

The evolution of public spending structures in the NMS in comparison: links to private expenditures, inequality and social outcomes

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Overview

- Government expenditures: Levels, structures and developments across countries and over time for COFOG functions Health, Education and Social protection
 - Expressed relative to GDP and as per capita expenditures (real expenditures in EUR-PPP)
- Longer-run trends versus crisis/austerity effects
- Relate government expenditures to household expenditure data (COICOP)
 - Complements versus substitutes
- Relate to income inequality
- Relate to social outcomes and inequality of social outcomes
 - Health (e.g. Life expectancy, death rates, ...), inequality?
 - Education (e.g. PISA results: aggregate levels and inequality)



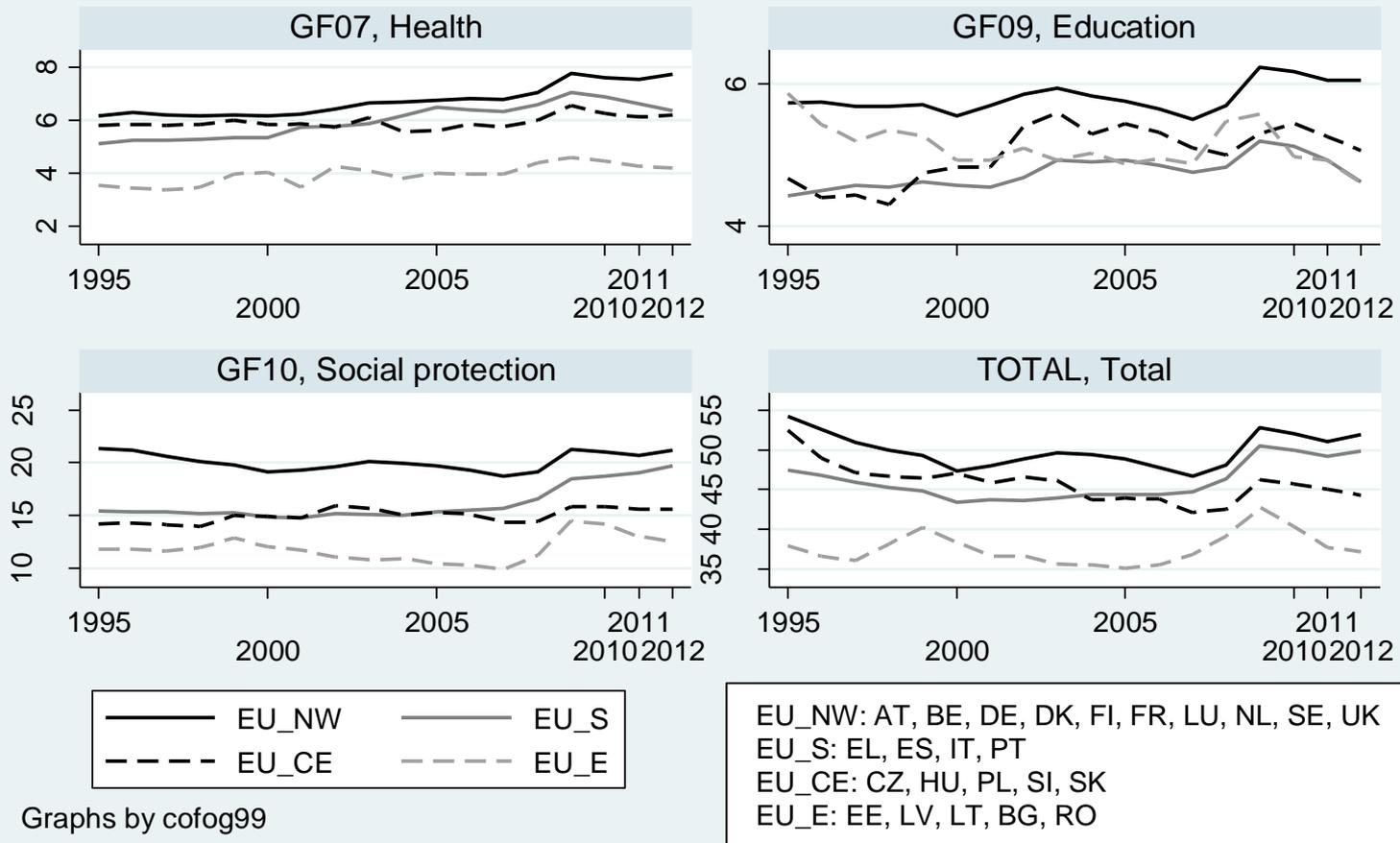
Methodological issues – per capita expenditures

- Government expenditures (COFOG):
 - Expressed relative to GDP and as real expenditures in EUR-PPP
 - Problem: No output deflators and PPP rates available for individual government functions
 - Deflating: NA VA rates for whole sector Health (GF07) and Education (GF09), HICP for Social protection (COFOG 10)
 - PPP rates: rate for government services for Health and Education, Actual household consumption PPP's for Social protection.
- Household consumption data (COICOP)
 - No problem to get PPP and inflation rates
 - ! Household expenditure data are net figures !
(Gross expenditures minus reimbursement from e.g. social security)



Government expenditure by function (! ESA 95 !)

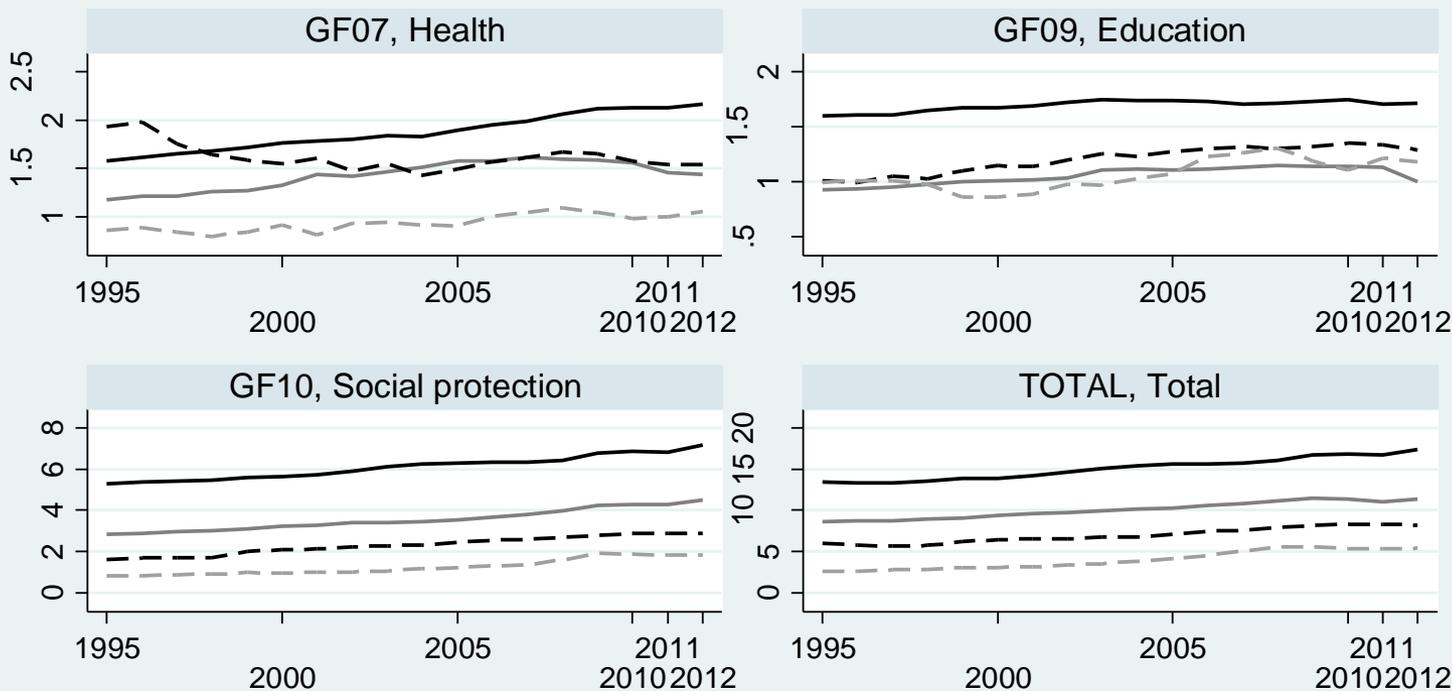
Public expenditure, in % of GDP





Government expenditure by function (ESA 95)

Public expenditure per capita, in thsd, at PPP, in real terms



—	EU_NW	—	EU_S
- - -	EU_CE	- - -	EU_E

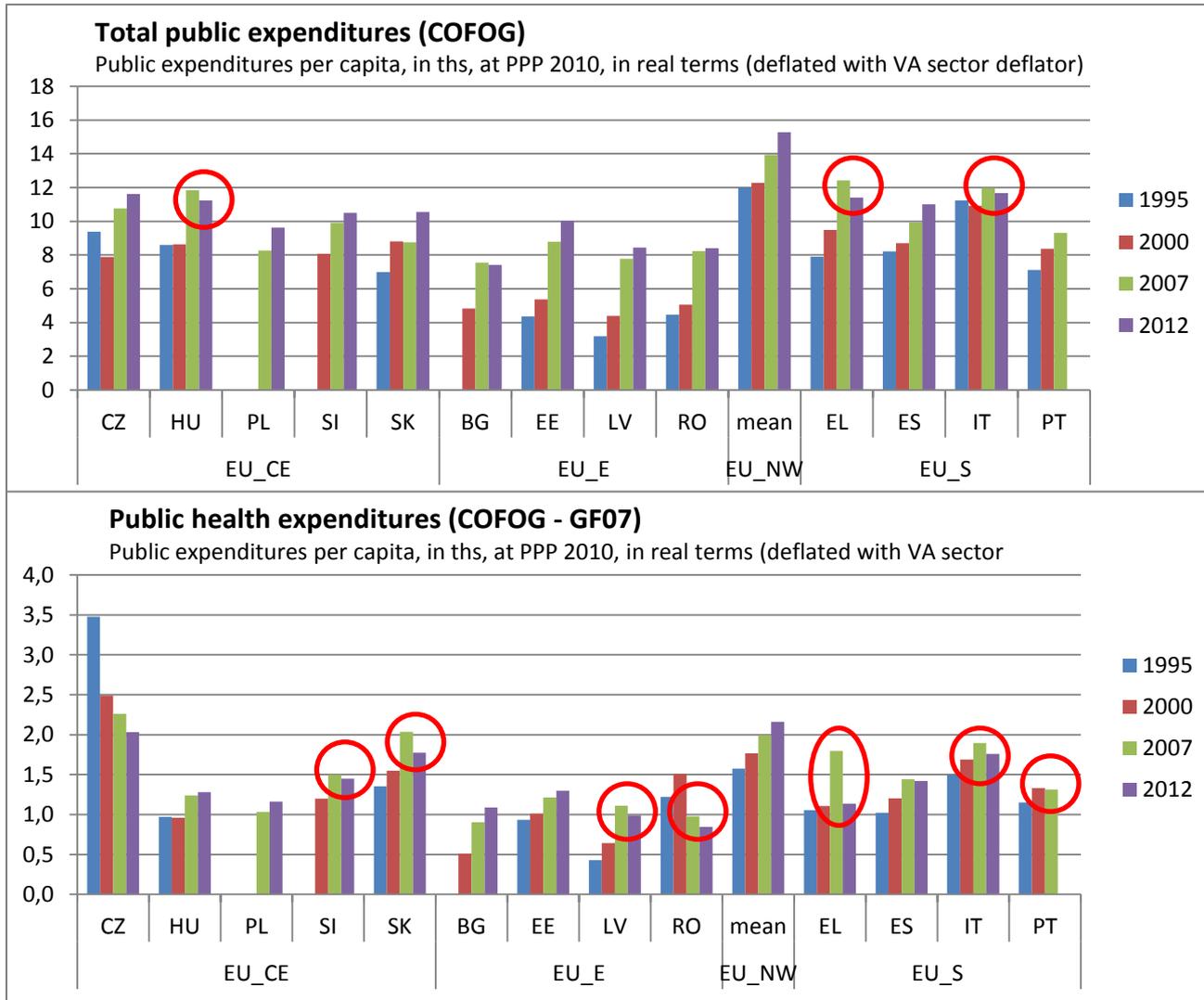
EU_NW: AT, BE, DE, DK, FI, FR, LU, NL, SE, UK
EU_S: EL, ES, IT, PT
EU_CE: CZ, HU, PL, SI, SK
EU_E: EE, LV, LT, BG, RO

Graphs by cofog99



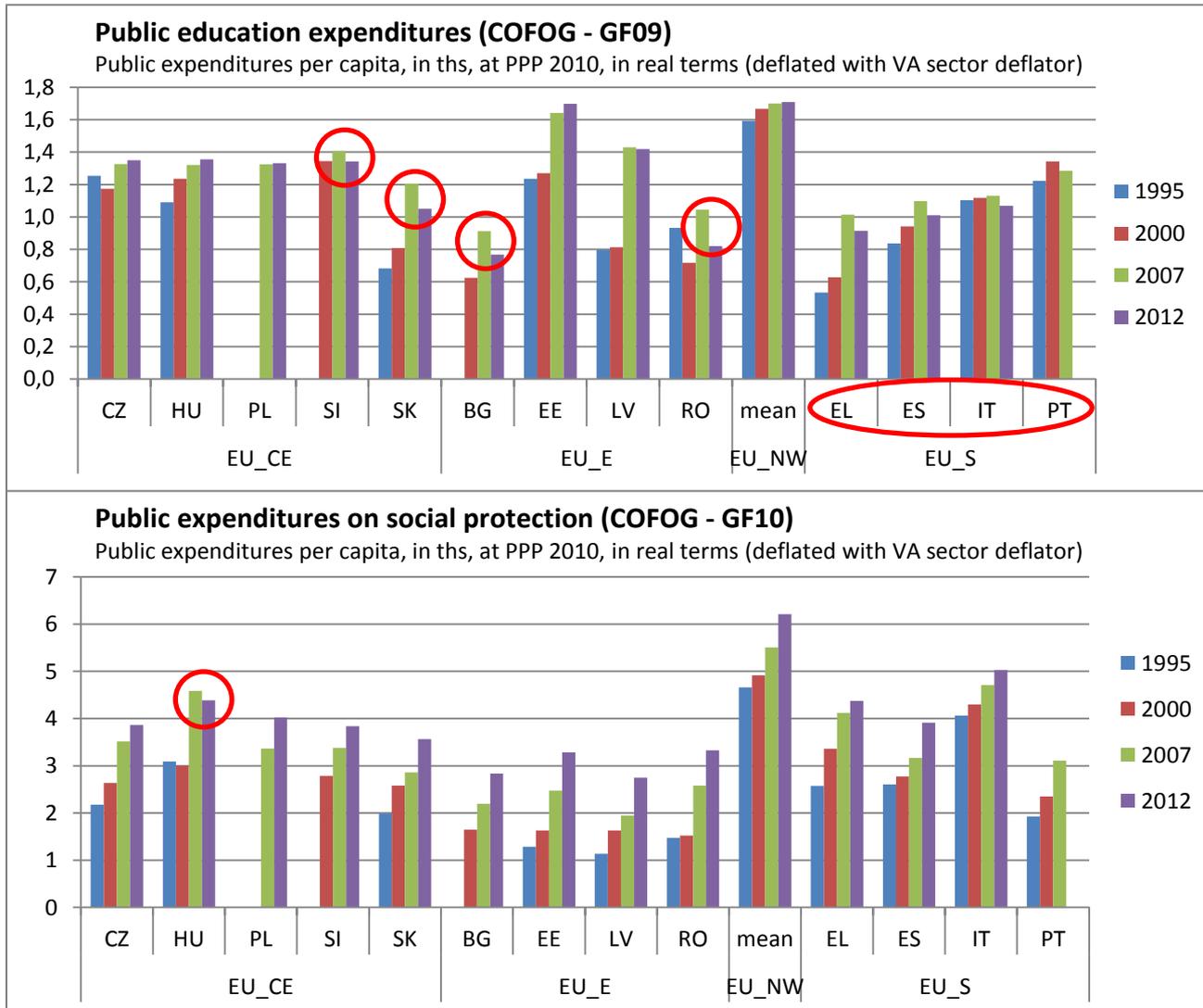


Government expenditure by function (ESA 95)





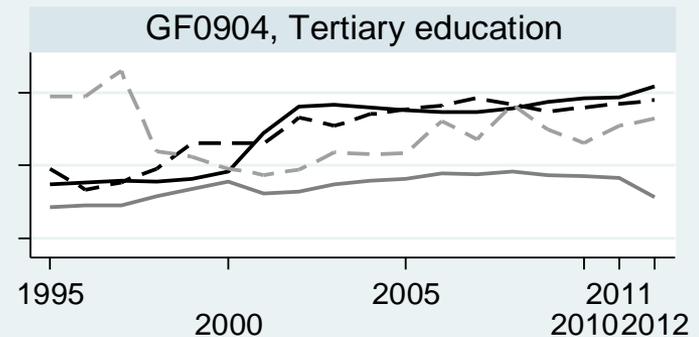
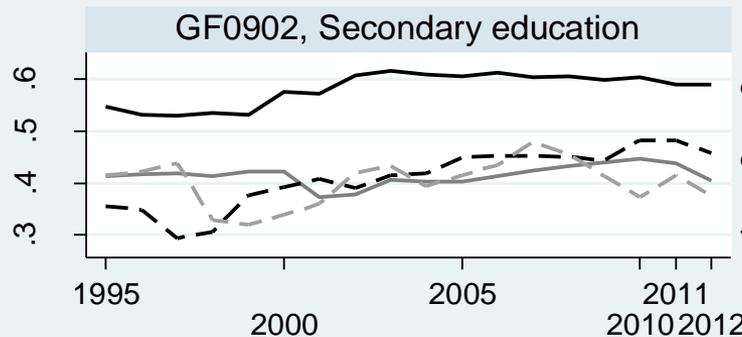
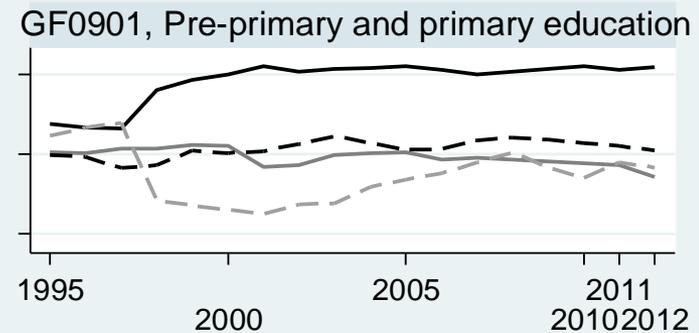
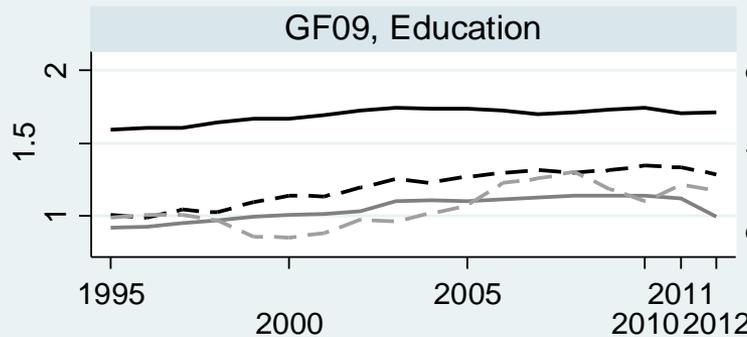
Government expenditure by function (ESA 95)





Government expenditure by function (ESA 95)

Public expenditure per capita, in thsd, at PPP, in real terms



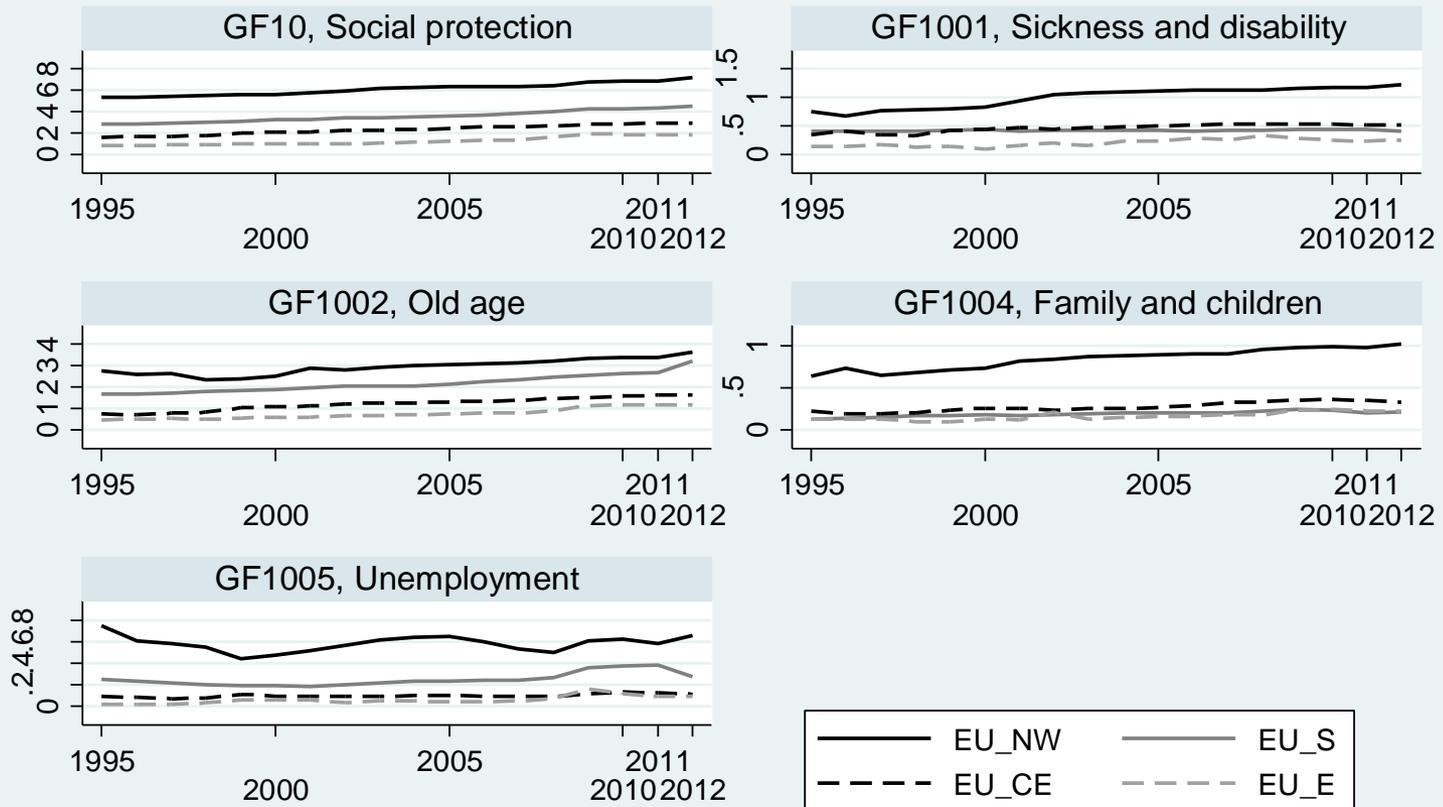
Graphs by cofog99





Government expenditure by function (ESA 95)

Public expenditure per capita, in thsd, at PPP, in real terms

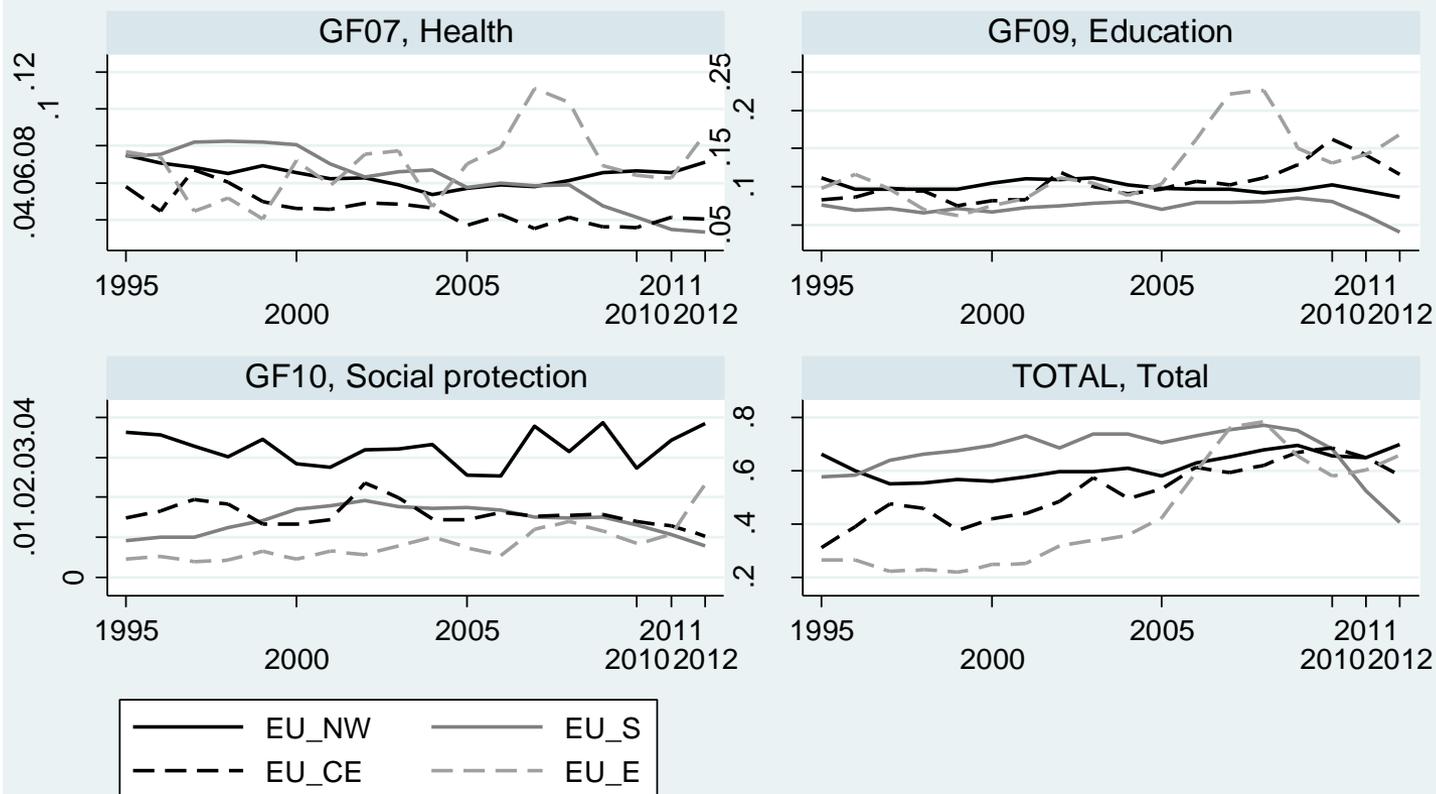


Graphs by cofog99 and COFOG99_text



Government investment by function (ESA 95)

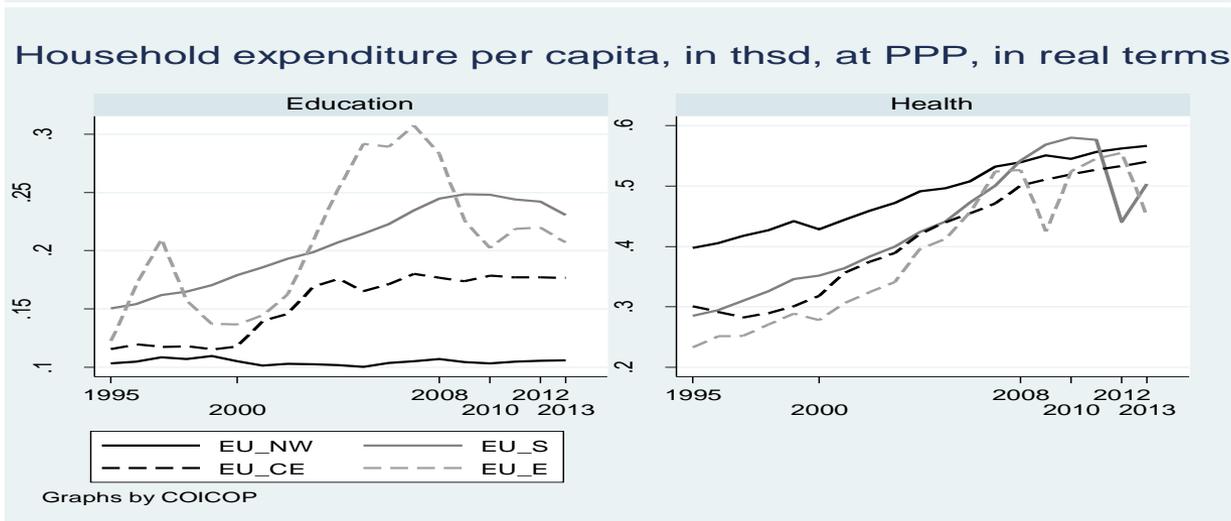
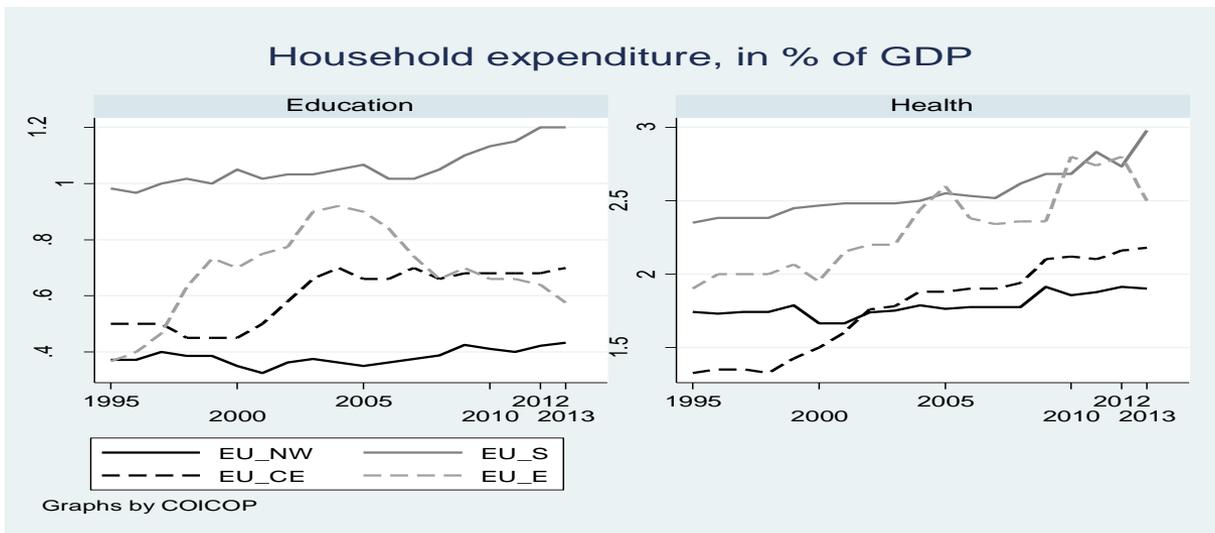
Public GFCF per capita, in thsd, at PPP, in real terms



Graphs by cofog99

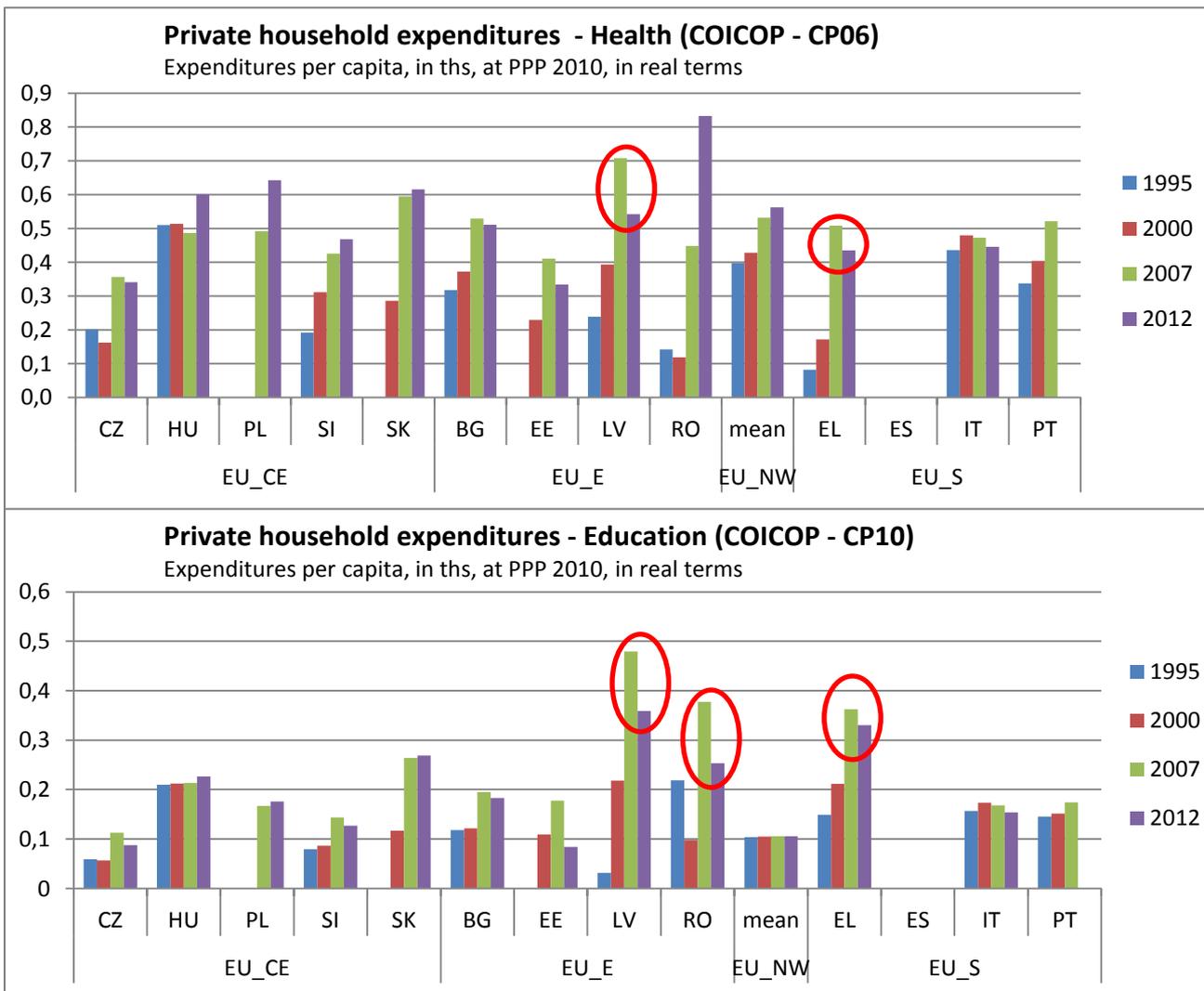


Household expenditure by COICOP groups



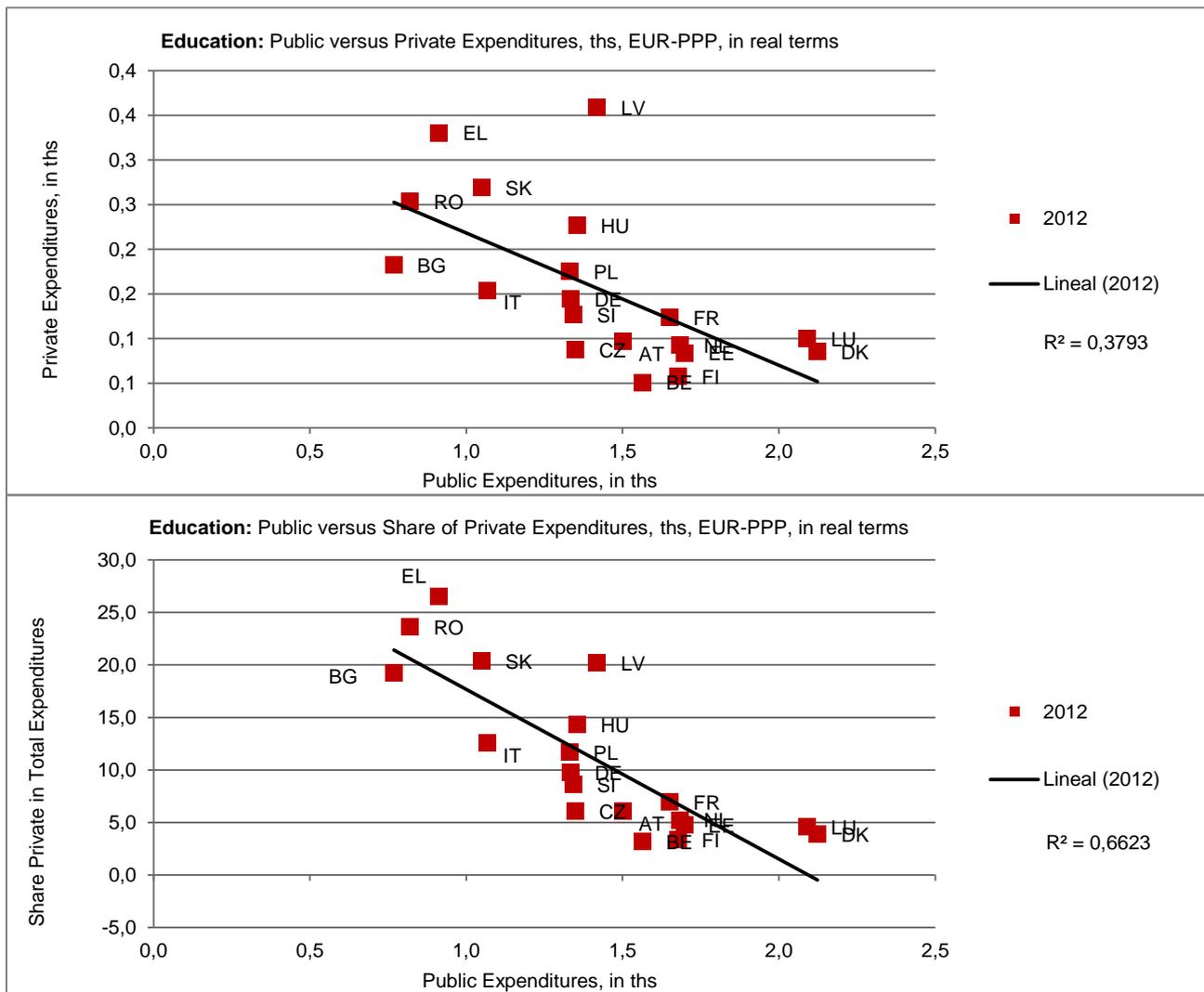


Household expenditure by COICOP groups



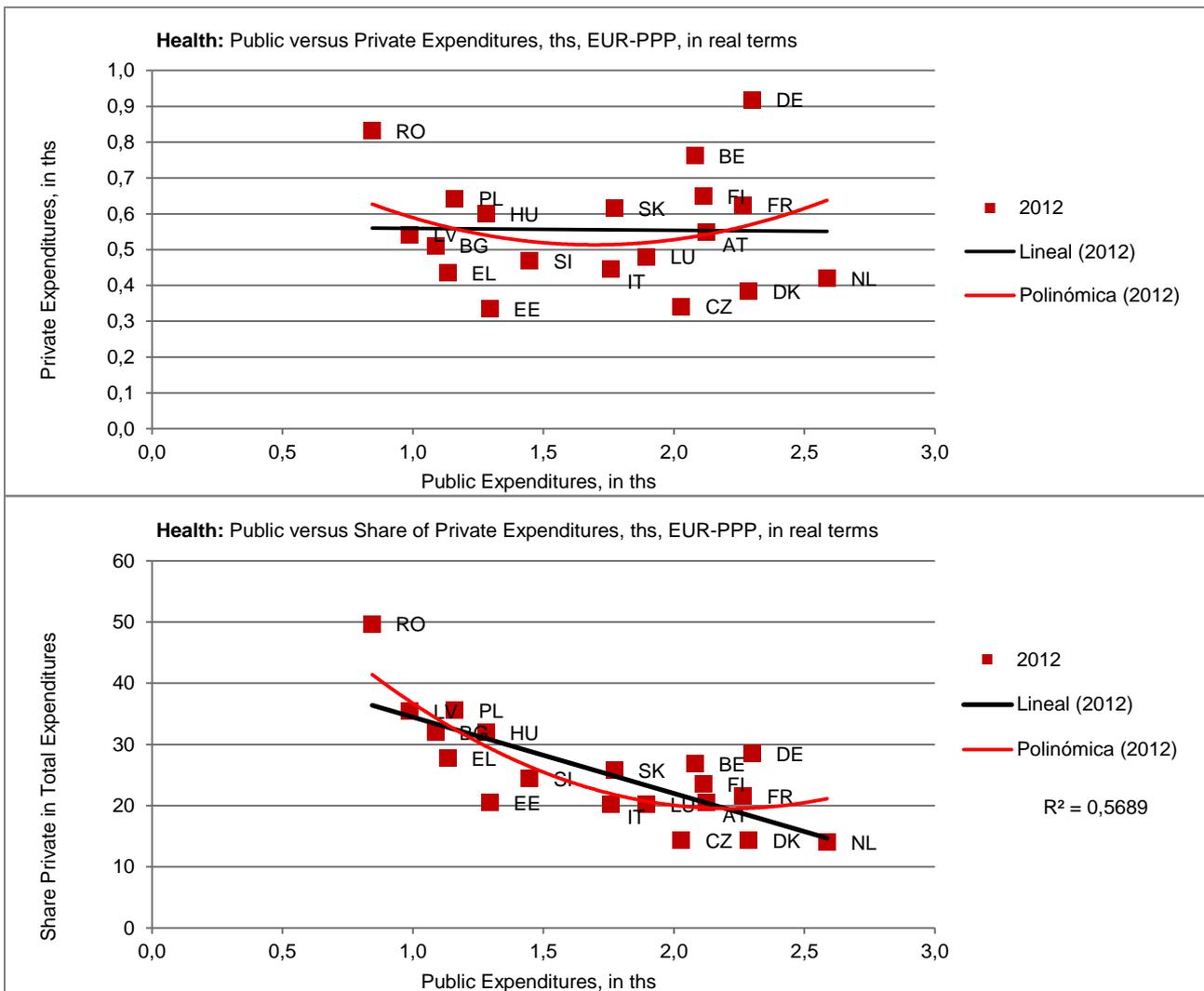


Public versus Private Expenditures



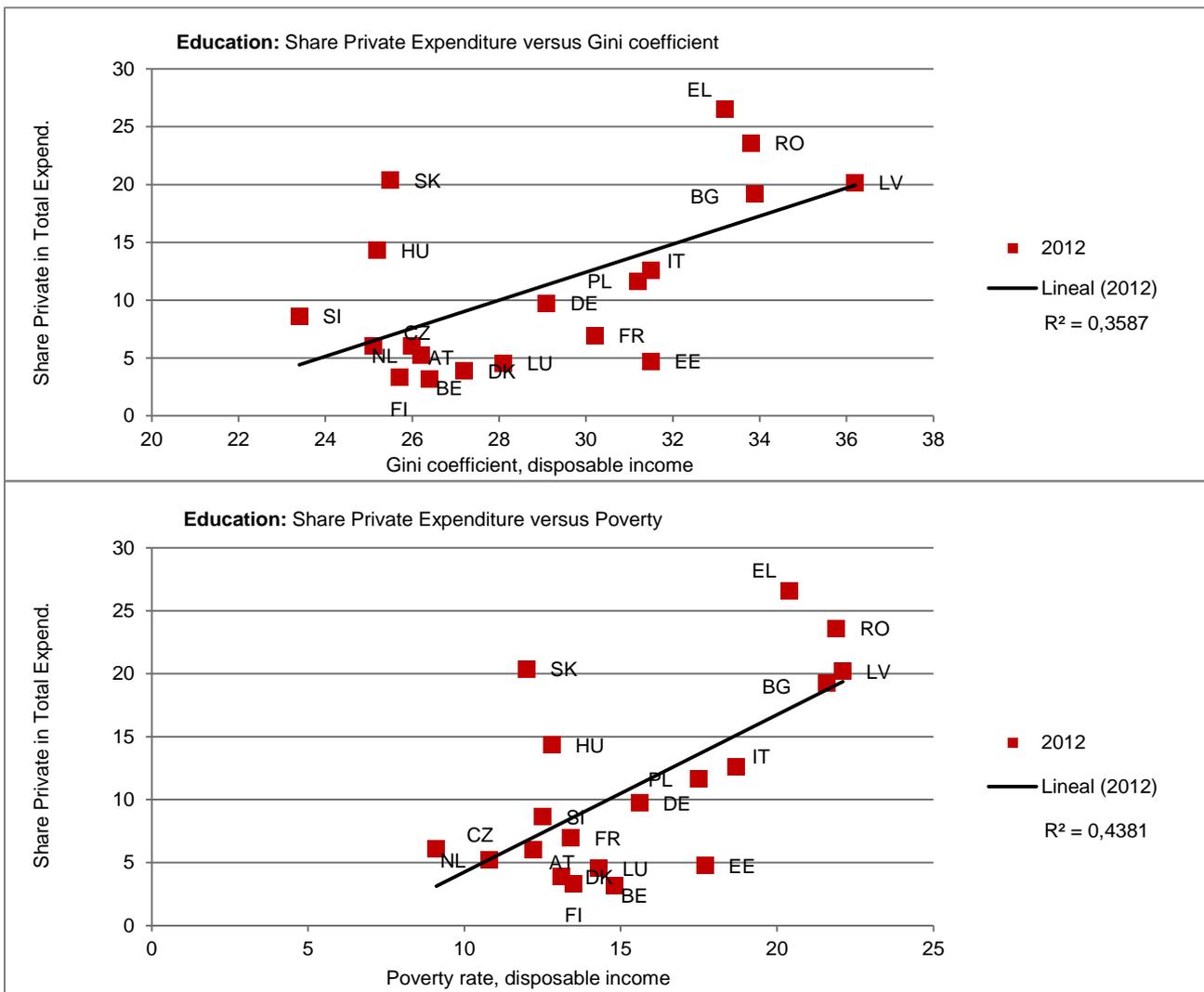


Public versus Private Expenditures



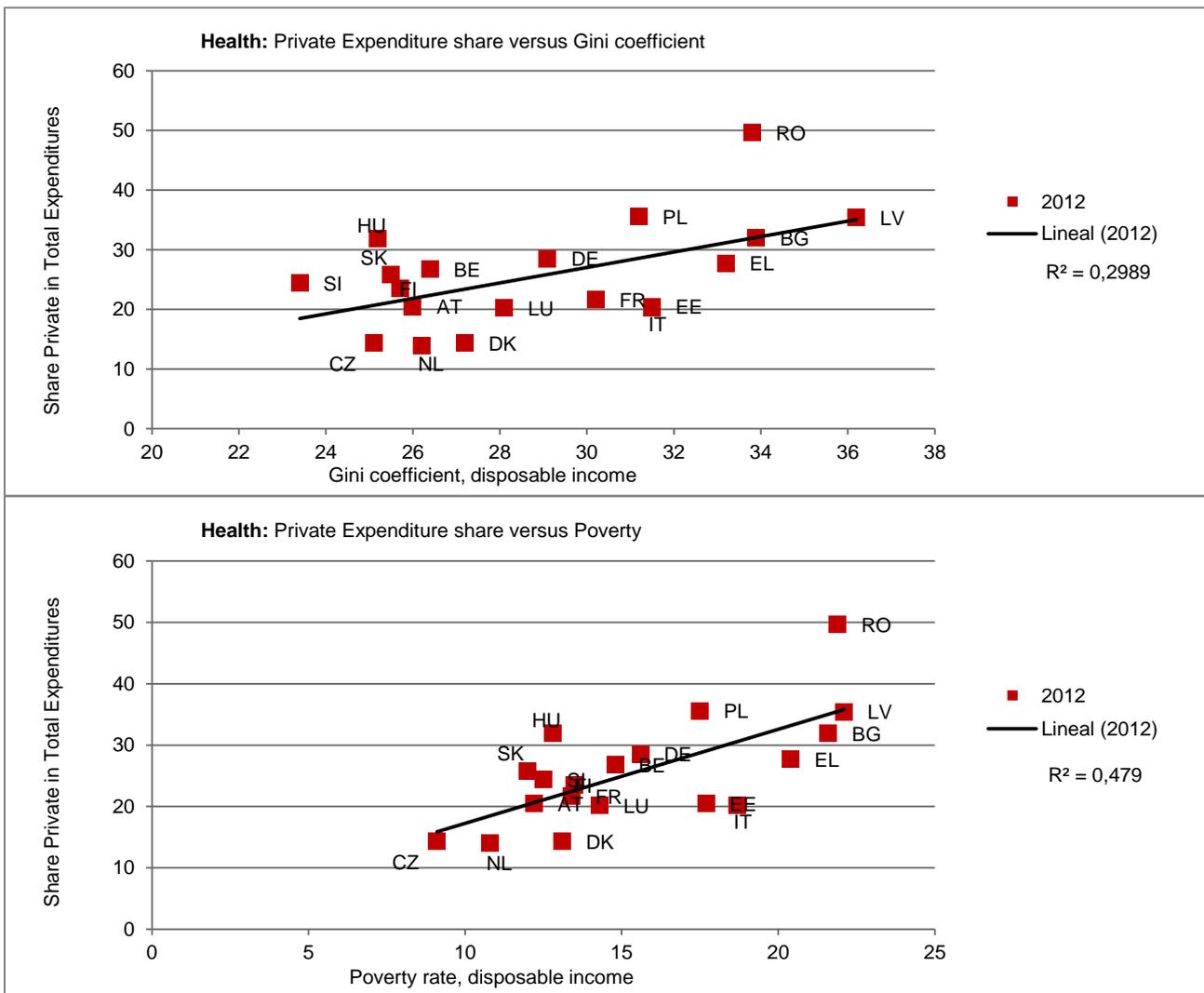


Inequality and Private Expenditures



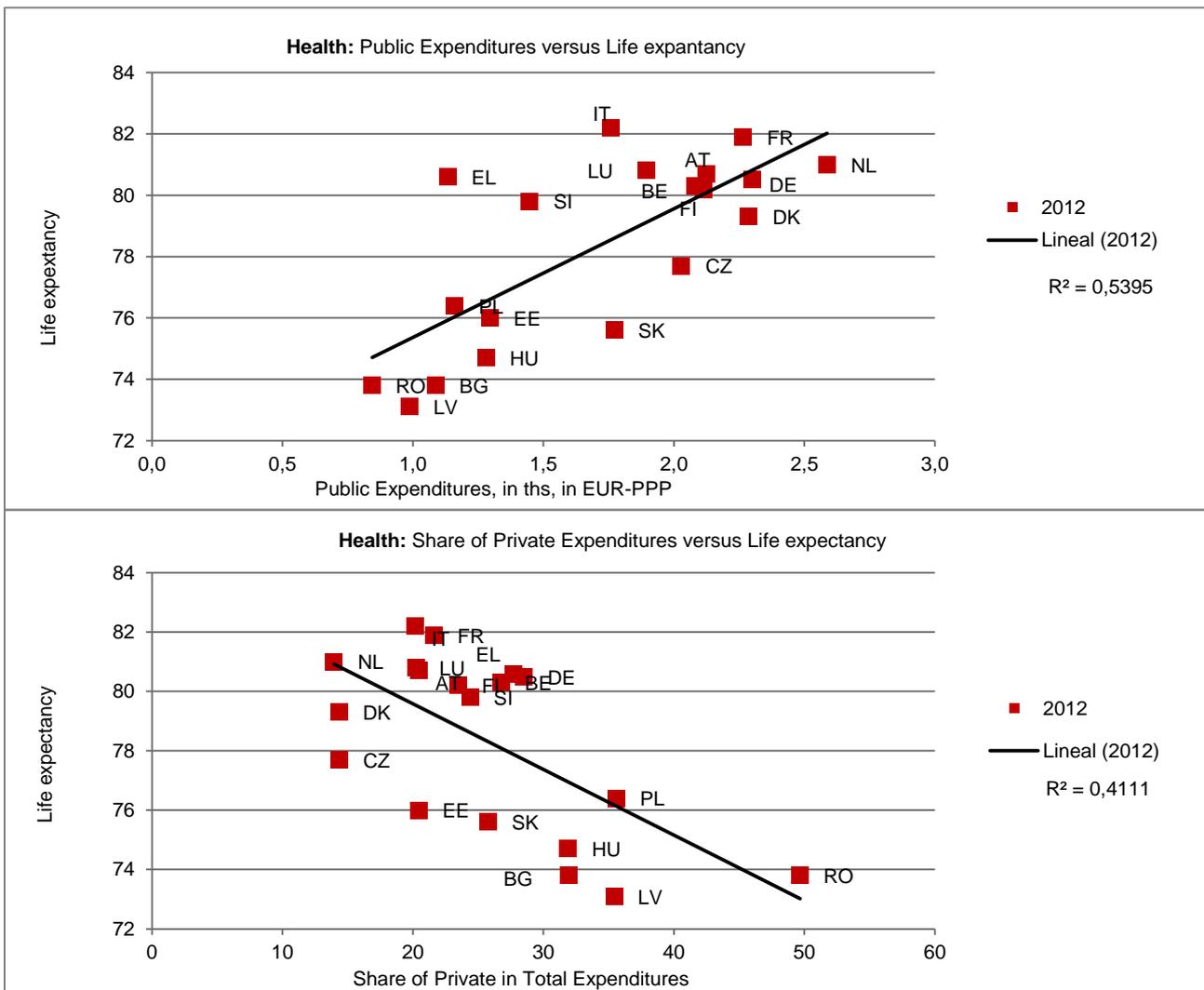


Inequality and Private Expenditures





Public/Private Expenditures and Social Outcomes





Summary of descriptive analysis

- COFOG
 - Health: GDP levels lower in EU_E;
PC: increase in EU_NW; stagnation in EU_S, EU_CE
 - Education: GDP lev. lower in EU_E,_CE,_S;
PC: stagnation in EU_NW; increase in other regions
 - Social protection: GDP lev. in EU_E,_S
PC: increase in all regions (unemployment and pensions !!!)
- COICOP
 - Long term increase pc in Health
 - Long term increase pc in Education not in EU_NW
= where public expenditures are high and stable
- Crisis effects:
Partly in NMS countries (EU_E) but particularly in EU_S



Summary of descriptive analysis

- Simple correlations indicate that
 - Public versus private expenditures:
 - NMS: substitutes
 - Other EU: substitutes in Education; complements in health
 - the level (share) of public health / education expenditures correspond with situation concerning income inequality in EU countries
 - inter-country variations in public expenditure levels may help us explain part of the differences in social outcomes (apart from many other influencing variables)



Econometric Analysis

- Dependent variables
 - Social outcomes in Health and Education
 - Inequality of (social) outcomes in both fields (health ~ difficult)
- Explanatory variables apart from government expenditures
 - GDP pc.; Private expenditures and their shares; income inequality
 - Traditional: Inputs (Doctors, Hospital beds, etc.), life style, etc.
 - Socio-economic controls
- Estimation approach
 - Starting with cross-country OLS at the country level
 - Panel data analysis will depend upon if good = sensitive output data are available (e.g. problem that life expectancy may not react instantly enough on changes in public health expenditures)