Globalization and income inequality
- revisited -

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Theoretical predictions

Market outcomes - before taxation and transfers:

- *Standard H-O trade model*:
  Income inequality is expected to increase in developed countries, and to decrease in the developing world (see i.a. Ohlin 1933; Stolper and Samuelson, REStud 1941).
- *Technology transfers and FDI*:
  Capital-augmenting and skill-driven technology transfers and FDIs may also raise income inequality in the developing world (see Feenstra and Hanson, J.Int.Econ. 1997; Acemoglu, QJE 1998; J.Econ.Lit. 2002).

Net outcomes - after taxation and transfers:

- *Efficiency hypothesis*:
  "Race-to-the-bottom" - reduction of taxation on mobile factors, of regulation, and of redistribution activities - may also result in a rise of net inequality outcomes (see i.a. Sinn, The New Systems Competition, 2003).
- *Compensation hypothesis*:
  Given the total gains from globalization are large enough, the losing groups may be compensated for increasing risk exposures and market inequality outcomes. No erosion of the welfare state and no rise of net inequality outcomes are expected (see Meltzer and Richard, JPE 1981; Rodrik, JPE 1998).

Current state of empirical research

- **Mixed evidence**

  (see Wood, J.Econ.Perspect. 1995; Savvides, Econ.Lett. 1998; Dreher and Gaston, Rev.Int.Econ. 2008; Roine et al., JPubE 2009; Bergh and Nilsson, EJPE 2010; Doerrenberg and Peichl, Appl.Econ. 2014; Schinke, Ifo-WP 2014; Dabla-Norris et al., IMF 2015; Potrafke, World Econ. 2015) .

- Variation mainly depends on the selection of the variables, and the sample selection

- However, recent studies using Gini indices as inequality measure predominantly report a **positive relationship between globalization and income inequality** (see Dreher and Gaston, Rev.Int.Econ. 2008; Bergh and Nilsson, EJPE 2010; Gozgor and Ranjan, CESifo-WP 2015; Dabla-Norris et al., IMF 2015).

- Previous studies did not overcome the endogeneity problem (lack of causal identification!?).

  Reasons for endogeneity:

  - Omitted variable bias
  - Reverse causality

Our results and contribution

- Replication of OLS results of previous studies.
- Using a time-varying instrument for openness to deal with the endogeneity problem (identification strategy).
- 2SLS does not provide evidence of an effect of globalization on income inequality in the full sample.
- OLS and 2SLS results are heterogenous across country samples (sample selection problem).
- OLS and 2SLS report significance of the relationship in the higher income sample.
- However, **no significant relationship** (OLS and 2SLS) in the higher income sample after **excluding China** and/or Eastern European (or Post-Soviet) **transition countries**.

Outline

1. Theory and related literature
2. Data and Descriptives
3. OLS fixed effects
4. IV strategy and 2SLS
5. Results by economic development levels
6. The role of transition countries
7. Summary and outlook

2. Data and descriptives

Data and variables

Income Inequality:

- The most debated dimension of economic inequality is income inequality.
- Income inequality has many dimensions - the **Gini index** provides a measurement of overall income inequality in one indicator.
- We use the **pre tax/transfer** and the **post tax/transfer** Gini household income inequality indices of the *Standardized World Income Inequality Database* (SWIID, v.5.1) released by Solt (2016);

  see Dorn (2016) for a comprehensive discussion about inequality databases.

Globalization:

- Globalization has many facets and may affect inequality in various ways.
- KOF (2016) provides an **overall index of globalization** as proxy - including economic, social and political indicators of integration (see Dreher et al. 2008).

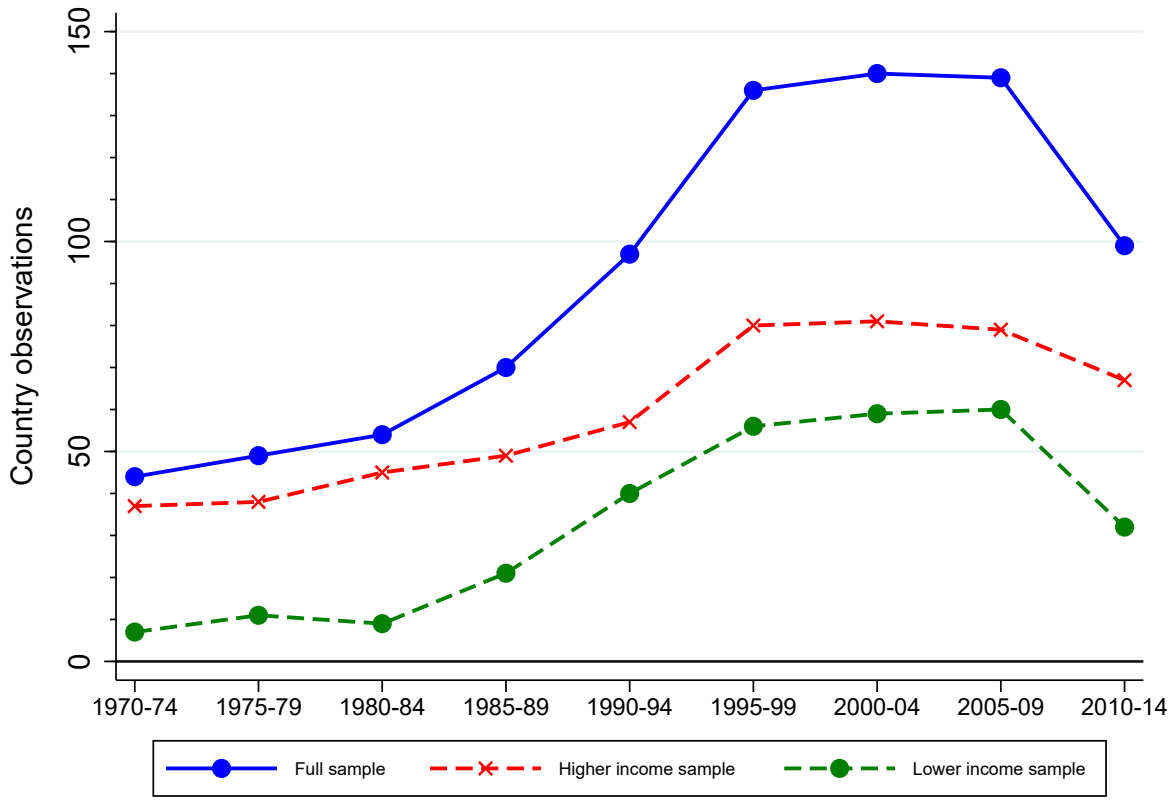
Controls:

- Population growth, GDP pc, and dependency ratio as controls in baseline specifications.
- Several economic, demographic, institutional, and political control variables in robustness checks.

Sample

- Up to **137 countries** in an unbalanced panel **between 1970 and 2014**.
- Nine 5-year-averaged periods to smooth data gaps, unsystematic measurement errors, and business cycles.

Figure: Distribution of country-period observations

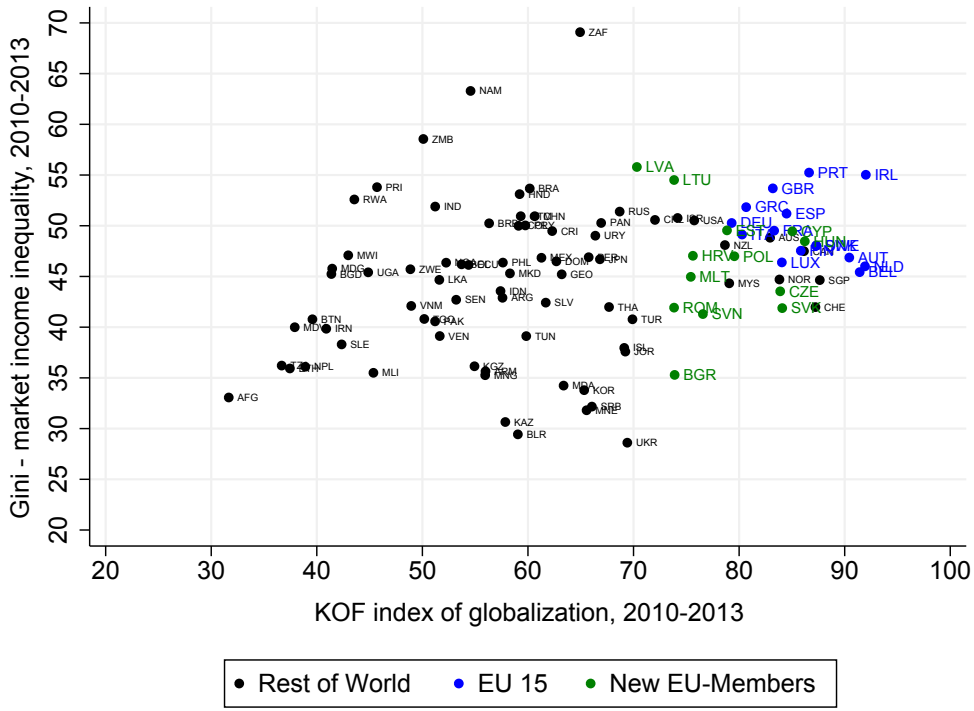


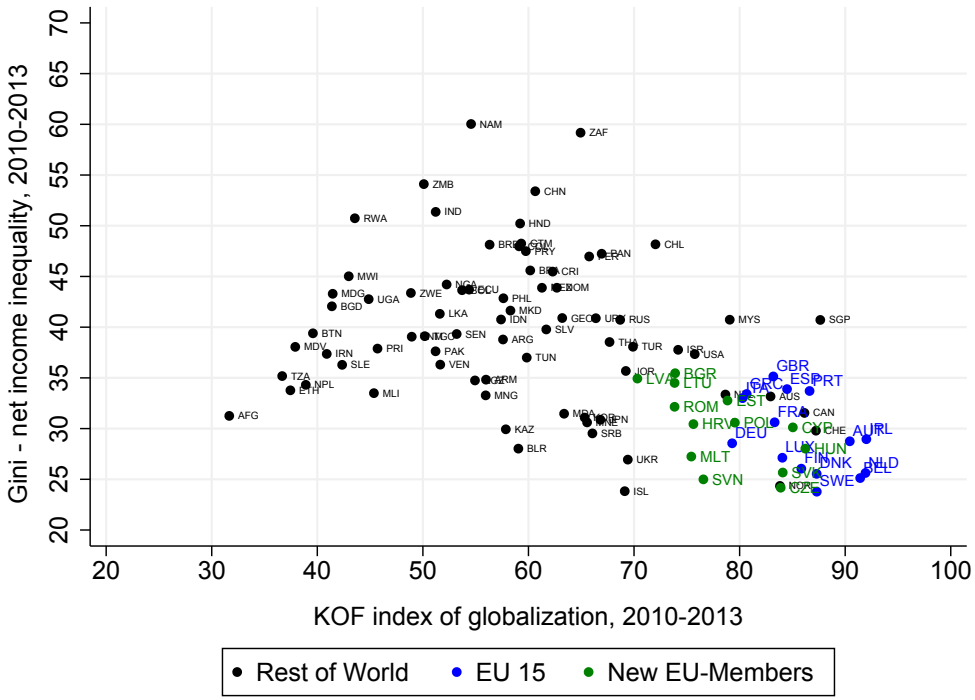
Sources: SWIID 5.1; KOF 2016; own calculations

Note: Higher income countries if GNI per capita of USD 4,126 or more (classification of World Bank, 2015)

RECAP Kick-off meeting - cross sectional analysis

Figure: Cross section of Gini income inequality and globalization around the world, averaged by country 2010-13

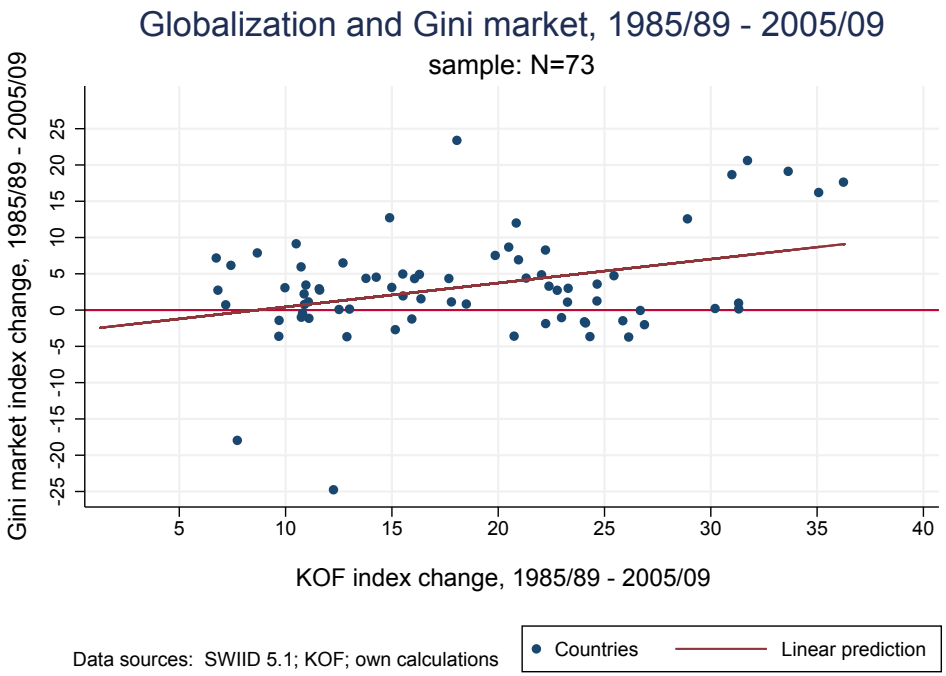


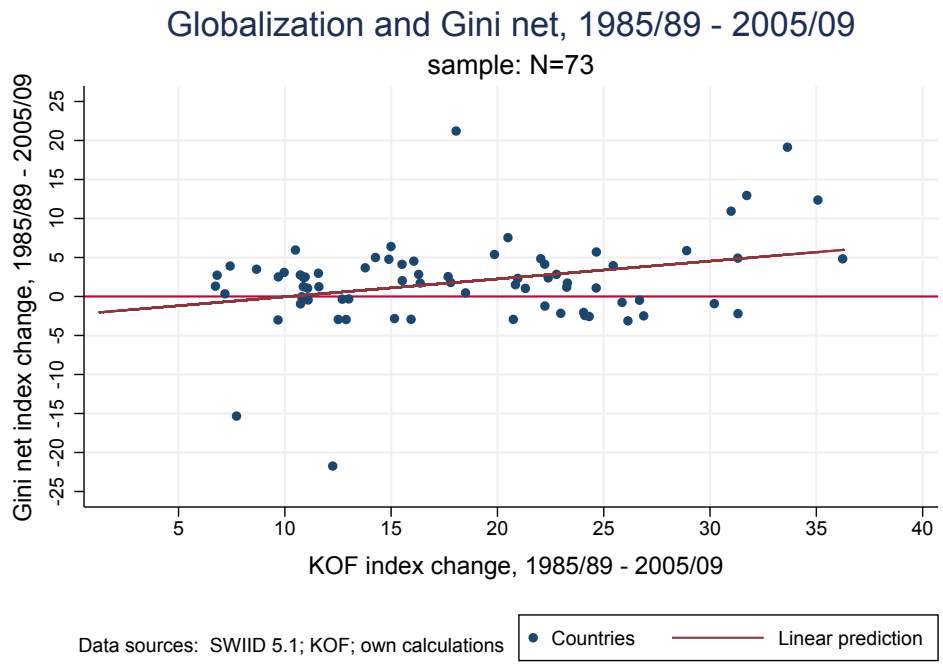


Sources: SWIID 5.0; KOF 2016; own calculations

Within country changes over time

Figure: Changes in globalization and income inequality, between 1985/89 - 2005/09 - all income groups

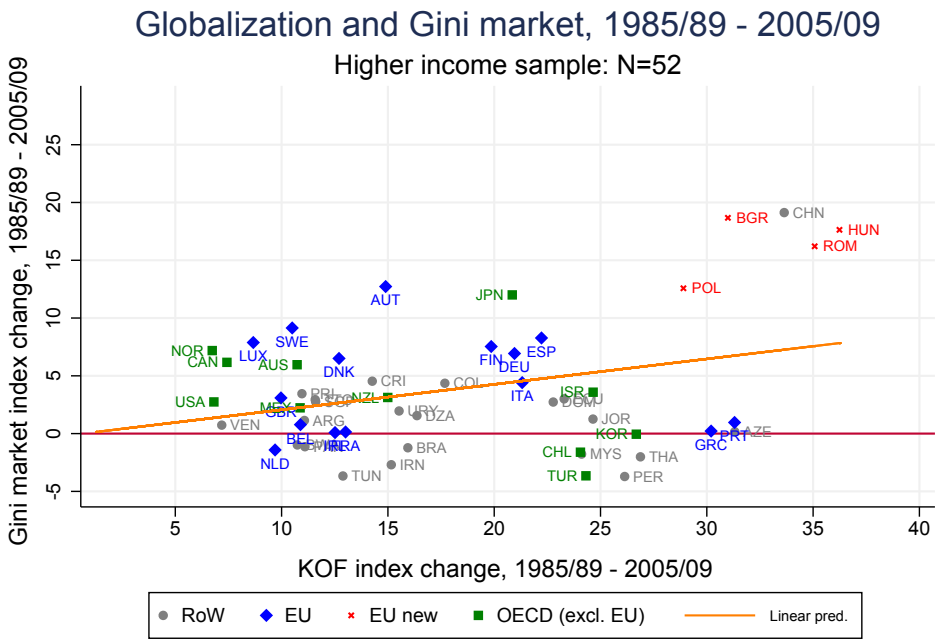




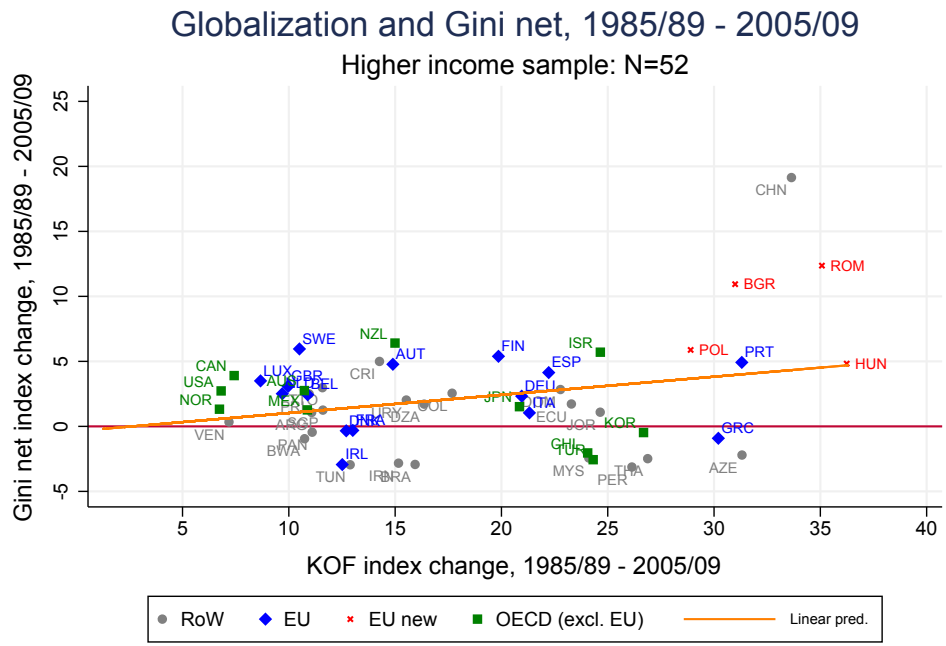
$$\hat{\beta}_{market} = 0.33^{***}, \hat{\beta}_{net} = 0.23^{***}$$

Within country changes over time - higher income sample

Figure: Changes in globalization and income inequality, between 1985/89 - 2005/09 - higher income groups



Data sources: SWIID 5.1; KOF; own calculations

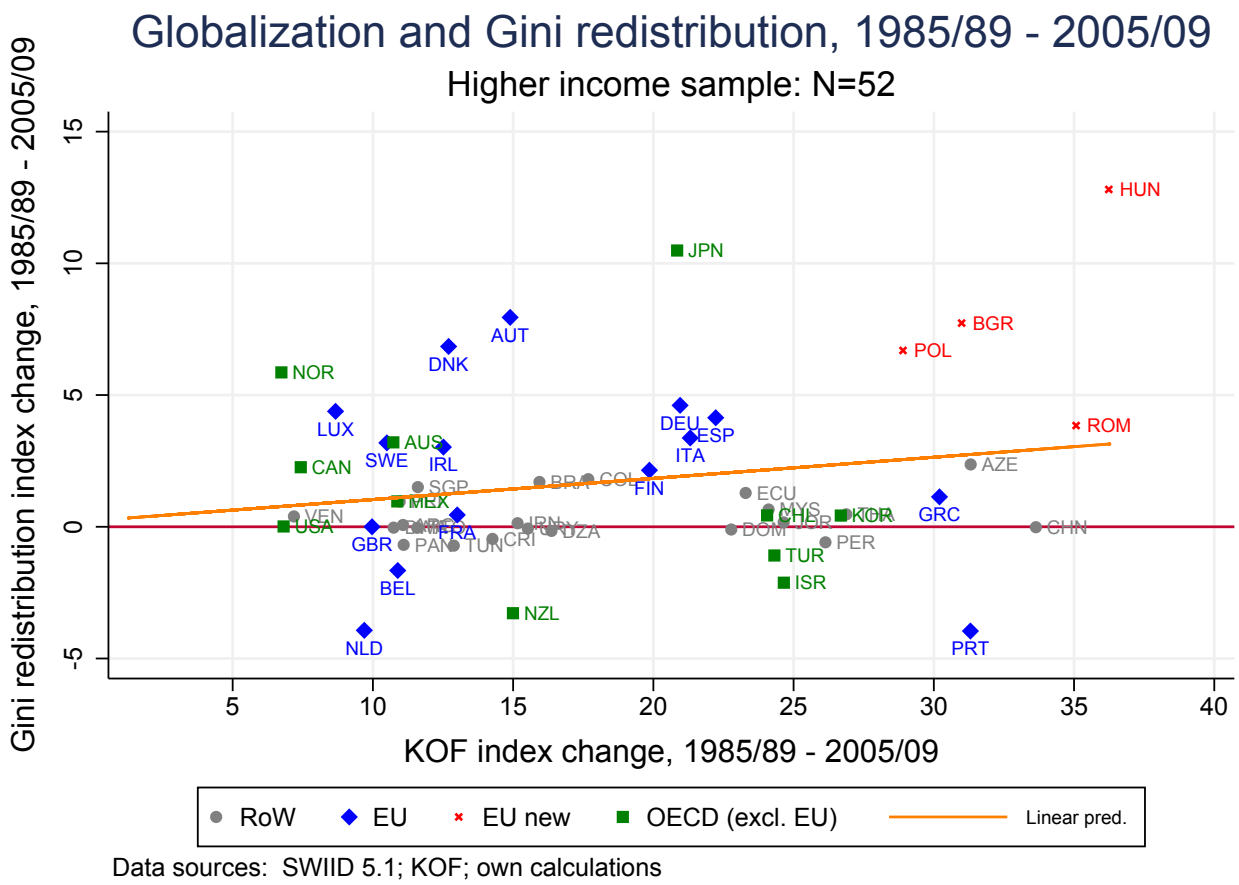


Data sources: SWIID 5.1; KOF; own calculations

$$\hat{\beta}_{higher,market} = 0.22^{**}, \hat{\beta}_{higher,net} = 0.14^{**}$$

Note: Higher income countries if GNI per capita of USD 4,126 or more (classification of World Bank, 2015)

Figure: Changes in globalization and Gini redistribution, between 1985/89 and 2005/09 - higher income groups



$$\hat{\beta}_{higher,red} = 0.08$$

Note: Higher income countries if GNI per capita of USD 4,126 or more (classification of World Bank, 2015)

3. OLS - fixed effects

OLS - Panel Fixed Effects

We exploit the time variation within countries by using OLS with FE:

$$y_{i,\tau} = \beta_0 + \beta_1 \times GLOB_{i,\tau} + \mathbf{\Theta'} \times \boldsymbol{\chi}_{i,\tau} + \nu_i + \nu_\tau + \varepsilon_{i,\tau}, \qquad (1)$$

with

$y_{i,\tau}$: Gini index value of country i in period τ
$GLOB_{i,\tau}$: Globalization index value of country i in period τ
$\boldsymbol{\chi}_{i,\tau}$: Set of control variables
ν_i : Country fixed effects
ν_τ : Period fixed effects
$\varepsilon_{i,\tau}$: Idiosyncratic error term

OLS - Panel Fixed Effects

Table: Globalization and income inequality, 1970-2014
(OLS fixed-effects estimates, nine periods using 5-year averages)

Sample: (Countries)	Full (137)		Large (114)		Intermediate (70)		Small (56)	
Dep. var.:	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net
Method:	FE	FE	FE	FE	FE	FE	FE	FE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GLOB	0.242***	0.168***	0.242***	0.165***	0.201**	0.149**	0.172	0.122
	(0.0699)	(0.0572)	(0.0717)	(0.0584)	(0.0873)	(0.0744)	(0.104)	(0.0896)
GDP pc	0.0901	0.00579	0.0909	0.00666	0.0798	0.00143	0.0367	-0.0384
	(0.0724)	(0.0600)	(0.0733)	(0.0602)	(0.0813)	(0.0684)	(0.0707)	(0.0595)
ln POP	-8.788***	-3.897*	-8.463***	-3.651	-9.619***	-4.627*	-7.544**	-2.523
	(2.656)	(2.244)	(2.668)	(2.249)	(3.080)	(2.603)	(3.557)	(2.980)
Dependency	0.146***	0.0729*	0.155***	0.0797*	0.124**	0.0505	0.187***	0.108**
	(0.0499)	(0.0427)	(0.0510)	(0.0436)	(0.0570)	(0.0478)	(0.0540)	(0.0431)
Fixed Effects								
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Period	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	802	802	740	740	549	549	465	465
R-squared	0.254	0.118	0.270	0.126	0.280	0.126	0.352	0.168
Period-obs. by country	$\succeq$ 2(9)	$\succeq$ 2(9)	$\succeq$ 4(9)	$\succeq$ 4(9)	$\succeq$ 6(9)	$\succeq$ 6(9)	$\succeq$ 7(9)	$\succeq$ 7(9)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4. IV strategy and 2SLS

IV strategy

Identification problems:

- Omitted variable bias
  (i.a. exploit panel dimension, include country FE).
- Reverse Causality.
- Composite KOF globalization index as proxy for the true role that globalization plays for the determination of income inequality within countries.

IV solution:
Having a credible external (time-varying) instrument for globalization.

- Frankel and Romer (AER, 1999) - gravity-type model to predcit openness.
- Feyrer (NBER-WP, 2009) - gravity-type model in combination with a time-varying component.
- Felbermayr and Gröschl (EER, 2013) - gravity-type model and natural disasters: Large-scale natural disasters (in other countries) as exogenous time-varying component.
- Potrafke (J.Comp.Econ, 2013), Eppinger and Potrafke (World Econ., 2016) - gravity-type model based predicted openness as IV for the KOF globalization index.

IV construction

The IV is constructed in two steps:

1. **Predict bilateral openness** $\hat{\omega}_t^{ij} = \frac{(M_t^{ij} + M_t^{ji})}{GDP_t^i}$

- Regress bilateral openness on strictly exogenous variables to income inequality, such as large scale natural disasters in country j, and several interactions of the incidence of natural disasters and geographic variables.
- Poisson Pseudo Maximum Likelihood (PPML) estimation, using standard errors clustered by country pair.

$$\hat{\omega}_t^{ij} = exp[\delta_1 \times D_t^j + \boldsymbol{\gamma'} \times \mathbf{\Phi_t^{ij}} + \boldsymbol{\lambda'} \times (\mathbf{\Phi_t^{ij}} \times D_t^j) + \nu^i + \nu^j + \nu_t] + \varepsilon_t^{ij}, \quad (2)$$

with

D_t^j : Large scale natural disasters in country j

$\mathbf{\Phi_t^{ij}}$: Set of geographic and population variables

IV construction - cont.

2. **Construction of an exogenous proxy for multilateral openness:**

- Aggregation of the predicted values by importing country i over all bilateral country-pairs as proxy for multilateral openness:

$$\Omega_t^i = \sum_{i \neq j} \hat{\omega}_t^{ij} \tag{3}$$

- Predicted openness values by country between 1966-2008.
- Average over 5-year periods τ.
- Use one period lags $\Omega^i_{\tau-1}$ as instrument for $GLOB_{i,\tau}$

between 1970-2014.

Key identifying assumption: Time-varying natural disasters in country j have no effect on income distribution in country i other than by changes in the extent of global integration.

(for example, changes in international transactions and flows)

Quality of the instrument - FIRST STAGE

First stage:

$$GLOB_{i,\tau} = \alpha_1 \times \Omega^i_{\tau-1} + \boldsymbol{\varphi}' \times \boldsymbol{\chi}_{i,\tau} + \nu_i + \nu_\tau + \varepsilon_{i,\tau}, \qquad (4)$$

Table: First stage regression results (2SLS)
(fixed-effects estimates, nine periods using 5-year averages)

Sample: (Countries)	Full (137)	Large (114)	Intermediate (70)	Small (56)
	(1)	(2)	(3)	(4)
$\Omega^i_{\tau-1}$	0.069*** (0.0155)	0.076*** (0.0159)	0.080*** (0.0162)	0.082*** (0.0168)
Controls	Yes	Yes	Yes	Yes
Fixed Effects				
Country	Yes	Yes	Yes	Yes
Period	Yes	Yes	Yes	Yes
Partial R-squared	0.024	0.029	0.039	0.050
F-Test on excluded instruments	19.88	22.67	24.63	23.81
F-Test, p-value	0.000	0.000	0.000	0.000
Stock-Yogo weak IV test	16.38	16.38	16.38	16.38
Observations	802	740	549	465
Period-obs. by country	$\succeq$ 2(9)	$\succeq$ 4(9)	$\succeq$ 6(9)	$\succeq$ 7(9)

Note: Robust standard errors in parentheses. The weak instruments hypothesis is rejected with the most stringent criterion - Stock and Yogo (2005) critical value of 10 percent.
*** p<0.01, ** p<0.05, * p<0.1

Two Stages Least Squares (2SLS)

Table: Globalization and income inequality, 1970-2014
(2SLS fixed-effects estimates, nine periods using 5-year averages)

Sample: (Countries)	Full (137)		Large (114)		Intermediate (70)		Small (56)	
Dep. var.:	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net
Method:	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GLOB	-0.0923	0.0964	-0.0581	0.122	0.193	0.313*	0.403**	0.491***
	(0.274)	(0.222)	(0.248)	(0.202)	(0.210)	(0.187)	(0.185)	(0.179)
GDP pc	0.0532	-0.00207	0.0571	0.00185	0.0787*	0.0241	0.0594	-0.00223
	(0.0533)	(0.0421)	(0.0513)	(0.0405)	(0.0462)	(0.0390)	(0.0411)	(0.0347)
ln POP	-12.76***	-4.744	-12.02***	-4.158	-9.701***	-2.973	-4.771	1.911
	(3.643)	(2.940)	(3.292)	(2.673)	(2.839)	(2.426)	(3.034)	(2.657)
Dependency	0.102**	0.0635	0.115**	0.0740*	0.123***	0.0697*	0.220***	0.160***
	(0.0516)	(0.0424)	(0.0488)	(0.0404)	(0.0467)	(0.0396)	(0.0435)	(0.0373)
Fixed Effects								
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Period	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	802	802	740	740	549	549	465	465
R-squared	0.183	0.112	0.211	0.124	0.280	0.096	0.319	-0.004
Period-obs. by country	$\succeq$ 2(9)	$\succeq$ 2(9)	$\succeq$ 4(9)	$\succeq$ 4(9)	$\succeq$ 6(9)	$\succeq$ 6(9)	$\succeq$ 7(9)	$\succeq$ 7(9)
Memo: OLS	0.242***	0.168***	0.242***	0.165***	0.201**	0.149**	0.172	0.122

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5. Results by development levels

Do results depend on development levels?

Classification of development levels by the World Bank (2015):

- Higher income countries if GNI per capita of USD 4,126 or more (including absolute high income and upper-middle income countries)
- Lower income countries - including all countries with GNI per capita below USD 4,126.

Higher income countries - OLS FE

Table: Globalization and income inequality, 1970-2014 - higher income (OLS fixed-effects estimates, nine periods using 5-year averages)

Sample: (Countries)	Full (81)		Large (69)		Intermediate (49)		Small (45)	
Dep. var.:	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net
Method:	FE	FE	FE	FE	FE	FE	FE	FE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GLOB	0.224***	0.144**	0.229***	0.145**	0.171*	0.125	0.157	0.108
	(0.0823)	(0.0665)	(0.0844)	(0.0681)	(0.0999)	(0.0864)	(0.113)	(0.0985)
GDP pc	0.0477	-0.0478	0.0319	-0.0633	0.0502	-0.0460	0.0534	-0.0442
	(0.0725)	(0.0592)	(0.0707)	(0.0555)	(0.0702)	(0.0564)	(0.0701)	(0.0564)
ln POP	-7.341*	-0.907	-4.966	1.256	-6.629*	-0.327	-6.201	0.146
	(3.986)	(3.456)	(3.648)	(2.985)	(3.822)	(3.150)	(3.906)	(3.196)
Dependency	0.199***	0.140**	0.231***	0.167***	0.185***	0.126**	0.187***	0.128**
	(0.0692)	(0.0584)	(0.0657)	(0.0535)	(0.0639)	(0.0493)	(0.0640)	(0.0489)
Fixed Effects								
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Period	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	524	524	491	491	404	404	380	380
R-squared	0.365	0.182	0.392	0.213	0.398	0.203	0.390	0.191
Period-obs. by country	$\succeq$ 2(9)	$\succeq$ 2(9)	$\succeq$ 4(9)	$\succeq$ 4(9)	$\succeq$ 6(9)	$\succeq$ 6(9)	$\succeq$ 7(9)	$\succeq$ 7(9)
Lower inc., OLS	0.404***	0.355***	0.411***	0.358***	0.521**	0.467**	0.361	0.352
Countries	56	56	45	45	21	21	11	11

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Higher income countries - 2SLS

Table: Globalization and income inequality, 1970-2014 - higher income (2SLS fixed-effects estimates, nine periods using 5-year averages)

Sample: (Countries)	Full (81)		Large (69)		Intermediate (49)		Small (45)	
Dep. var.:	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net
Method:	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GLOB	0.321*	0.405**	0.349**	0.436**	0.373**	0.469***	0.360*	0.462**
	(0.186)	(0.178)	(0.177)	(0.172)	(0.176)	(0.173)	(0.184)	(0.182)
GDP pc	0.0561	-0.0252	0.0428	-0.0367	0.0695*	-0.0131	0.0663	-0.0218
	(0.0453)	(0.0377)	(0.0443)	(0.0365)	(0.0416)	(0.0345)	(0.0418)	(0.0341)
ln POP	-5.832	3.148	-3.127	5.727*	-3.646	4.738	-3.426	4.988
	(4.090)	(3.618)	(3.691)	(3.227)	(3.664)	(3.196)	(3.638)	(3.176)
Dependency	0.217***	0.186***	0.252***	0.219***	0.219***	0.184***	0.219***	0.183***
	(0.0577)	(0.0503)	(0.0526)	(0.0453)	(0.0501)	(0.0426)	(0.0497)	(0.0422)
Fixed Effects								
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Period	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	524	524	491	491	404	404	380	380
Period-obs. by country	$\succeq$ 2(9)	$\succeq$ 2(9)	$\succeq$ 4(9)	$\succeq$ 4(9)	$\succeq$ 6(9)	$\succeq$ 6(9)	$\succeq$ 7(9)	$\succeq$ 7(9)
Part. R-squared	0.038	0.038	0.043	0.043	0.052	0.052	0.053	0.053
F-Test excl. IV	23.15	23.15	24.42	24.42	23.91	23.91	21.43	21.43
F-Test, p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

6. The role of transition countries

The Role of Transition Countries

Table: OLS FE - higher income, excluding China and East-European EU, 1970-2014 (OLS fixed-effects estimates, nine periods using 5-year averages)

Sample: (Countries)	Full (69)		Large (57)		Intermediate (44)		Small (41)	
Dep. var.:	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net
Method:	FE	FE	FE	FE	FE	FE	FE	FE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GLOB	0.107	0.0363	0.0989	0.0237	-0.0163	-0.0448	-0.0287	-0.0576
	(0.0805)	(0.0513)	(0.0813)	(0.0498)	(0.0732)	(0.0528)	(0.0786)	(0.0569)
GDP pc	0.112*	0.0171	0.0981	0.00316	0.130**	0.0283	0.133**	0.0291
	(0.0571)	(0.0360)	(0.0591)	(0.0338)	(0.0556)	(0.0306)	(0.0562)	(0.0316)
ln POP	-2.791	3.232	0.372	6.153**	-0.567	5.253**	-0.768	5.100*
	(4.288)	(3.528)	(3.639)	(2.541)	(3.639)	(2.502)	(3.664)	(2.533)
Dependency	0.228***	0.168***	0.267***	0.203***	0.229***	0.169***	0.229***	0.169***
	(0.0673)	(0.0540)	(0.0609)	(0.0443)	(0.0555)	(0.0330)	(0.0557)	(0.0333)
Fixed Effects								
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Period	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	454	454	421	421	362	362	344	344
R-squared	0.292	0.161	0.334	0.222	0.357	0.222	0.361	0.228
Period-obs. by country	$\succeq$ 2(9)	$\succeq$ 2(9)	$\succeq$ 4(9)	$\succeq$ 4(9)	$\succeq$ 6(9)	$\succeq$ 6(9)	$\succeq$ 7(9)	$\succeq$ 7(9)

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The Role of Transition Countries - cont.

Table: 2SLS - higher income, excluding China and East-European EU, 1970-2014 (2SLS fixed-effects estimates, nine periods using 5-year averages)

Sample: (Countries)	Full (69)		Large (57)		Intermediate (44)		Small (41)	
Dep. var.:	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net	Gini market	Gini net
Method:	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GLOB	-0.429	-0.126	-0.396	-0.0901	-0.551	-0.190	-0.549	-0.181
	(0.377)	(0.272)	(0.346)	(0.254)	(0.418)	(0.286)	(0.413)	(0.284)
GDP pc	0.110**	0.0162	0.0931*	0.00201	0.128***	0.0278	0.143***	0.0313
	(0.0505)	(0.0327)	(0.0492)	(0.0311)	(0.0473)	(0.0295)	(0.0496)	(0.0297)
ln POP	-6.828	2.005	-2.909	5.399**	-3.606	4.427**	-3.914	4.355**
	(4.226)	(3.228)	(3.222)	(2.220)	(3.317)	(2.136)	(3.382)	(2.192)
Dependency	0.151**	0.145***	0.202***	0.188***	0.172***	0.153***	0.175***	0.156***
	(0.0697)	(0.0530)	(0.0560)	(0.0417)	(0.0517)	(0.0343)	(0.0503)	(0.0332)
Fixed Effects								
Country	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Period	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	454	454	421	421	362	362	344	344
Period-obs. by country	$\succeq$ 2(9)	$\succeq$ 2(9)	$\succeq$ 4(9)	$\succeq$ 4(9)	$\succeq$ 6(9)	$\succeq$ 6(9)	$\succeq$ 7(9)	$\succeq$ 7(9)
Part. R-squared	0.015	0.015	0.018	0.018	0.016	0.016	0.018	0.018
F-Test excl. IV	7.66	7.66	8.56	8.56	6.82	6.82	6.67	6.67
F-Test, p-value	0.006	0.006	0.004	0.004	0.010	0.010	0.010	0.010

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

7. Summary and outlook

Summary

- Replication of OLS results (of previous studies) - there is a significant relationship between our measures of globalization and income inequality.
- Interaction of natural disasters and geography to predict a time-varying instrument for openness and to deal with the endogeneity problem (identification strategy).
- 2SLS results do not provide evidence of an effect of globalization on income inequality in the full country sample.
- OLS and 2SLS results are heterogenous across country samples (sample selection problem).

Summary - cont.

- Both, OLS and 2SLS report a significant relationship within the higher income sample.
- However, **no significant relationship** (OLS and 2SLS) in the higher income sample after **excluding China** and/or Eastern European (or Post-Soviet) **transition countries**.

  Our results suggest that the observed empirical relationship between globalization and income inequality within higher income countries is predominantly driven by the transition countries.

  The combination of country-specific processes during the transformation and the rapid globalization shift of these countries might be the key drivers of the observed relationship.

  Our results cannot confirm a significant relationship in the rest of the more developed world!

Outlook - further robustness checks and extensions

Robustness checks (i.a.):

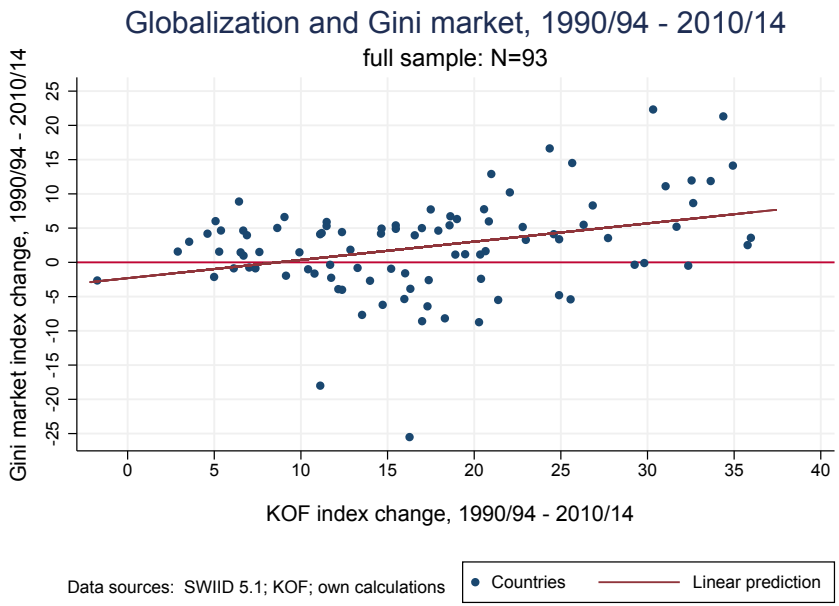
- Control for direct effects of large scale disasters in other countries on income distribution within countries.
- Using additional controls - for example: human capital, institutions, democracy-transition, labor-capital ratio etc.
- Effect of a one period lag of globalization on Gini marekt and net (time delay of the effect).
- Further Jackknife tests (excluding countries), and variation of period-coverages.

Extensions and discussion (i.a.):

- Country case studies - especially for transformation countries.
- Nonlinear relationship between globalization and income inequality?

APPENDIX

Figure: Change in globalization and income inequality, 1990/94-2010/14 - in all income groups



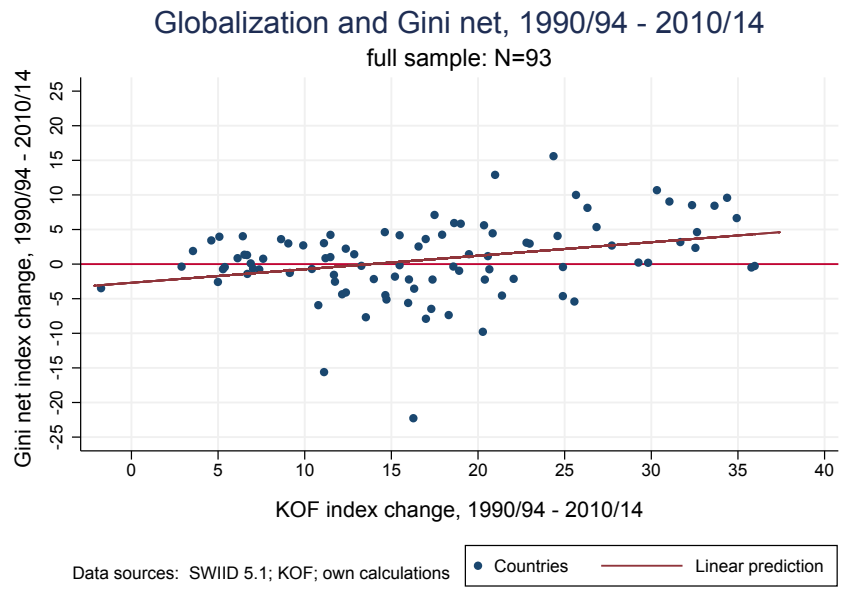
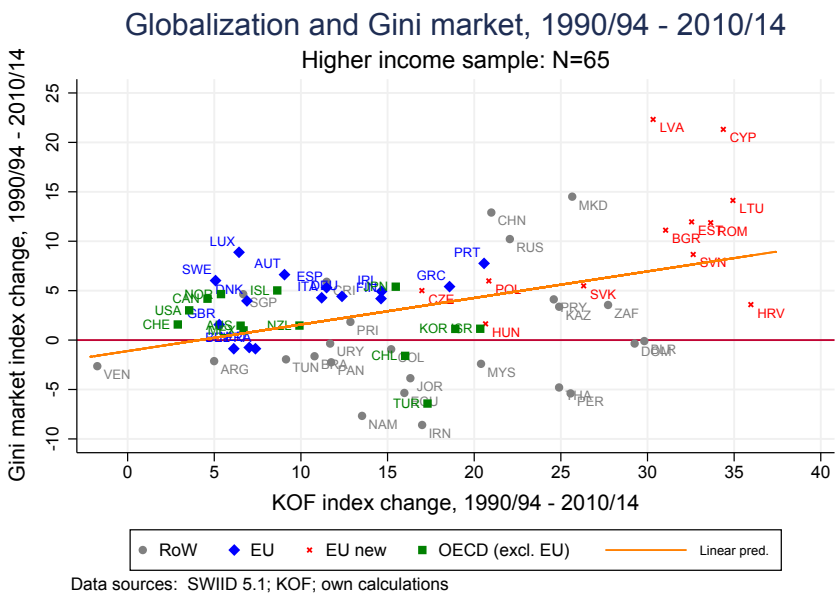
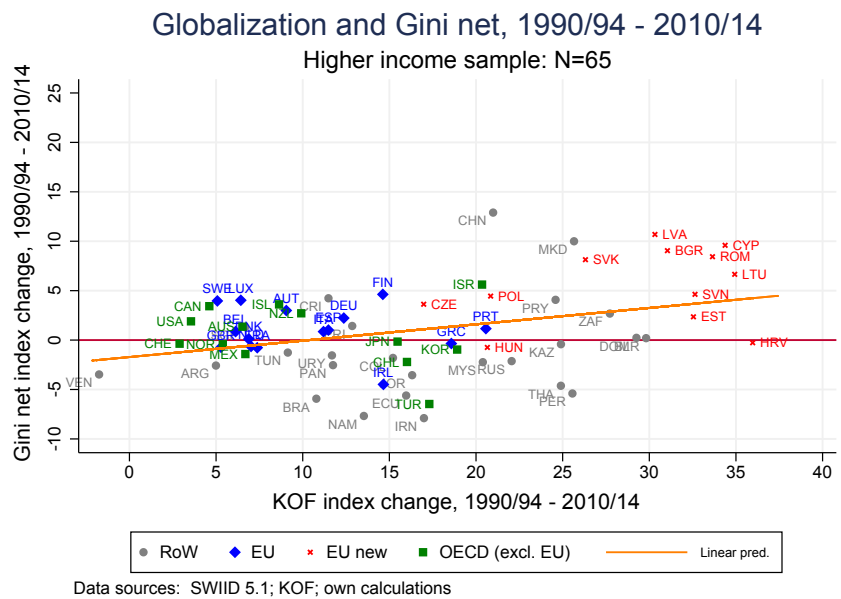


Figure: Change in KOF globalization and income inequality, 1990/94-2010/14 - higher income groups



Data sources: SWIID 5.1; KOF; own calculations



Data sources: SWIID 5.1; KOF; own calculations

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