Comments on two papers by Marcin Wroński on: "The Impact of Social Security Wealth on Inequality in the EU and in Poland"

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Summary of two papers in one slide

- Data:
  - Source: HFCS (3rd wave), 19 countries
  - Sample: Retired households (or near retirement); not multi-generational; younger than 85
  - Life expectancy: From Eurostat EUROPOP 2019 (forecast and differentiated by education (for the Polish paper))
  - Discount rate: 2%
  - Additional details: Survivor benefits for Poland
- Results:
  - AW/PW: 228% (EU-average), 234% (Poland).
  - Distribution of AW is more equal. Gini coefficients: 0.6 (PW) to 0.41 (AW) for EU-average, 0.49 (PW) to 0.33 (AW) for Poland. A decrease of 30% (33%).
  - Cross-country differences due to the extent of PW inequality, the size of public pensions, household size, homeownership.
  - Between-country inequality more important than within-country inequality.
  - Effect of heterogeneous life expectancy is small

Two crucial issues for the calculation of augmented wealth

- The scope of augmented wealth: Which additional assets? Which age groups? Which time horizon?
- Uncertainty and the choice of the discount rate

The scope of augmented wealth

- The basic question: Which additional items should be contained in "augmented wealth"?
- Focusing only on pension entitlements:

  (i) which pensions entitlements (public, occup., private)?
  (ii) which households (all, only pensioners)?

  In the papers by Marcin Wroński the selections are:

  (i) public and private,
  (ii) households where all members are retired.
- The exclusion of non-retired households is likely to:
  - exaggerate the increase in augmented wealth,
  - exaggerate the reduction in inequality,
  - hamper international comparisons (e.g. if there are differences in demography, average retirement age,...)

Illustrative calculations for Austria

Paper	**Wroński 23**
Data source	HFCS 2017
Sample	Retired
Obs.	862
Discount rate	2%
	Mean values for private, pension and augmented wealth (in €)
PW	**191,739**
SSW	**422,738**
AW	**614,478**
AW/PW	**320%**
	Gini coefficients for private, pension and augmented wealth
PW	**0.67**
SSW	**0.33**
AW	**0.39**
AW/PW	**-42%**

Illustrative calculations for Austria

Paper	**Wroński 23**	**Knell/Koman 22**
Data source	HFCS 2017	HFCS 2017
Sample	Retired	All
Obs.	862	3,072
Discount rate	2%	3%
	Mean values for private, pension and augmented wealth (in €)	
PW	**191,739**	**250,272**
SSW	**422,738**	**245,051**
AW	**614,478**	**495,324**
AW/PW	**320%**	**198%**
	Gini coefficients for private, pension and augmented wealth	
PW	**0.67**	**0.73**
SSW	**0.33**	**0.45**
AW	**0.39**	**0.53**
AW/PW	**-42%**	**-27%**

Illustrative calculations for Austria

Paper	**Wroński 23**	Own 23
Data source	HFCS 2017	HFCS 2017
Sample	Retired	Retired
Obs.	862	984
Discount rate	2%	2%
	Mean values for private, pension and augmented wealth (in €)	
PW	**191,739**	196,905
SSW	**422,738**	360,235
AW	**614,478**	557,140
AW/PW	**320%**	283%
	Gini coefficients for private, pension and augmented wealth	
PW	**0.67**	0.65
SSW	**0.33**	0.33
AW	**0.39**	0.39
AW/PW	**-42%**	-40%

Illustrative calculations for Austria

Paper	**Wroński 23**	Own 23	Own 23
Data source	HFCS 2017	HFCS 2017	HFCS 2017
Sample	Retired	Retired	All
Obs.	862	984	3,072
Discount rate	2%	2%	2%
	Mean values for private, pension and augmented wealth (in €)		
PW	**191,739**	196,905	250,272
SSW	**422,738**	360,235	290,122
AW	**614,478**	557,140	537,403
AW/PW	**320%**	283%	215%
	Gini coefficients for private, pension and augmented wealth		
PW	**0.67**	0.65	0.73
SSW	**0.33**	0.33	0.43
AW	**0.39**	0.39	0.51
AW/PW	**-42%**	-40%	-30%

Illustrative calculations for Austria

Paper	**Wroński 23**	Own 23	Own 23	**Knell/Koman 22**
Data source	HFCS 2017	HFCS 2017	HFCS 2017	HFCS 2017
Sample	Retired	Retired	All	All
Obs.	862	984	3,072	3,072
Discount rate	2%	2%	2%	3%
	Mean values for private, pension and augmented wealth (in €)			
PW	**191,739**	196,905	250,272	**250,272**
SSW	**422,738**	360,235	290,122	**245,051**
AW	**614,478**	557,140	537,403	**495,324**
AW/PW	**320%**	283%	215%	**198%**
	Gini coefficients for private, pension and augmented wealth			
PW	**0.67**	0.65	0.73	**0.73**
SSW	**0.33**	0.33	0.43	**0.45**
AW	**0.39**	0.39	0.51	**0.53**
AW/PW	**-42%**	-40%	-30%	**-27%**

Illustrative calculations for Austria

Paper	**Wroński 23**	Own 23	Own 23	**Knell/Koman 22**	Own '23
Data source	HFCS 2017	HFCS 2017	HFCS 2017	HFCS 2017	HFCS 2017
Sample	Retired	Retired	All	All	Retired
Obs.	862	984	3,072	3,072	984
Discount rate	2%	2%	2%	3%	3%
	Mean values for private, pension and augmented wealth (in €)				
PW	**191,739**	196,905	250,272	**250,272**	196,905
SSW	**422,738**	360,235	290,122	**245,051**	329,882
AW	**614,478**	557,140	537,403	**495,324**	526,787
AW/PW	**320%**	283%	215%	**198%**	268%
	Gini coefficients for private, pension and augmented wealth				
PW	**0.67**	0.65	0.73	**0.73**	0.65
SSW	**0.33**	0.33	0.43	**0.45**	0.33
AW	**0.39**	0.39	0.51	**0.53**	0.39
AW/PW	**-42%**	-40%	-30%	**-27%**	-40%

Using work history

- It is often difficult to calculate pension entitlements for workers.
- Problem: Precise matching is not possible; survey responses are unreliable. The use of rudimentary questions about work history might be a good alternative ("How many years have you been working for the entire (or most parts of the) year?").

Information about pensions	Stat. Matching	Survey Response	Work History
	Mean values for private, pension and augmented wealth (in €)		
PW	**250,272**	250,272	250,272
SSW	**245,051**	245,493	246,002
AW	**495,324**	495,766	496,274
	Gini coefficient for augmented wealth		
AW	**0.53**	0.52	0.53

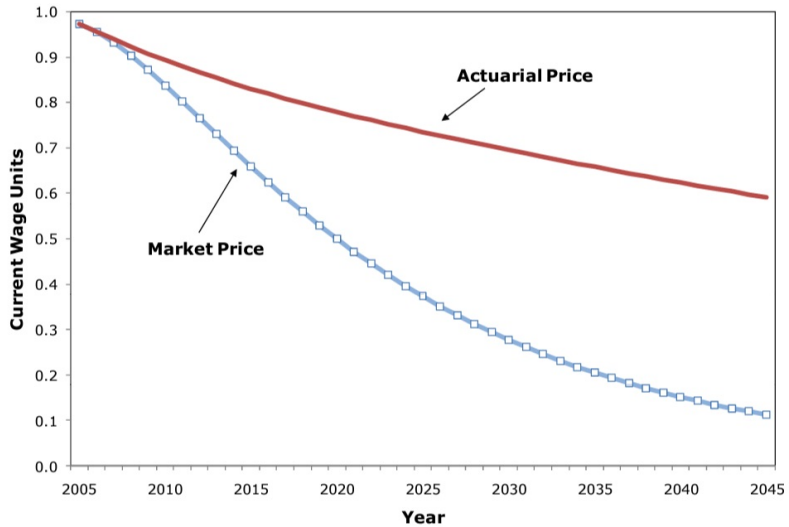
Uncertainty and the choice of the discount rate

- The papers chooses $r = 2\%$.
- There is no consensus in the literature about the right choice.
- "Present value estimates for an asset should be derived using a conservative discount rate, such as a risk-free government bond rate" (OECD, Guidelines for Micro Statistics on Household Wealth, 2013). Because,...?
- The paper argues that for pensioners there is less uncertainty: "The value of the public pension wealth of the working population may change rapidly. [...] In the case of pensioners, the impact of pension reforms on the value of public pension, wealth is limited".
  - Higher discount rate if the the working population is included?
  - Ongoing pensions are sometimes/often affected by pension reforms (e.g. switch from wage adjustment to price/delayed/no adjustment).
  - [As an aside: what is assumed about pension adjustment in the paper? Constant *real* value? Not true for GER, NLD,...]

Discount rate — Adjustment for wage risk

- "We argue that in the long run, per capita wages, per capita consumption, and the value of the stock market are likely to be tightly correlated, in which case financial markets would add a risk-premium to the discount rate (or set of discount rates) used to value wage-indexed streams, decreasing the present value of the cash flows relative to the 'actuarial approach' that uses the risk-free rate for discounting" (Geanakoplos and Zeldes, 2011).

Figure 1: Wage Bond Prices



Discount rate — Adjustment for pension reform risk

- Luttmer and Samwick (2018) estimate the "risk premium for policy uncertainty in Social Security wealth".
- They use a survey to "elicit both the expected policy and the certainty equivalent of uncertain future policy and use the difference between these two measures as the individual's risk premium of the policy uncertainty".
- Results: "Across respondents, the average expected benefits are 59.4 percent of the benefits the respondents are supposed to get under current law. [...] The average certainty equivalent is 53.7 percent, yielding an average risk premium of 5.8 percent."

Pension reform hodgepodge in Poland

- Buchholtz et al. (2019), "The Polish NDC Scheme: Success in the Face of Adversity"

Pre-reform	High pension expenditure, low retirement age, low employment particularly among people 50+ (partially due to economic transition offset)
1999	new pension system introduced changing the PAYG DB to NDC+FDC scheme for people born in 1949 or later with OA contribution 19.52% of wages (12.22% + 7.3%)
2008	End of the transition period, reduction of early retriement possibilities (initially planned in 2006)
2011	reduction of FDC contribution to 2.3%, establishment of NDC2 accounts
2013	raising and equalising retirement ages from 60/65 to 67
2014	FDC contribution changed to 2.92% More than half of assets (government bonds) transferred to PAYG and redeemed FDC part made opt-out and opt-in Assets from FF transferred gradually to PAYG 10 years prior to retirement ('slider' mechanism)
2017	Reversal of the retirement age increase
2019	Introduction of Employee Capital Accounts - PPKs (autoenrollment additional pension savings 13th pension (1100 PLN) paid to all pensioners in May (just before European Parliament elections) Proposal to transform FDC funds to voluntary individual pension accounts

Source: Chłoń-Domińczak (2019), "Case study of pension reform: Poland"