



UNIVERSITY OF LUXEMBOURG  
Integrative Research Unit on Social  
and Individual Development (INSIDE)

# GENERATIONAL INEQUALITIES AND WELFARE REGIMES IN 17 COUNTRIES

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## **General question of research on cohort inequalities: Economic crises and the integration of new cohorts.**

- Scarring effects of youth unemployment.
- The post 1975- economic slowdown and its effect on cohort-integration: What can we expect from the post-2009 crisis?
- Do states differ in how well they could integrate new cohorts or do we see more pronounced insider-outsider dynamics in some countries?
- Are some generations sacrificed or do cohorts with a bad start catch up?



## **Previous paper:**

### **France:**

Literature argues that later cohorts are disadvantaged compared to early-born ones.

### **Germany and the US:**

Studies show that later-born cohorts have more intra-cohort inequality. But inter-cohort inequality (inequality between cohorts) are an open question.

### **Open question:**

**Are some generations unduly advantaged over others?**



## **Data**

### **Dependent variable**

We want to explain the living standards of members of different cohorts:  
Variable “dpi” (disposable personal income) from the Luxembourg Income Study.

Logged and divided by the square root of household members and adjusted for inflation: reflects household-equalized real disposable personal income after taxes and transfers.

### **Independent variables**

Cohort-membership of respondent (date of birth).

Plus controls for: age, period of measurement, ISCED codes for education, sex, partner in household, number of children, immigrant-status.

### **Main interest**

How much does the mere date of birth (cohort membership) influence living standards?



## **Methodological background: Cohorts models**

Idea from Karl Mannheim: Social change should be understood as the replacement of one birth cohort by another.

Birth cohorts (people being born at a similar time) share a similar socialization, labor market entry etc. They can even be scarred by having lived through similar events (such as birth cohorts that grew up in the Second World War).



## **Statistical background: Age Period Cohort models**

Separate the effects of age, period of measurement and cohort.

Problematic collinearity:

$\text{cohort (date of birth)} = \text{period (date of measurement)} - \text{age}$

(Ryder 1965, Mason et al. 1973, Mason / Fienberg 1985,  
Yang Yang et al. 2006 2008, Pampel 2012)

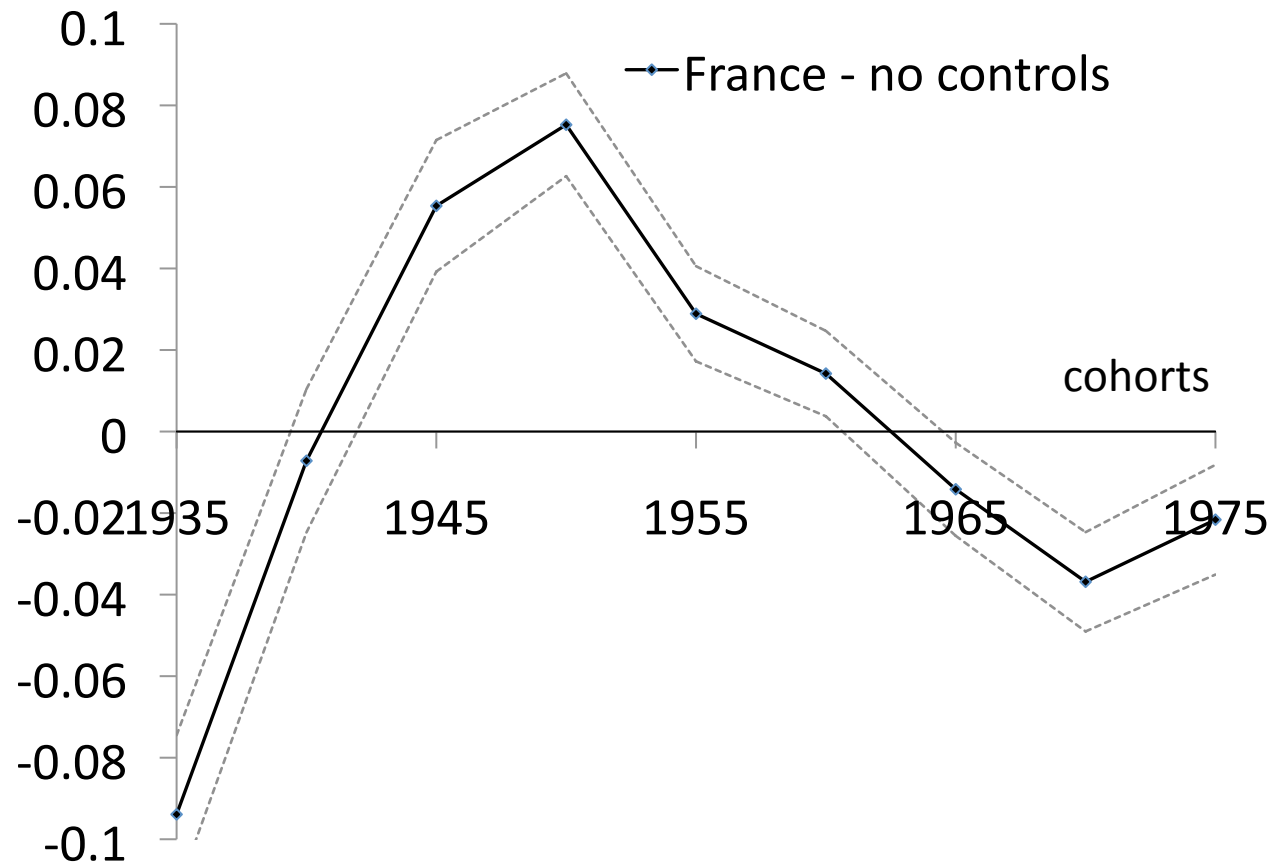


## Our method A: APCD

APCD (detrended): are some cohorts above or below a linear trend of long-run economic growth? Basically, the APCD is a ‘bump detector’.

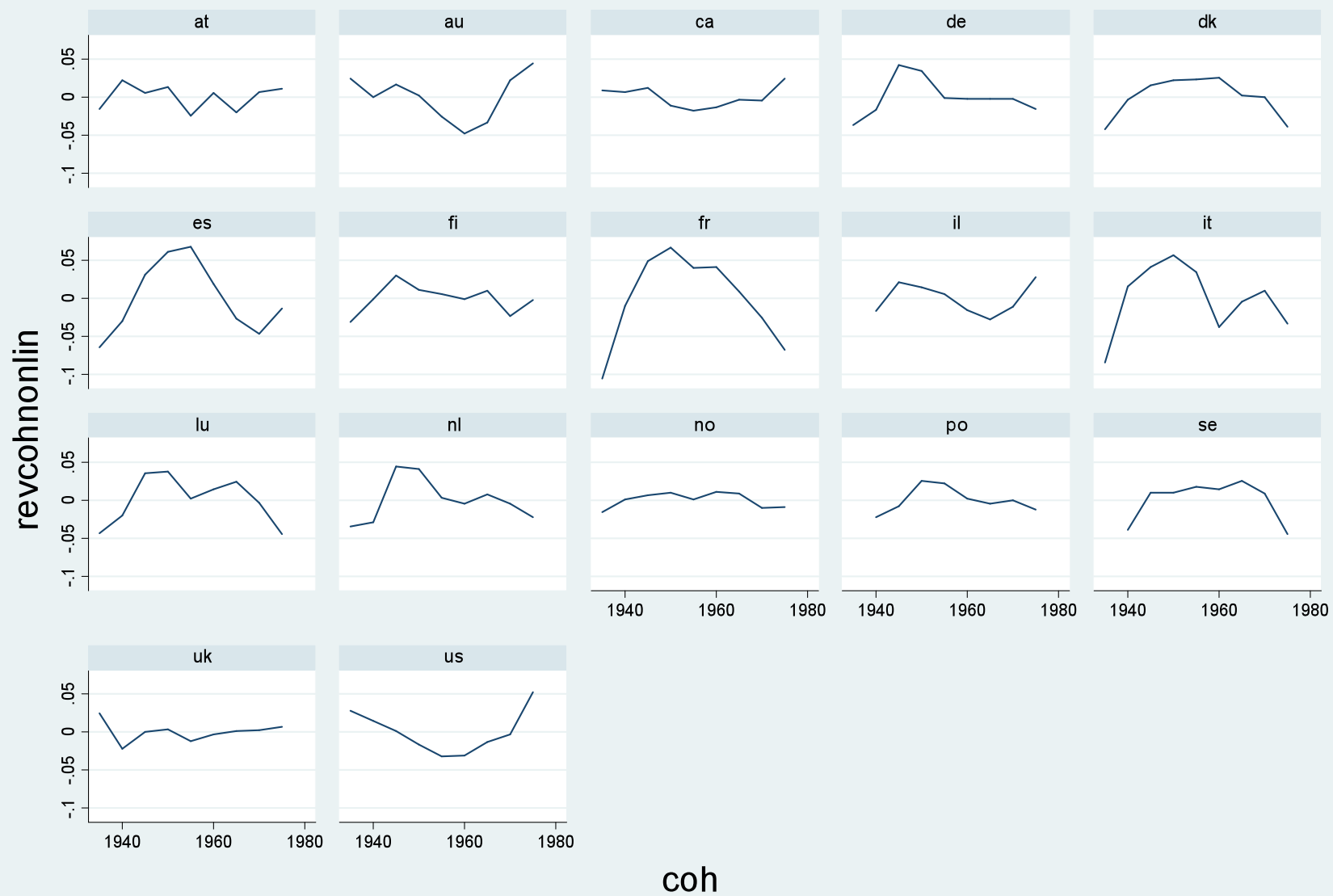
$$\left\{ \begin{array}{l} y^{apc} = \alpha_a + \pi_p + \gamma_c + \alpha_0 \text{rescale}(a) + \gamma_0 \text{rescale}(c) + \beta_0 + \sum_j \beta_j x_j + \varepsilon_i \\ p = c + a \\ \sum_a \alpha_a = \sum_p \pi_p = \sum_c \gamma_c = 0 \\ Slope_a(\alpha_a) = Slope_p(\pi_p) = Slope_c(\gamma_c) = 0 \\ \min(c) < c < \max(c) \end{array} \right. \quad (\text{APCD})$$

APCD (detrended) cohort coefficient of disposable per uc income





## APCD (detrended) cohort coefficient of disposable per uc income



Graphs by iso

**Figure 1: Standard deviation of cohorts from disposable incomes trend before and after controls**

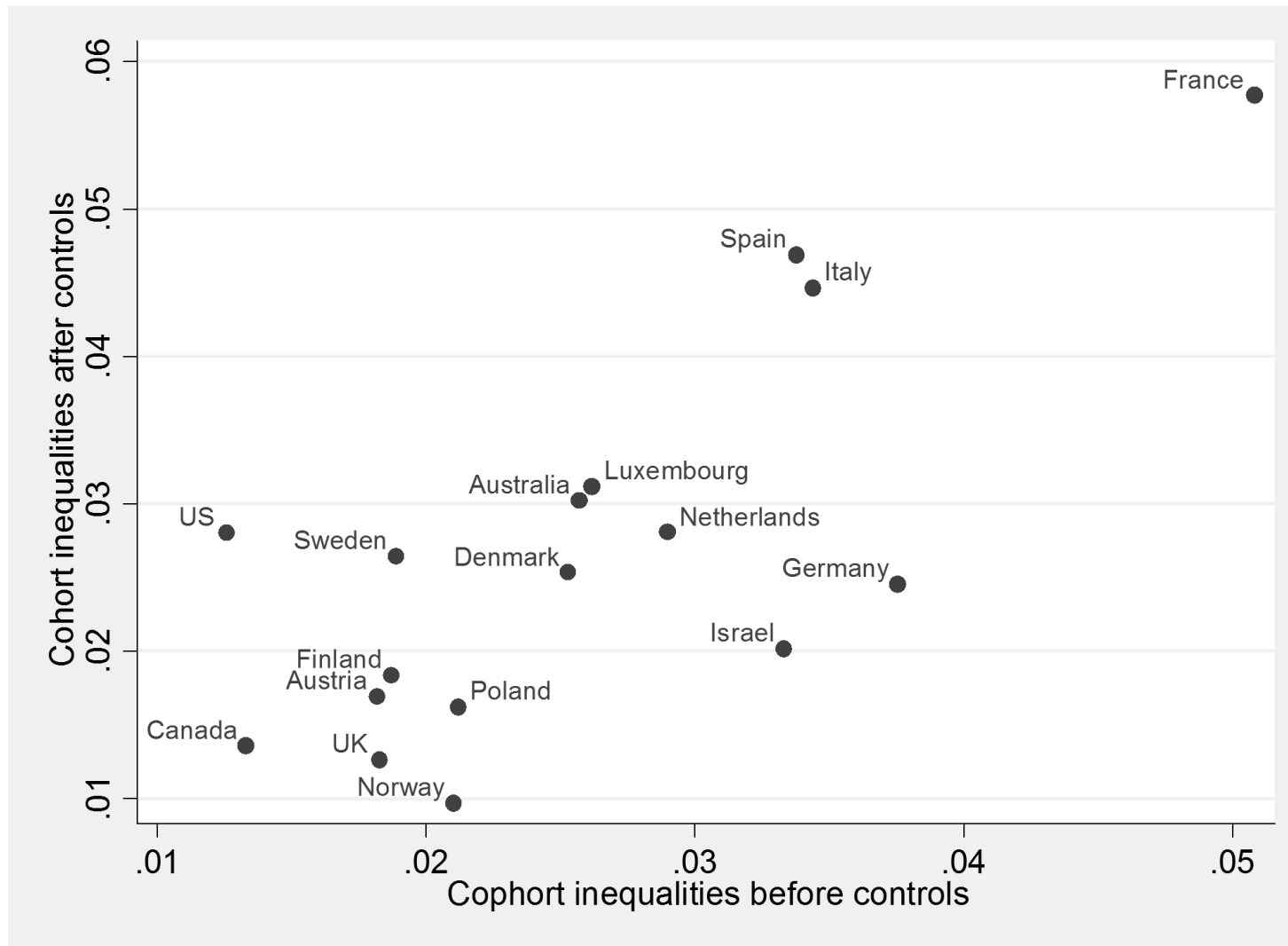
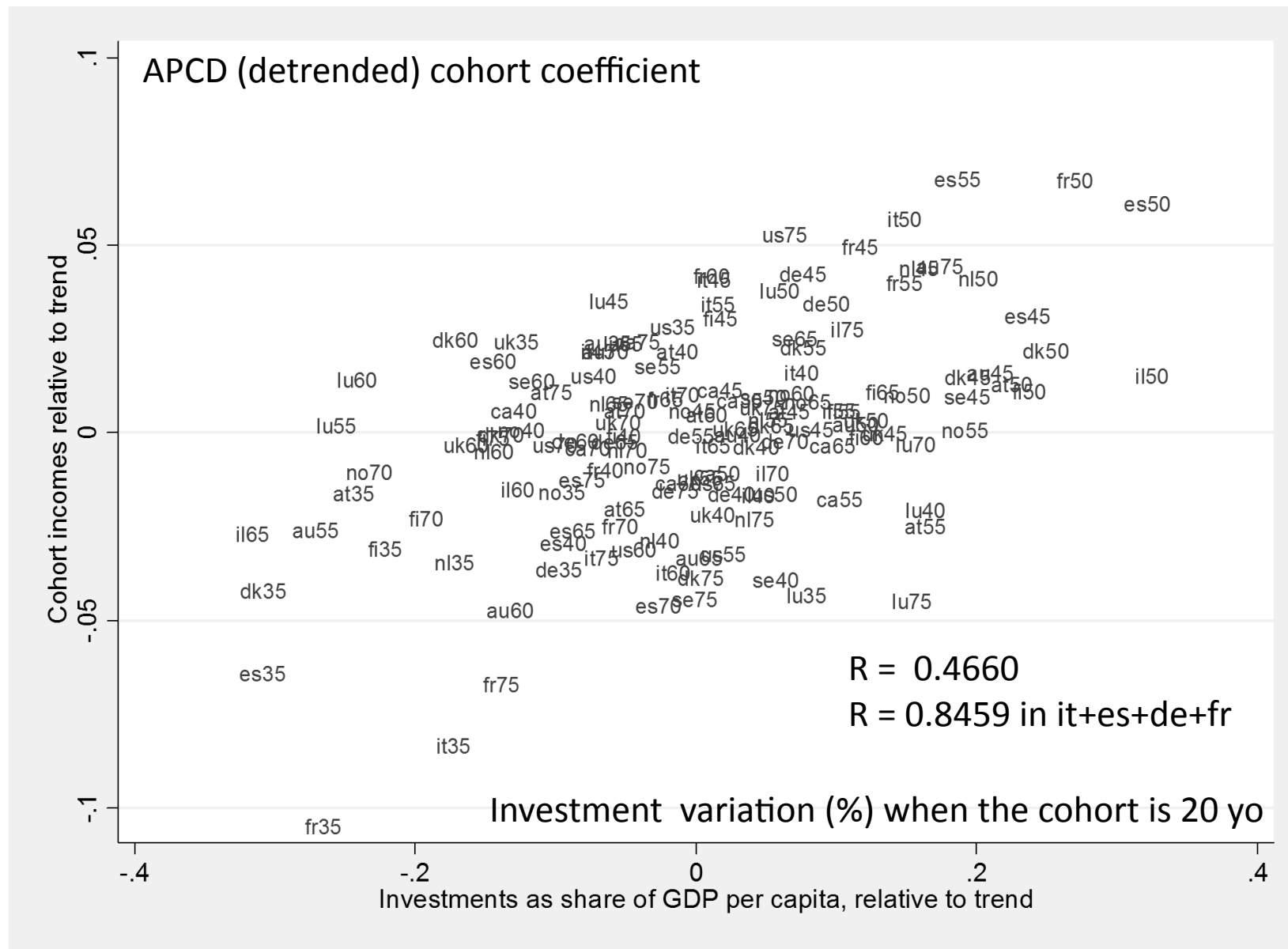


Figure 1: Cohort lifetime incomes and investments at entry into labor market





APCD cohort coefficient bump

Demographic bump

Investment variation (%) when the cohort is 20 yo

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Source	SS	df	MS
Model	.025214501	2	.012607251
Residual	.08998248	146	.000616318
Total	.115196982	148	.000778358

Number of obs = 149  
F( 2, 146) = 20.46  
Prob > F = 0.0000  
R-squared = 0.2189  
Adj R-squared = 0.2082  
Root MSE = .02483

revcohnnonlin	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
demononlin	-.0118079	.0207256	-0.57	0.570	-.0527689	.029153
lgdpnonlin	.2306923	.0368237	6.26	0.000	.157916	.3034687
_cons	.0001481	.0020338	0.07	0.942	-.0038714	.0041676



## Conclusion

- France is a very problematic case of young cohort economic slowdown
- Italy, Spain, share very similar problems  
=> there, the young get worse and the new seniors get relatively better

**Reason:** In conservative welfare state, the protection of insiders (the old) vs outsiders (the young) produce strong correlation between the eco investments and young cohort welfare conditions (and the scarring effects).

The “Easterlin effect” is not general (but it is strong in US CA AU)

### **Next steps:**

Between cohort inequalities => both within and between cohort inequalities