Hourly labour income gender gap

The largest gap in labour income is in Czechia, Cyprus, Austria and the UK.

Log difference in hourly labour income

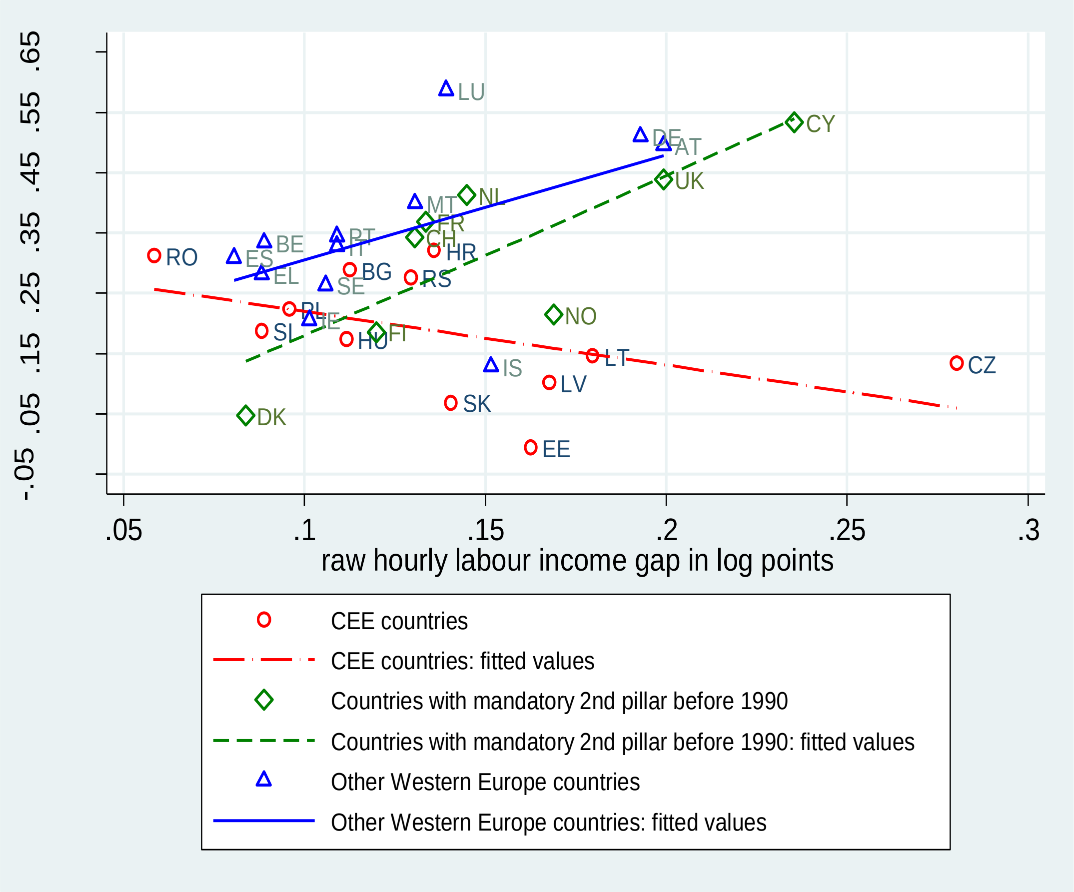


Grouping countries (I)

- No obvious relationship between the gap in hourly labour income and pension income: the Pearson correlation coefficient is low and insignificant (0.1535, p – value: 0.4017) when all countries considered
- Based on relationship between wage gap and pension gap as well as on history of reforming pension systems, it is possible to divide countries into:

Eastern countries (CEE)

- former socialist states: gender equality was a part of party’s policy, meaning that now we observe lower inequality in pension income compared to West
- late movement from PAYG to three-pillar system: was implemented at the end of 90s – beginning of 00s
- inverse relationship between pension and labour income gap: the higher level of hourly earnings gap corresponds to the lower level of the pension gap (raw gap in means: Pearson coefficient is -0.4919, p-value: 0.1043)
- in future when the share of people covered by 2nd pillar will increase >> the gap in pensions can increase

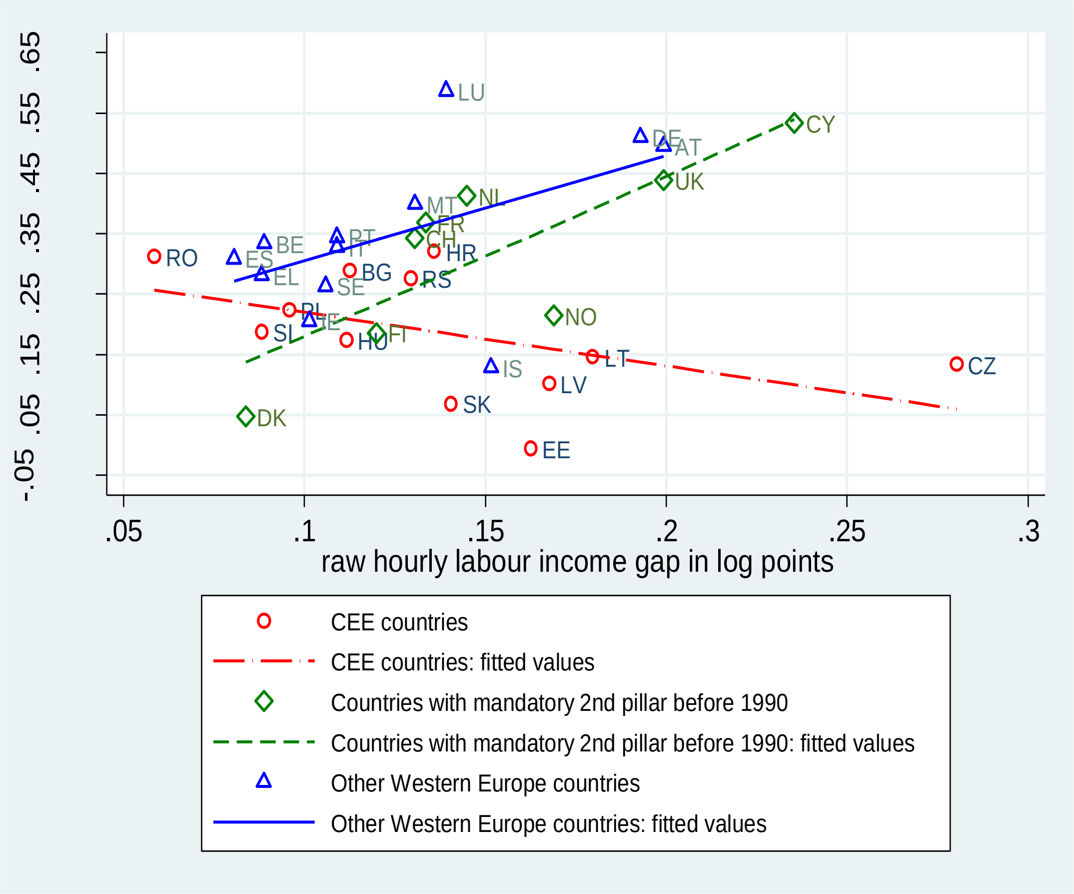


Grouping countries (II)

Western countries

- positive relationship between wage gap and the pension gap
- Countries with mandatory 2nd pillar introduced before 1990*: in these countries the link between pension and income gap is tighter compared to countries in which mandatory 2nd pillar was introduced after 1990 or is voluntary (Pearson coefficient is 0.8042 vs. 0.5228)

*The mandatory second pillar was introduced in the following countries before 1990: the Netherlands, the United Kingdom, France, Finland, Denmark, Norway, Cyprus and Switzerland.



Occupational pension coverage 65+ and gender pension gap

Correlations between gender pension gap and occupational pension coverage

	Share of people covered by occupational pensions
Gender pension raw gap (total mean)	0.419*
Gender pension raw gap (20th percentile)	0.311
Gender pension raw gap (50th percentile)	0.340
Gender pension raw gap (90th percentile)	0.419*
N	18

Source: SHARE values from Pension Adequacy Report (2018) and EU-SILC,
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

- ➢ Higher coverage by occupational pensions correspond to higher pension gap
- ➢ Introduction of the 2nd pillar can lead in future to higher gender inequality in retirement
- *Occupational pension (or second pillar): supplementary retirement income related to labour income during working life* [1]

[1] https://www.europarl.europa.eu/RegData/bibliotheque/briefing/2013/130589/LDM_BRI(2013)130589_REV1_EN.pdf

Gender Attitudes (I)

- Hypothesis: in societies with a higher level of acceptance of gender equality, women are more active on the labour market and demand equal pay with men, and subsequently, the pension gap will be smaller
- Data on gender attitudes: European Values Study (2017/2018). Time problem: current retirees were taking their most important labour market decisions 30 – 40 years ago, but gender attitudes are considered from the 2017 / 2018 wave of the survey.
- However: gender attitudes, as other cultural variables, are changing quite slowly over time

Gender Attitudes (II)

- EVS includes 8 statements related to gender attitudes. For each statement the scale is from 1 – “agree strongly” to 4/5 – “disagree strongly” >> higher values correspond to greater support for gender equality in society

v72 - When a mother works for pay, the children suffer

v73 - A job is alright but what most women really want is a home and children

v74 - All in all, family life suffers when the woman has a full-time job

v75 - A man's job is to earn money; a woman's job is to look after the home and family

v76 - On the whole, men make better political leaders than women do

v77 - A university education is more important for a boy than for a girl

v78 - On the whole, men make better business executives than women do

v81 - When jobs are scarce, men have more right to a job than women

- Based on factor analysis two Gender Equality Acceptance Indexes were constructed in order to rank countries based on the level of gender equality support:

❖ Attitudes to the role of women in family [v72 – v75]

❖ Attitudes to the role of women on the labour market [v76 – v81]

Gender Attitudes (III)

	Unexplained gap (at means)	
	Pensions	Wages
	M+W, 50+	M+W, 18-64
Index 1 (v76 – v81)	-0.610**	-0.365*
Index 2 (v72 – v75)	-0.753***	-0.438**
When a mother works for pay, the children suffer (v72)	-0.725***	-0.346*
A job is alright but what most women want is home and children (v73)	-0.566**	-0.506**
All in all, family life suffers when the woman has a full-time job (v74)	-0.720***	-0.390*
A man's job is to earn money; a woman's job is to look after the home and family (v75)	-0.566**	-0.423**
On the whole, men make better political leaders than women do (v76)	-0.593**	-0.403*
A university education is more important for a boy than for a girl (v77)	-0.577**	-0.383*
On the whole, men make better business executives than women (v78)	-0.505*	-0.359*
When jobs are scarce, men have more right to a job than women (v81)	-0.566**	-0.346*
N	13	24

Source: EVS and EU-SILC, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

- Correlation between unexplained portion of gender pension gap and gender labour income gap are in range 0.2566 to 0.3310 on the level of quantiles.
- This definitely cannot be considered as a strong correlation, but could be a ground for hypothesis that some unobservable, persistent in time, factors shape unexplained portion of labour income and pension income gap
- One of such factors could be gender norms supported in the society
- In societies with higher gender equality support

>> the unexplained gap in labour and pension income is smaller

Conclusions

- Main factor shaping inequality between men and women in retirement is a difference in years of employment with occupations playing secondary role
- Tertiary education: positive contribution to gap in pension income, but negative contribution (gap reduction) in wage gap
- Contrary to Western countries, in CEE countries the relationship between pension and labour income gap is inverse: high labour income gap corresponds to currently low pension gap
- It was found that gender attitudes could contribute to women disadvantage on the labour market
- Social policy implications:

>> privatisation of pension plans can lead to the conversion of the wage gap into a pension income gap

>> increasing retirement age should be accompanied by creating facilities for the care of children and elderly people in order to reduce incentives for women to leave the labour market for long periods

>> activities aimed at changing perception of women on the labour market are important

Thank you.

In case you have any questions:
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