

# Finance and Income Inequality Revisited

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EUROSYSTEM

## Motivation: Financial Development (FD) & Income Inequality

- Theoretically, impact of FD on inequality is ambiguous:
  - Negative relationship
    - More finance makes it easier for the poor to borrow for viable projects, which may reduce income inequality
      - Galor and Moav (2004, Rev. of Ec. Studies)
    - Financial imperfections are binding on the poor  
Relaxation of credit constraints benefit the poor
      - Beck, Demirgüç-Kunt and Levine (2007, J. of Ec. Growth)
  - Positive relationship
    - Improvements in the formal financial sector benefit the well-off who rely less on informal connections for capital
      - Greenwood and Jovanovic (1990, J. of Pol. Ec.)

## Motivation: Financial Development (FD) & Income Inequality

- Empirically, the relationship is also very mixed
  - Several studies report that countries with higher levels of financial development have less income inequality
    - Li et al. (1998 *The Ec.J.*), Clarke et al. (2006, *So.Ec.J.*), Beck et al. (2007, *J.Ec.Gr.*), Hamori and Hashiguchi (2012, *J.of Asian Ec.*)
  - Some report a non-linear relationship
    - Kim and Lin (2011, *J.of Comp.Ec.*), Law et al., (2014, *Em.Mar.Fin.&Tr.*)
  - Some report mixed results
    - Bahmani-Oskooee and Zhang (2015, *Appl.Ec.*)
  - Some report a positive relationship
    - Jauch and Watzka (2012), Jaumotte et al. (2013, *IMF Ec.Rev.*), Li and Yu (2014, *Appl. Ec.*), Denk and Cournède (2015, *OECD*)

## Motivation: Financial Liberalization (FL) & Income Inequality

- Theoretically, FL may affect income distribution
  - If FL reduces credit market imperfections hurting the poor, income inequality may be reduced
    - Banerjee and Newman (1993, J.of Pol.Ec.)
  - Financial reforms may lead to more equal access to credit, thereby improving the efficiency of the domestic financial system
    - Abiad et al. (2008, J.of Dev.Ec.)
- Empirically, some recent studies (based on cross-country data) report that FL reduces income inequality
  - Agnello et al. (2012, Ec.L.), Delis et al. (2014, Rev.of Fin.), Li and Yu (2014, Appl.Ec.)
- Some conclude that FL increases inequality
  - Jaumotte and Osuorio Buitron (2015, IMF)

## Motivation: Banking Crisis (BC) & Income Inequality

- Causality from income inequality to BC has received substantial attention
  - High or rising income inequality may cause low-income groups to leverage in order to increase or maintain consumption levels which, in turn, may increase the likelihood of a financial crisis
  - The relative income theory, habit formations and a "keeping up with the Joneses" phenomenon may explain such behaviour
    - Kumhof and Rancière (2011, AER)
- Empirical cross-country evidence in support of causality running from inequality to financial crises is weak at best
  - Atkinson and Morelli (2011), Bordo and Meissner (2012, JIMF), Gu and Huang (2014, Rev.of Dev.Ec.)

## Motivation: Banking Crisis (BC) & Income Inequality

Regarding effect of BC on Income Inequality

- Conventional wisdom says that the poor suffer disproportionately from recessions following a BC
  - However, Denk and Cournede (2015, OECD) do not find significant effects of banking crises in their analysis of income inequality in OECD countries
  - Only few studies analyze the causal relationship between BC and income inequality for a broader set of countries and report mixed findings
    - Baldacci et al. (2002, IMF), Agnello and Sousa (2012, Appl.Ec.L.), Li and Yu (2014, Appl.Ec.)

## Our Contributions (1)

1. We simultaneously include FD, FL and BC in our empirical analysis of the relationship between finance and income inequality
  - Previous studies include at best two of these simultaneously
2. We use different indicators of financial liberalization
  - Like others, we use the FL data of Abiad et al. (2010, IMF)
  - We construct an alternative based on the economic freedom index of the Fraser Institute (Gwartney et al., 2015)
3. We examine whether the impact of FL is conditioned by
  1. the level of financial development and
  2. economic and political institutional quality

## Our Contributions (2)

- Bumann and Lensink (2016, JIMF) argue
  - FL will improve income distribution (reduce income inequality) in countries where financial depth is high
    - FL reduces borrowing costs, which increases deposit rates
    - This improves income of the savers (the poor) / reduces inequality
    - Interest rate elasticity of loan demand increases with financial depth implying a stronger reduction in inequality in financially “deep” countries
  - They provide evidence for this conditionality using indicators of capital account liberalization
- We examine whether the impact of FL is conditioned by FD using broader measures of financial liberalization



## Our Contributions (3)

- Delis et al. (2014, Rev.of Fin.) and Law et al. (2014, Em.Mar.Fin.&Tr.) show that
  - the impact of finance may be conditioned by the quality of institutions
    - Under low quality of economic institutions FD and/or FL may not reduce inequality due to lack of judicial protection for the poor
      - Chong and Gradstein (2007, Rev.Ec.&Stat.)
- Rajan and Zingales (2003, J.of Fin.Ec.) show that
  - under weak political institutions, de jure political representation is dominated by de facto political influence, allowing established interests to influence access to finance so that they benefit more from FD than the poor

## Data Sample

- Our sample covers data for the years 1971 until 2010 allowing for up to 7 different 5-year average periods
- In total 123 different countries are covered
- The panel is highly unbalanced
  - It includes 530 observations (out of a maximum of 861, i.e. 62%)
    - 1976-1980 contains up to 33 countries
    - 1981-1985 contains up to 38 countries
    - 1986-1990 contains up to 62 countries
    - 1991-1995 contains up to 81 countries
    - 1996-2000 contains up to 115 countries
    - 2001-2005 contains up to 105 countries
    - 2006-2010 contains up to 96 countries

## Data: Dependent Variable

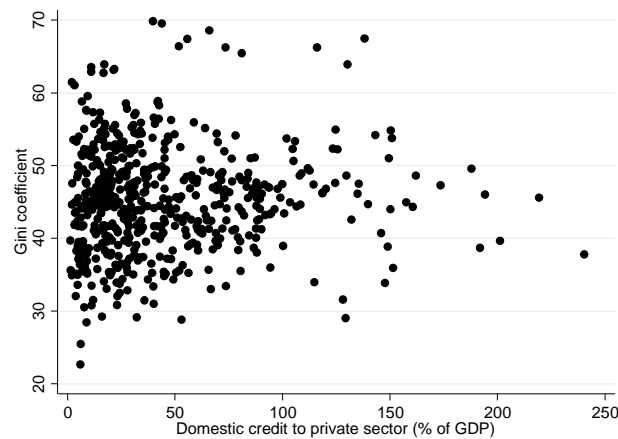
- Gini coefficient based on households' income from Solt's (2009) Standardized World Income Inequality Database
  - Index that represents household income *before* taxes, as this shows inequality exclusive of fiscal policy
  - SWIID most comprehensive database and allows comparison across countries, because it standardizes income
  - Gini coefficient is less than perfect for measuring income inequality, but data availability dictates the choice
  - We construct averages of the Gini coefficients across 5 years
    - Macroeconomic data are noisy, especially for income inequality data
    - Annual SWIID data are imputed for years for which no information was available in the underlying databases
    - Some explanatory variables are only available for 5-year intervals

## Data: Financial Development (FD)

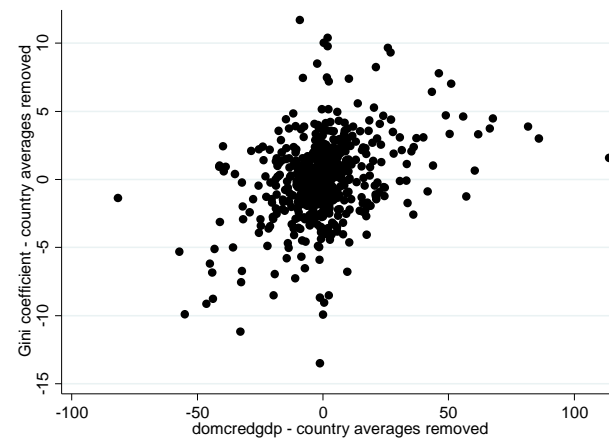
- Private credit divided by GDP
  - Better than M2 over GDP, which does not measure channeling of society's savings to private sector projects
    - Beck et al. (2007, J. of Ec.Gr.)
  - The impact of FD runs via the banking sector, rather than capital market capitalization
    - Gimet and Lagoarde-Segot (2011, JBF)
    - Using stock market capitalization as percentage of GDP reduces the sample by almost half while the results go in the same direction
  
- Data measured at the end of the preceding 5-year period

## Scatter Plot FD and Income Inequality

- Raw data



- Country averages removed



## Data: Financial Liberalization (FL)

### 1. Data of Abiad et al. (2010, IMF)

- Contains 7 sub-indices on banking regulatory practices measured on a scale from 0 to 3 (fully repressed to fully liberalized)
- We drop the sub-index on banking supervision
- Remaining 6:
  - credit controls and reserve requirements
  - interest rate controls
  - banking-sector entry
  - capital-account transactions
  - privatization of banks
  - liberalization of securities markets

SJ1

capital regulation? check!!

Sturm Jan-Egbert, 26/02/2016

## Data: Financial Liberalization (FL)

1. Data of Abiad et al. (2010, IMF)
2. Data from the Fraser Institute on economic freedom
  - Has broader coverage of financial sector & includes recent years
  - We use four sub-indices
    - freedom to own foreign currency bank accounts
    - black market exchange rate
    - controls of the movement of capital
    - extent to which there are credit and interest rate controls
      - extent to which the banking industry is privately owned
      - extent to which credit is supplied to the government sector
      - extent to which interest rate controls interfere with the credit market
  - Data measured at the end of the preceding 5-year period

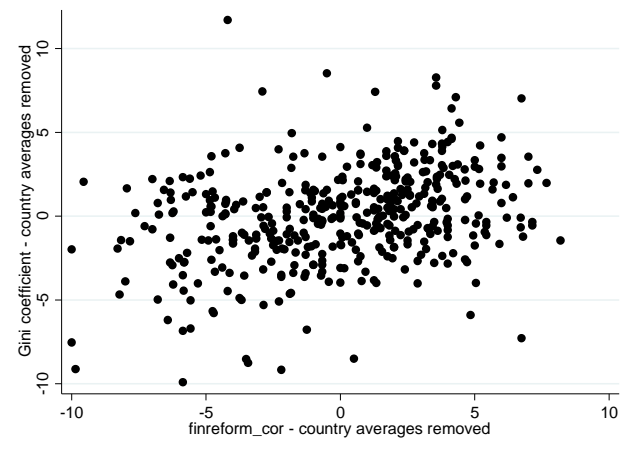


## Scatter Plot FL-Abiad and Income Inequality

- Raw data

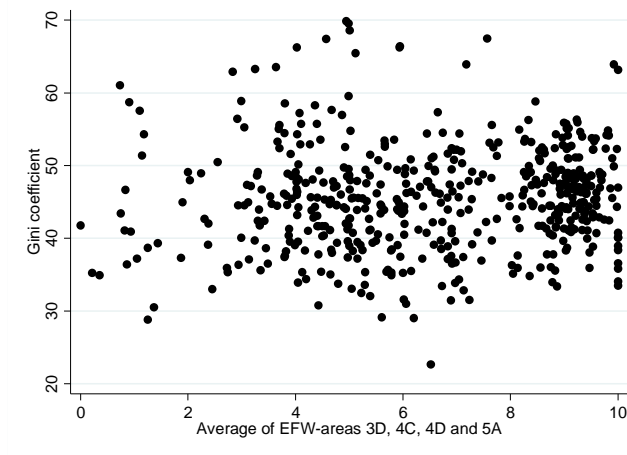


- Country average removed

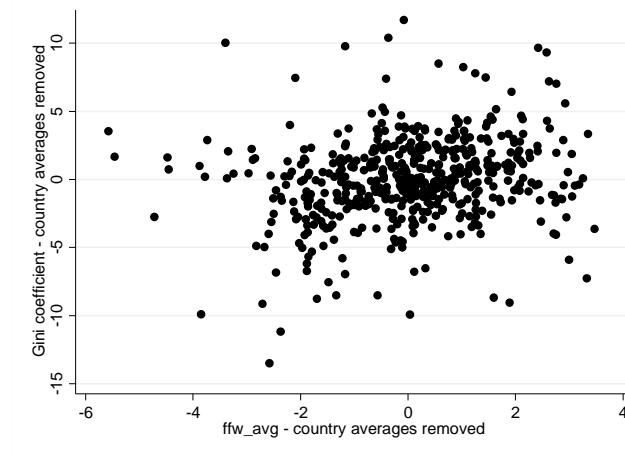


## Scatter Plot FL-EFW and Income Inequality

- Raw data



- Country average removed



## Data: Banking Crisis (BC)

- Data from Laeven and Valencia (2013, IMF)
  - Crises are identified based on several criteria:
    - signs of financial distress in the banking system.
    - “significant banking policy intervention measures” of which they identify six (such as a deposit freeze or nationalizations).
      - At least three of these measures need to have been implemented for a crisis to be classified as systemic
  - three other criteria:
    - share of nonperforming loans exceed 20%, bank closures make up at least 20% of banking assets and fiscal restructuring costs exceed 5% GDP
- Crisis dummy is one if a banking crisis started somewhere during the preceding five-year period

## Main Model Specification

- Our unbalanced dynamic panel model equation:

$$\begin{aligned} Ineq_{i,t} = & a_i + b_1 FD_{i,t-1} + b_2 FL_{i,t-1} + b_3 BC_{i,t-1} \\ & + b_4 interactions + b_5 X_{i,t-1} + u_{i,t} \end{aligned}$$

- $a_i$  denote the country-fixed effects
- $u$  denotes the error term
- $X$  is a vector of additional control variables
- *interactions* include the interaction terms we focus on
  - We allow the impact of  $FL$  on  $Ineq$  to be conditional on
    - the level of financial sector development (FD)
    - the quality of political and/or economic institutions

## Data: Institutional Interaction Variables

- ICRG Database
  - Quality of political institutions (PI):
    - Democratic accountability
  - Quality of economic institutions (EI):
    - Sum of (appropriately re-weighted versions of) bureaucratic quality, corruption and law and order

## Summary Statistics of our Main Variables

Variable	Obs	Mean	St. Dev.	Min	Max	Correlation with						
						1	2	3	4	5	6	7
<i>Main variables</i>												
1 Gini (Ineq)	530	45.37	7.26	22.66	69.85	1						
2 Dumsysbankcr (BC)	530	0.16	0.36	0	1	0.07	1					
3 Domcredgdp (FD)	530	46.06	39.45	1.19	240.34	0.05	-0.14	1				
4 finreform_corr (FL <sub>A</sub> )	426	11.13	5.06	0	18	0.20	-0.10	0.43	1			
5 ffw_avg (FL <sub>EFW</sub> )	518	6.55	2.44	0	10	0.07	-0.14	0.44	0.74	1		
6 Democ (PI)	419	4.14	1.47	0	6	0.04	-0.12	0.42	0.48	0.48	1	
7 Instqual (EI)	419	3.61	1.38	0.333	6	-0.03	-0.14	0.61	0.48	0.50	0.65	1

## Additional Control Variables

- Based upon our screening of the literature we collected all kinds of additional variables that might explain income inequality
- Each of these is added to our specification using the Abiad et al. version of FL
  - Only significant variables are left in

Variable	Description	Source
<i>Additional variables</i>		
govconsgdp	General government final consumption expenditure (% of GDP)	WDI
lrgdppc	Log(GDP per capita - constant 2005 US\$)	WDI
tradegdp	Trade (% of GDP)	WDI
lpop	Log(Population)	WDI
inflation	Inflation, consumer prices (annual %)	WDI
grrgdp	GDP growth (annual %)	WDI
agrshare	Agriculture, value added (% of GDP)	WDI
indshare	Industry, value added (% of GDP)	WDI
natresshare	Total natural resources rents (% of GDP)	WDI
efw_avg	Average of non-financial EFW-areas	EFW
kaopen	Chinn-Ito index	Chinn and Ito
left	Orientation of the Chief Executive Party is left-wing	DPI
civlib	Freedom in the World: Civil Liberties	Freedom House
eduexpgni	Adjusted savings: education expenditure (% of GNI)	WDI
schoolenprim	School enrollment, primary (% gross)	WDI
schoolensec	School enrollment, secondary (% gross)	WDI
schoolenrtert	School enrollment, tertiary (% gross)	WDI
glob_act_flows	Economic Globalization: Actual Flows	KOF
glob_restr	Economic Globalization: Restrictions	KOF
glob_soc	Social Globalization	KOF
glob_pol	Political Globalization	KOF
polrel	Ethnic Polarization (relevant groups), EPR	EPR-ETH
elfrel	Ethnic Fractionalization (relevant groups), EPR	EPR-ETH
lifeexpect	Life expectancy at birth, total (years)	WDI
termsofttrade	Net barter terms of trade index (2000 = 100)	WDI
fdigdp	Foreign direct investment, net inflows (% of GDP)	WDI
gfcfgdp	Gross fixed capital formation (% of GDP)	WDI
dumcurcr	Start of a Currency Crisis	Laeven and Valencia
dumsovdebtcr	Sovereign Debt Crisis (default date)	Laeven and Valencia
dumsovdebtrestruct	Sovereign Debt Restructuring year	Laeven and Valencia

## Additional Control Variables



## Basic Regressions

VARIABLES	(1)	(2)	(3)	(4)
Start of a Systemic Banking Crisis during t-7 and t-3	0.876** (2.022)			1.049** (2.439)
Domestic credit to private sector (% of GDP)		0.0652*** (5.089)		0.0518*** (4.278)
Financial lib.: Abiad et al. index (corrected)			0.256*** (4.153)	0.155*** (3.120)
Observations	426	426	426	426
R-squared	0.011	0.173	0.111	0.217
Number of cntid	89	89	89	89
Hausman test (p-value)	0.886	0.0955	0.484	0.397
VARIABLES	(1)	(2)	(3)	(4)
Start of a Systemic Banking Crisis during t-7 and t-3	1.225*** (2.776)			1.453*** (3.210)
Domestic credit to private sector (% of GDP)		0.0603*** (4.654)		0.0538*** (4.462)
Financial lib.: Avg. of EFW-areas 3D, 4C, 4D and 5A			0.426** (2.451)	0.244 (1.650)
Observations	518	518	518	518
R-squared	0.017	0.126	0.044	0.157
Number of cntid	121	121	121	121
Hausman test (p-value)	0.818	0.00972	0.388	0.0704

- All finance-related variables are significant:
  - Higher FD, FL and BC “Granger causes” higher inequality
  - Results are independent of measures of FL used
- Country-fixed effects often not needed

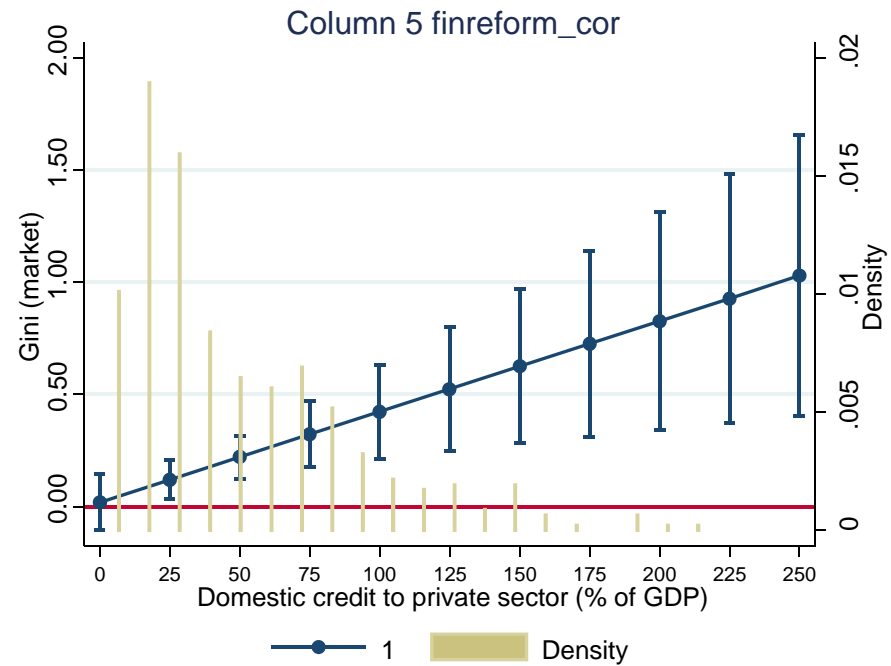
## Regression Results Allowing for Conditionality (Abiad et al. data for FL)

VARIABLES	(5) +interaction	(6) +democ	(7) +democ	(8) +democ	(9) +ec.glob-flows
Start of a Systemic Banking Crisis during t-7 and t-3	0.976** (2.387)	1.026*** (2.800)	0.940*** (2.661)	0.903*** (2.725)	0.895** (2.515)
Domestic credit to private sector (% of GDP)	-0.0168 (-0.507)	0.0349*** (3.405)	0.0297*** (3.002)	0.0464 (1.065)	0.0247*** (2.695)
Financial lib.: Abiad et al. index (corrected)	0.0186 (0.245)	0.202*** (3.771)	-0.146 (-1.197)	-0.178 (-1.230)	-0.198 (-1.643)
c.domcredgdp#c.finreform_cor	0.00404** (2.325)				
ICRG: Democratic Accountability		-0.638** (-2.430)	-1.641*** (-3.452)	-1.557*** (-3.677)	-1.605*** (-3.619)
c.democ#c.finreform_cor			0.0895*** (2.920)	0.0957*** (2.653)	0.0857*** (2.863)
c.domcredgdp#c.democ				-0.00325 (-0.429)	
Economic Globalization: Actual Flows					0.0628*** (2.644)
Observations	426	345	345	345	338
R-squared	0.242	0.194	0.219	0.221	0.261
Number of cntid	89	86	86	86	85
Hausman test (p-value)	0.0779	0.0480	0.000151	0.000287	7.27e-05
F-test on finreform_cor (p-value)	0.00115		0.000105	6.11e-05	0.00153
F-test on democ (p-value)			0.00378	0.00457	0.00218
F-test on domcredgdp (p-value)	5.11e-06			0.0116	

- Quality of economic institutions do not appear to matter (not shown)
- Quality of political institutions do
- Interaction term FDxFL matters
- Interaction term FLxPI is sign.
- However, FDxPI is not significant
- Only Ec Glob. is significant as

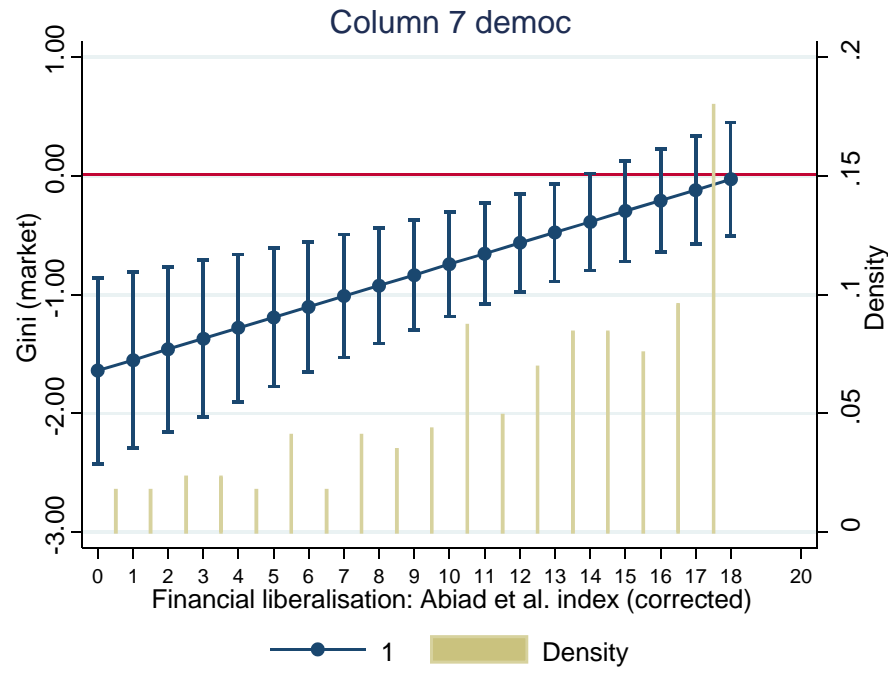
# Effect of FL on Inequality Conditional on FD

(Abiad et al. data for FL)

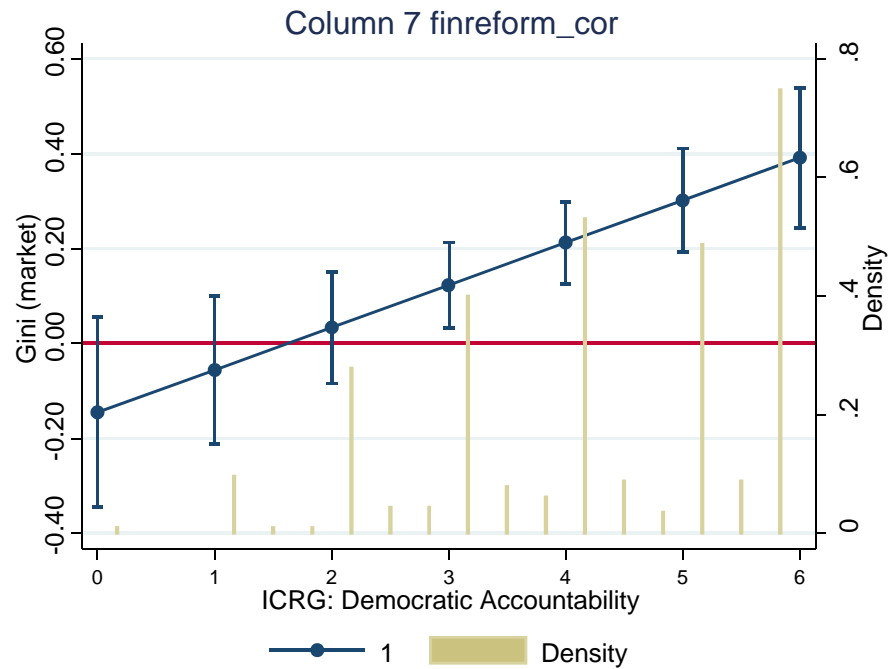


# Effect of PI on Inequality Conditional on FL

(Abiad et al. data for FL)



# Effect of FL on Inequality Conditional on PI (Abiad et al. data for FL)

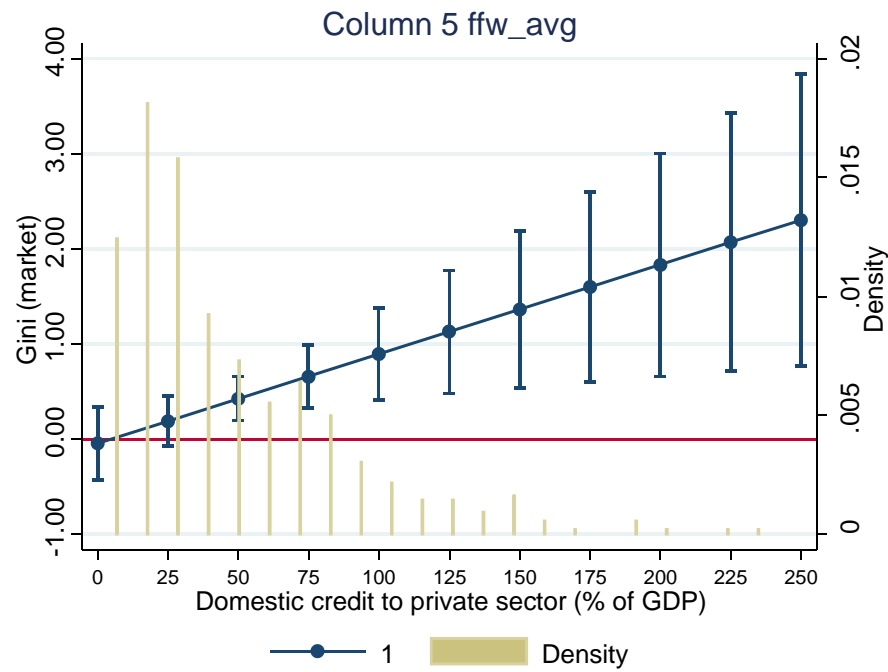


## Regression Results Allowing for Conditionality (EFW data for FL)

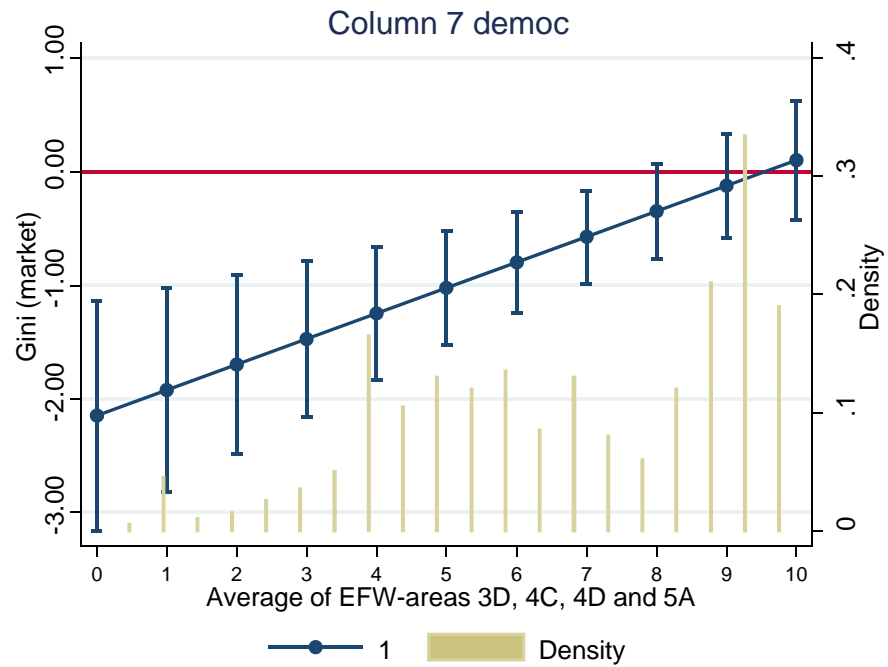
VARIABLES	(5) +interaction	(6) +democ	(7) +democ	(8) +democ	(9) +ec.glob-flows
Start of a Systemic Banking Crisis during t-7 and t-3	1.394*** (3.261)	1.047*** (2.718)	0.951** (2.548)	0.910** (2.579)	0.923** (2.504)
Domestic credit to private sector (% of GDP)	-0.0305 (-0.736)	0.0367*** (3.886)	0.0305*** (3.457)	0.0572 (1.330)	0.0217** (2.557)
Financial lib.: Avg. of EFW-areas 3D, 4C, 4D and 5A	-0.0502 (-0.215)	0.190 (1.497)	-0.639* (-1.908)	-0.736** (-2.259)	-0.589* (-1.906)
c.domcredgdp#c.ffw_avg	0.00942** (2.113)				
ICRG: Democratic Accountability		-0.727*** (-2.785)	-2.146*** (-3.487)	-2.061*** (-3.261)	-1.941*** (-3.396)
c.democ#c.ffw_avg			0.224*** (2.928)	0.245*** (3.128)	0.182** (2.542)
c.domcredgdp#c.democ				-0.00506 (-0.690)	
Economic Globalization: Actual Flows					0.0840*** (3.572)
Observations	518	410	410	410	403
R-squared	0.177	0.123	0.162	0.166	0.215
Number of cntid	121	110	110	110	109
Hausman test (p-value)	0.0319	0.173	0.0781	0.0659	0.0568
F-test on ffw_avg (p-value)	0.00561		0.00135	0.00139	0.0217
F-test on democ (p-value)			0.00259	0.00739	0.00203
F-test on domcredgdp (p-value)	8.43e-06			0.00216	

- Quality of economic institutions do not appear to matter (not shown)
- Quality of political institutions do
- Interaction term  $FD \times FL$  matters
- Interaction term  $FL \times PI$  is sign.
- However,  $FD \times PI$  is not significant
- $Ec \times Glob$  is significant as

# Effect of FL on Inequality Conditional on FD (EFW data for FL)

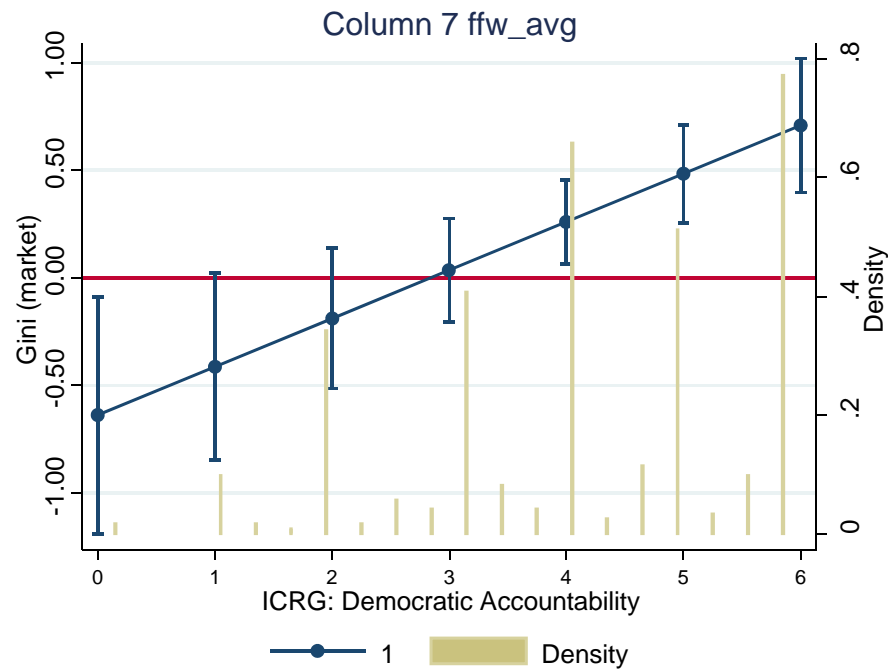


# Effect of PI on Inequality Conditional on FL (EFW data for FL)





# Effect of FL on Inequality Conditional on PI (EFW data for FL)



## Conclusions so far

- Financial development, financial liberalization and banking crises increase income inequality
  - Positive impact of financial liberalization on the Gini coefficient is higher if financial development is higher
- Better political institutions reduce income inequality
- The positive impact of financial liberalization on income inequality is higher in countries with a higher quality of political institutions
- Results do not suggest that the impact of finance on income inequality is conditioned by the quality of economic institutions.

## Robustness Checks: Random Effects / Instrumental Variables

- Hausman tests often do not clearly indicate that fixed-country effects need to be used
  - Follow Clarke et al. (2006, So.Ec.J.) and estimate random effects models
- Additional advantage: can use time-invariant instruments
  - Previous literature uses legal origin dummies to instrument FD
    - Clarke et al. (2006, So.Ec.J.), Kappel (2010), Kunieda et al. (2014, M.Dyn.), Law et al. (2014, Em.Mark.Fin.&Tr.)
  - We use the following legal origin dummies as instruments
    - Common law (UK), French civil law, German civil law, Scandinavian law, Socialist law
      - Source: La Porta, Lopez-de-Silanes and Shleifer (2008, JEL)

## Random Effects and Instrumental Variables

(Abiad et al. data for FL)

VARIABLES	Abiad et al. index (corrected)			
	(1) FD	(2) +IV	(3) PI	(4) +IV
Start of a Systemic Banking Crisis during t-7 and t-3	1.012** (2.513)	0.954*** (2.687)	1.017*** (2.862)	1.023*** (3.559)
Domestic credit to private sector (% of GDP)	-0.0188 (-0.578)	-0.0872* (-1.790)	0.0283*** (3.426)	0.0124 (0.560)
Financial liberalisation	0.0338 (0.455)	-0.00983 (-0.137)	-0.109 (-0.924)	-0.179 (-1.565)
c.domcredgdp#c.finlib	0.00391** (2.202)	0.00708*** (3.688)		
ICRG: Democratic Accountability			-1.456*** (-3.092)	-1.706*** (-3.569)
c.democ#c.finlib			0.0817*** (2.722)	0.105*** (3.640)
Observations	426	426	345	345
Number of cntid	89	89	86	86
F-test on domcredgdp (p-value)	8.57e-08			
F-test on finlib (p-value)	0.000673	0.000638	4.49e-05	1.77e-05
F-test on democ (p-value)			0.00836	0.000754

## Random Effects and Instrumental Variables (EFW data for FL)

VARIABLES	Avg. of EFW-areas 3D, 4C, 4D and 5A			
	(5) FD	(6) +IV	(7) PI	(8) +IV
Start of a Systemic Banking Crisis during t-7 and t-3	1.436*** (3.441)	1.221*** (2.979)	1.010*** (2.720)	1.000*** (3.098)
Domestic credit to private sector (% of GDP)	-0.0358 (-0.900)	-0.138** (-2.362)	0.0277*** (3.613)	0.00508 (0.191)
Financial liberalisation	-0.0401 (-0.180)	-0.0317 (-0.128)	-0.618* (-1.860)	-0.712** (-2.374)
c.domcredgdp#c.finlib	0.00919** (2.087)	0.0167*** (2.696)		
ICRG: Democratic Accountability			-2.020*** (-3.257)	-2.236*** (-4.265)
c.democ#c.finlib			0.217*** (2.831)	0.258*** (3.987)
Observations	518	518	410	410
Number of cntid	121	121	110	110
F-test on domcredgdp (p-value)	3.80e-06			
F-test on finlib (p-value)	0.00761	0.00141	0.00187	0.000113
F-test on democ (p-value)			0.00436	9.09e-05

## Robustness Checks: OECD Countries Only

- Some previous studies only focus on the OECD
- Does the result that our financial variables have a positive impact on inequality hold when focusing on the OECD?
  - As the sample is more homogenous and its size much smaller, we expect the interaction terms to become insignificant

## OECD Countries Only

VARIABLES	Abiad et al. index (corrected)			Avg. of EFW-areas 3D, 4C, 4D and 5A		
	(1) no interaction	(2) interaction	(3) +democ	(4) no interaction	(5) interaction	(6) +democ
Start of a Systemic Banking Crisis during t-7 and t-3	2.872*** (5.154)	2.763*** (5.225)	2.140*** (3.907)	2.784*** (3.941)	2.703*** (3.916)	1.915*** (2.848)
Domestic credit to private sector (% of GDP)	0.0636*** (4.347)	0.0395 (0.783)	0.0412** (2.537)	0.0571*** (3.989)	0.0369 (0.435)	0.0385*** (3.294)
Financial liberalisation	0.302** (2.732)	0.229 (1.246)	-0.0980 (-0.112)	0.768** (2.596)	0.645 (1.129)	-0.743 (-0.422)
c.domcredgdp#c.finlib		0.00142 (0.513)			0.00227 (0.242)	
ICRG: Democratic Accountability			-1.750 (-0.731)			-2.133 (-0.961)
c.democ#c.finlib			0.0913 (0.546)			0.239 (0.766)
Observations	136	136	99	144	144	106
R-squared	0.567	0.569	0.376	0.498	0.499	0.290
Number of cntid	22	22	22	24	24	24
Hausman test (p-value)	4.79e-06	1.79e-05	0.000898	0	0	0.000209
F-test on domcredgdp (p-value)		0.00122			0.00250	
F-test on finlib (p-value)		0.0381	0.181		0.0555	0.174
F-test on democ (p-value)			0.673			0.591

## Robustness Checks: Cross-Section Analysis

- By correcting for country-specific effects, we concentrate on the time series dimension
  - Most other papers use a cross-section set-up
  - Scatter plots show that this might make a (big) difference
  - Are our results robust to a cross-section analysis?



## Cross-Section Analysis

VARIABLES	Instrumental variables					
	(4)	(5)	(6)	(7)	(8)	(9)
	1996-2000	1996-2005	1996-2010	1996-2000	1996-2005	1996-2010
Start of a Systemic Banking Crisis during t-7 and t-3	4.104** (2.444)	3.686** (2.322)	3.454** (2.152)	3.224* (1.702)	2.992 (1.412)	2.804 (1.583)
Domestic credit to private sector (% of GDP)	-0.00606 (-0.269)	0.00561 (0.265)	0.00755 (0.372)	-0.0690 (-1.277)	-0.0452 (-0.910)	-0.0325 (-0.813)
Financial lib.: Abiad et al. index (corrected)	1.372** (2.183)	1.188** (2.009)	1.007 (1.664)	1.312** (2.196)	1.223** (2.059)	1.143 (1.600)
ICRG: Democratic Accountability	0.381 (0.179)	0.218 (0.109)	0.0577 (0.0279)	-0.430 (-0.186)	-0.305 (-0.138)	-0.0928 (-0.0338)
c.democ#c.finreform_cor	-0.126 (-0.819)	-0.110 (-0.756)	-0.0817 (-0.558)	-0.0327 (-0.182)	-0.0482 (-0.273)	-0.0526 (-0.263)
Observations	78	77	66	78	77	66
R-squared	0.198	0.183	0.187	0.235	0.222	0.221
F-test on finreform_cor (p-value)	0.00222	0.00540	0.0125	5.57e-05	1.59e-06	0.000126
F-test on democ (p-value)	0.184	0.182	0.289	0.593	0.496	0.584

## Conclusions

- Finance appears to increase income inequality
  - FL and BC are significant in both panel and cross-section set-up
    - Regarding BC, we are confirming conventional wisdom that says that the poor suffer disproportionately from a Banking Crisis
  - FD is only significant in the panel set-up
  - The effect of FL appears conditional on both FD and PI (in the broad sample panel set-up)
  
- That does not mean that financial development and financial liberalization is overall bad for the poor
  - there is a large literature showing that finance plays a positive role in promoting economic development



**Thank you for your attention!**