



# Capital flows to developing countries in an era of global imbalances – the role of institutional development indicators

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# Agenda

1. Aim of the study of capital flows to developing countries
2. Methodology of the study
  - a. Analysed group of countries
  - b. Sources of data
  - c. Procedure of analysis
3. Results of the study

## **Aim of the study**

- Analyse determinants of capital flows to developing countries, including a subgroup of CESEE countries, during an era of global imbalances (1998-2017).
- Evaluate significance of institutional development indicators for capital inflows to developing countries.

# Methodology of the study

1. The analysed group of developing countries
  - average yearly GDP per capita of less than 20,000 USD (in current terms)
  - population of at least 1 million
  - no tax haven
  - data on the balance of payments (for the major BoP components such as the current and financial accounts) are missing for at least 3 years, 15% of the time, over the sample period of 1998-2017

The selection criteria are met by 89 economies, including 14 CESEE

# Methodology of the study

Albania	Costa Rica	Jordan	Niger	Thailand
Angola	Croatia	Kazakhstan	Nigeria	Togo
Argentina	Czech Republic	Kenya	Oman	Turkey
Armenia	Djibouti	Kyrgyz Republic	Pakistan	Uganda
Azerbaijan	Dominican Republic	Lao People's Democratic Republic	Papua New Guinea	Ukraine
Bangladesh	Ecuador	Latvia	Paraguay	Uruguay
Belarus	Egypt	Lesotho	Peru	Venezuela
Benin	El Salvador	Libya	Philippines	Vietnam
Bolivia	Estonia	Lithuania	Poland	Zambia
Bosnia and Herzegovina	Ethiopia	Macedonia, FYR	Portugal	
Botswana	Georgia	Madagascar	Romania	
Brazil	Ghana	Malawi	Russian Federation	
Bulgaria	Guatemala	Malaysia	Saudi Arabia	
Burundi	Guinea	Mexico	Sierra Leone	
Cambodia	Haiti	Moldova	Slovak Republic	
Cameroon	Honduras	Morocco	Slovenia	
Chile	Hungary	Myanmar	South Africa	
China	India	Namibia	Sri Lanka	
Colombia	Indonesia	Nepal	Sudan	
Congo, Republic of	Jamaica	Nicaragua	Tanzania	

# Methodology of the study

## 2. Sources of data – time series for 1999-2017 (annual frequency)

- The International Monetary Fund
  - Balance of Payments Statistics,
  - International Financial Statistics,
  - World Economic Outlook
- The World Bank
  - World Development Indicators
  - World Governance Indicators
- The Chicago Board of Exchange
- Chinn & Ito (2006, 2008) for capital account openness
- other supplementary sources: UNCTAD, UN Data, Passport, central banks

## 3. Procedure and variables

- ANOVA analysis, nonparametric tests, and post hoc tests
  - group countries according to the level of institutional indicator and compare distribution for capital flows among these groups (based on the lower and upper quartiles)
- Panel regression analysis (pooled OLS, FE)

# Institutional development - Worldwide Governance Indicators

Worldwide Governance Indicators (WGI) by the World Bank - six dimensions of governance based on over 30 underlying data sources reporting the perceptions of governance of a large number of survey respondents and expert assessments worldwide, gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms:

1. *Voice and Accountability* = extent to which a country's citizens are able to participate in selecting their government, freedom of expression, freedom of association, and a free media
2. *Political Stability and Absence of Violence/Terrorism* = likelihood of political instability and/or politically-motivated violence, including terrorism
3. *Government Effectiveness* = quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation
4. *Regulatory Quality* = ability of the government to formulate and implement sound regulations that permit and promote private sector development
5. *Rule of Law* = in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence
6. *Control of Corruption* = extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests

**Table:** Descriptive statistics for institutional variables in the period 1998-2017

89 developing	Mean	Median	Min.	Max.	Lower quartile	Upper quartile	Std. dev.
VA	41.4	39.4	4.5	88.1	24.3	59.2	22.3
PS	37.7	34.1	2.7	83.7	22.6	52.2	21.4
GE	42.2	41.1	3.5	84.5	25.6	59.3	21.9
RQ	44.6	43.3	4.3	90.9	29.1	60.1	21.9
RL	39.2	37.8	5.8	87.5	22.1	54.7	21.6
CC	38.4	33.3	5.1	89.3	18.5	54.2	22.2

14 CESEE	Mean	Median	Min.	Max.	Lower quartile	Upper quartile	Std. dev.
VA	41.4	68.1	47.0	84.3	61.0	78.4	12.8
PS	37.7	62.2	29.4	83.6	52.2	74.9	17.8
GE	42.2	64.5	28.3	80.6	48.7	75.6	16.7
RQ	44.6	71.4	43.3	90.0	65.1	80.5	13.1
RL	39.2	63.0	34.1	82.9	51.6	74.9	16.0
CC	60.4	64.4	29.5	82.2	49.4	69.7	14.7

Source: own compilation

# Explanatory variables in regression models

'Pull' drivers of capital flows that describe domestic macroeconomic conditions and risk assessments:

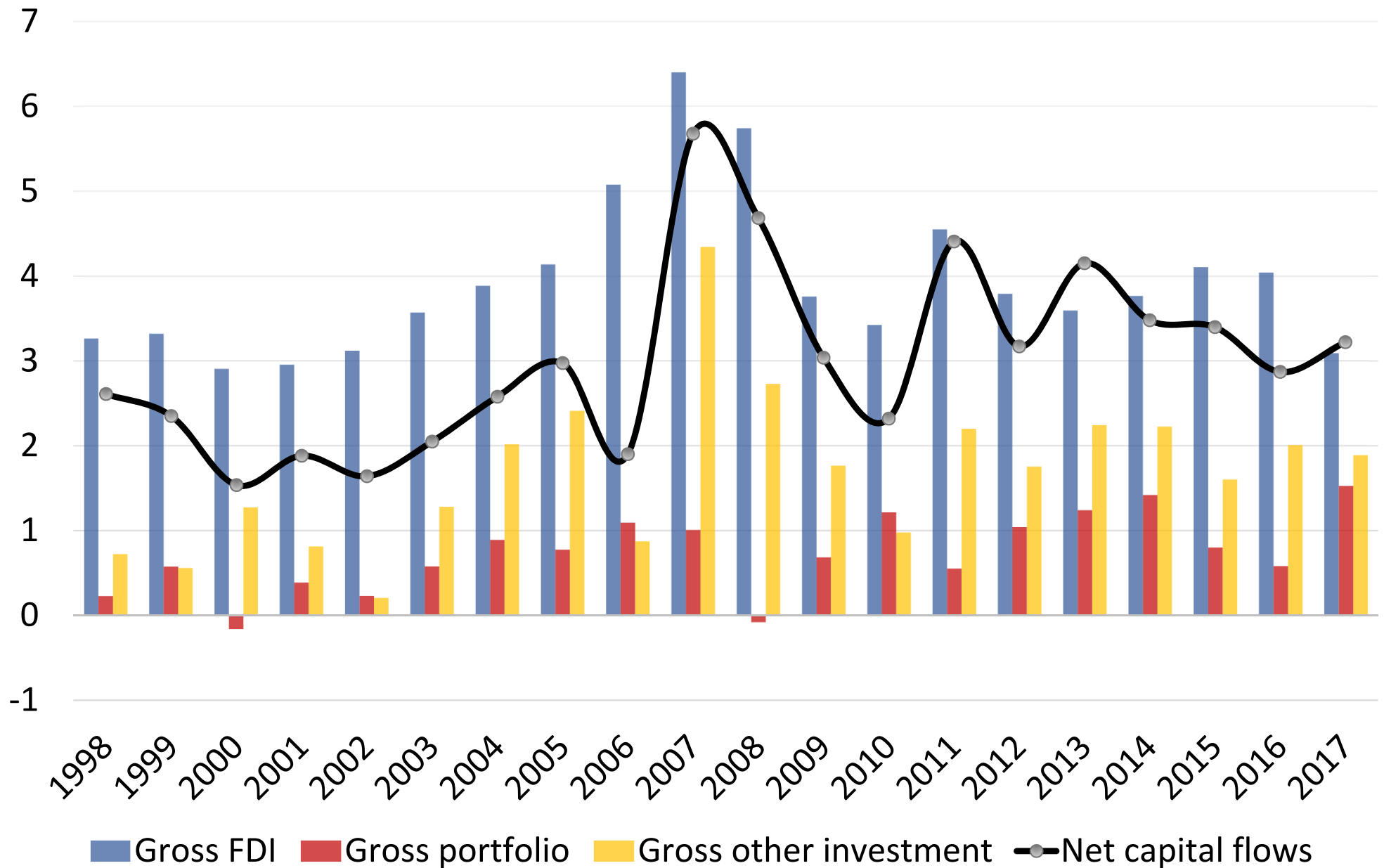
- real growth rate of GDP,
- GDP per capita (expressed as a percentage of the US per capita income),
- index of capital account as proposed by (Chinn & Ito, 2006, 2008),
- index of trade balance openness as measured by the ratio of exports and imports to GDP,
- current account balance (expressed as a percentage of GDP),
- real interest rates (nominal interest rate on deposits or similar instruments adjusted by CPI index),
- public budget balance (expressed as a percentage of GDP) as a simultaneous measure of country risk and public demand for foreign financing,
- gross public debt (expressed as a percentage of GDP) as a measure of country risk,
- ratio of international reserves to imports as a measure of country risk.

'Push' factors – external conditions:

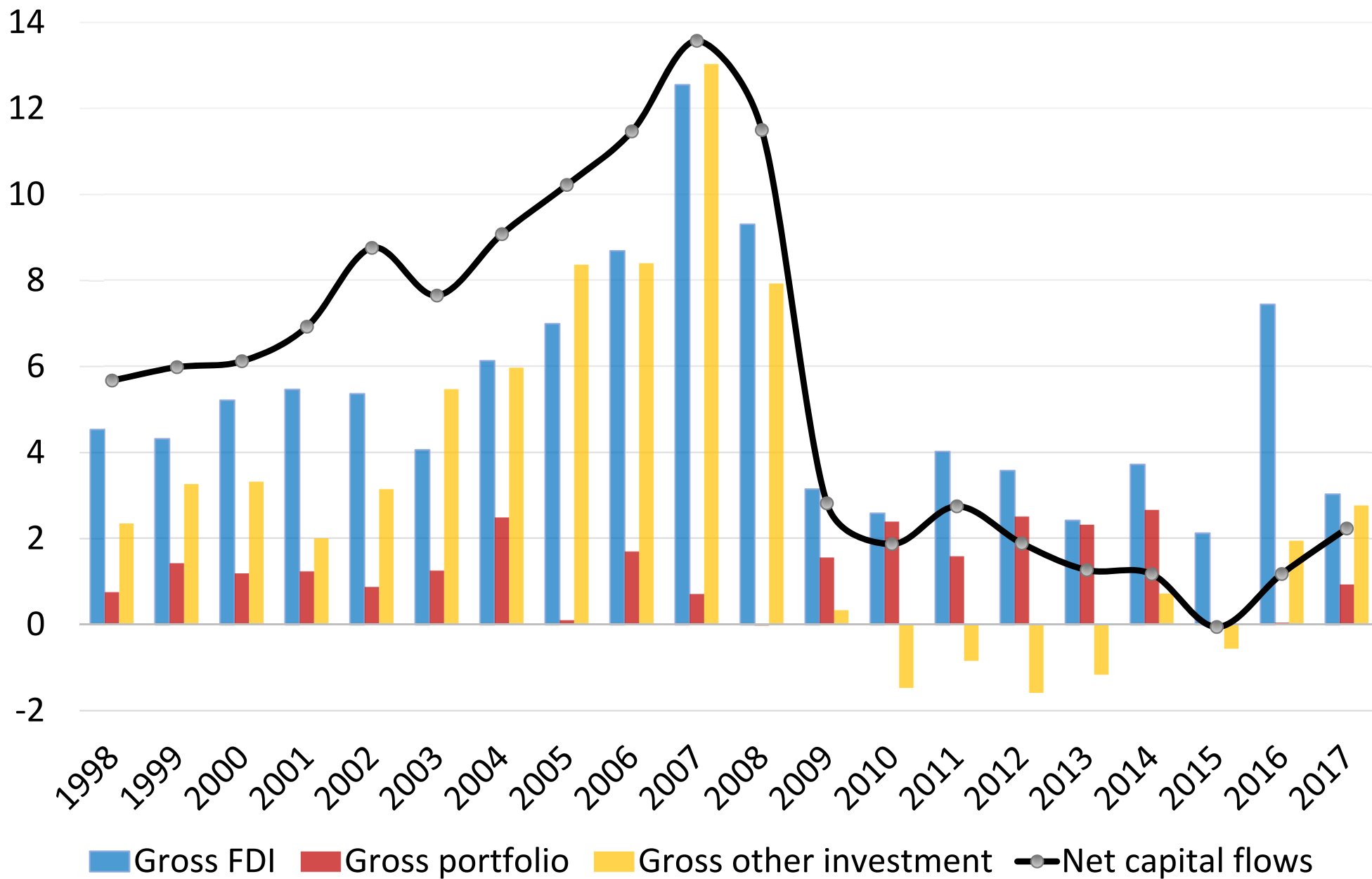
- global risk aversion proxied by the U.S. implied equity volatility (as measured by the VIX index provided by the Chicago Board of Trade),
- US real interest rate (nominal rate on deposits adjusted by CPI index),
- rate of GDP growth in G7 economies.

(Reinhart, Calvo & Leiderman, 1994), (Fernandez-Arias, 1996), (Taylor & Sarno, 1997), (Chuhan, Claessens, & Mamingi, 1998), (Ghosh & Ostry, 1993), (Baek, 2006), (De Vita & Kyaw, 2008), (Broner, Didier, Erce, & Schmukler, 2011), (Herrmann & Mihaljek, 2010), (Milesi-Ferretti & Tille, 2011), (Ananchotikul & Zhang, 2014), (Baek, 2006), (Feroli, Kashyap, Schoenholtz, & Shin, 2014), (Jeanneau & Micu, 2002), (Melado, 2001), (Bruno & Shin, 2013); (Ferucci, Herzberg, Soussa, & Taylor, 2004), (Hooper & Kim, 2007), (Alberola, Erce, & Serena, 2016)

# CAPITAL FLOWS TO DEVELOPING COUNTRIES IN 1998-2017 (% OF GDP)

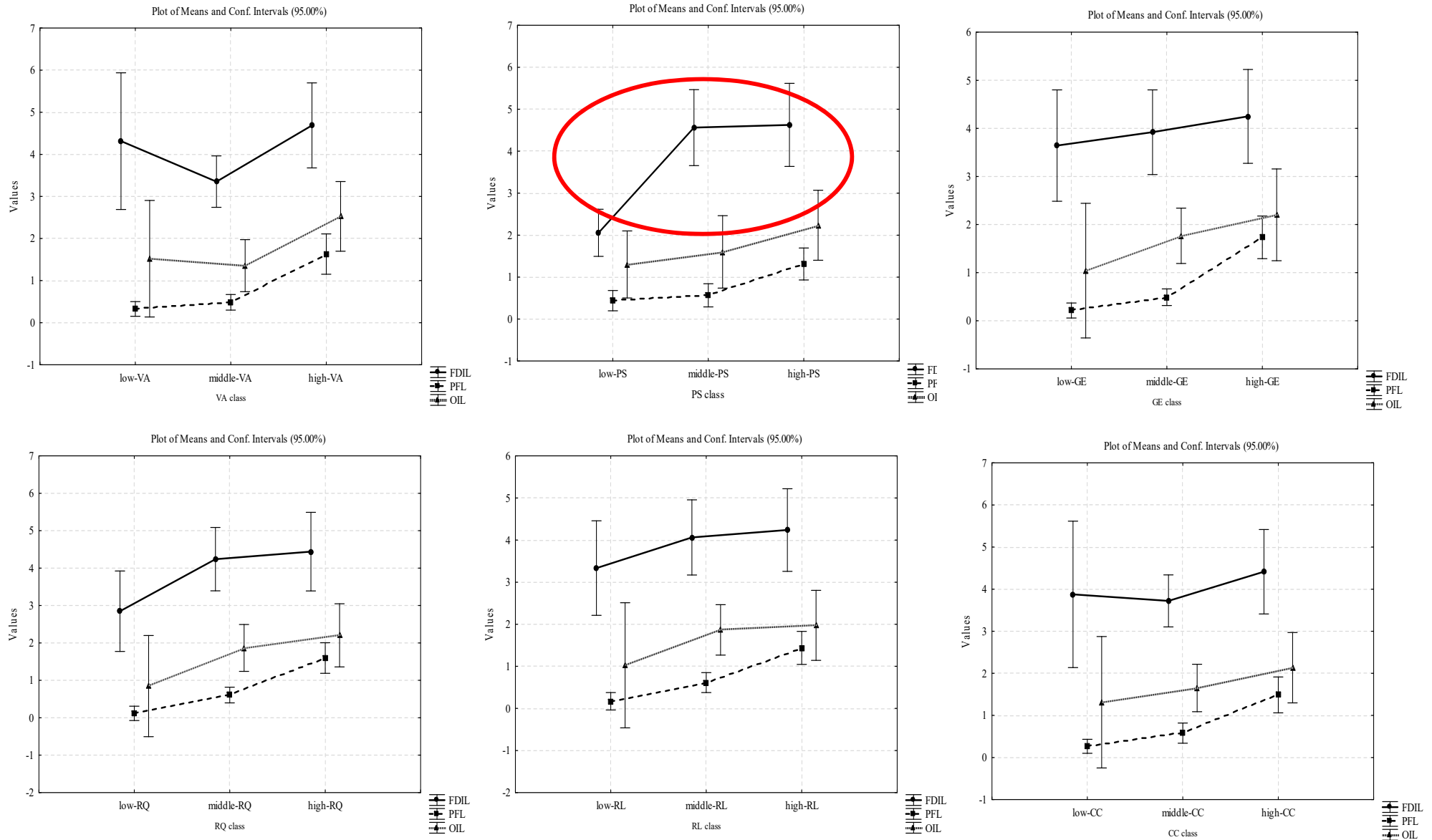


## CAPITAL FLOWS TO CESEE COUNTRIES IN 1998-2017 (% OF GDP)



Source: own compilation

# Results - ANOVA and nonparametric tests



Source: own compilation

- Gross portfolio inflows in the three subgroups differ among all institutional dimensions
- FDI differ for the political stability dimension

# Results - ANOVA and nonparametric tests (post hoc tests)

Period	ID group	N	Mean	Median	low	middle	High
VA							
PFL	low	23	0.3	0.1		0.7372	0.0001
	middle	44	0.5	0.4	0.7372		0.0001
	high	22	1.6	1.6	0.0001	0.0001	
PS							
FDIL	low	23	2.1	1.6		0.0024	0.0018
	middle	43	4.6	3.8	0.0024		0.9955
	high	23	4.6	3.8	0.0018	0.9955	
PFL	low	23	0.4	0.2		0.8573	0.0015
	middle	43	0.6	0.3	0.8573		0.0077
	high	23	1.3	1.3	0.0015	0.0077	
GE							
PFL	low	23	0.2	0.0		0.3384	0.0001
	middle	44	0.5	0.4	0.3384		0.0001
	high	22	1.7	1.7	0.0001	0.0001	
RQ							
PFL	low	23	0.1	0.0		0.0535	0.0001
	middle	44	0.6	0.5	0.0535		0.0001
	high	22	1.6	1.7	0.0001	0.0001	
RL							
PFL	low	22	0.2	0.1		0.1295	0.0001
	middle	43	0.6	0.4	0.1295		0.0009
	high	24	1.4	1.3	0.0001	0.0009	
CC							
PFL	low	22	0.3	0.1		0.3669	0.0001
	middle	45	0.6	0.4	0.3669		0.0006
	high	22	1.5	1.5	0.0001	0.0006	

Source: own compilation

## Results – baseline and extended regression models for the net financial flows

- Significant drivers: domestic GDP growth, GDP growth in G7 countries, the current account balance and the country risk indicators (the gross public debt ratio and the ratio of reserves to imports)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Variable	OLS	OLS	OLS	OLS	OLS	OLS	OLS	FE	FE	FE	FE	FE	FE	FE
Const	0.56	0.63	0.79	2.09	1.52	1.16	0.89	3.78**	3.76**	3.64*	3.45*	3.88**	3.57*	3.29*
	(1.34)	(1.35)	(1.63)	(1.5)	(1.49)	(1.53)	(1.4)	(1.82)	(1.84)	(1.83)	(1.82)	(1.87)	(1.83)	(1.88)
GRO	0.24***	0.24***	0.24***	0.24***	0.25***	0.24***	0.24***	0.17***	0.17***	0.17***	0.17***	0.17***	0.17***	0.17***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)
GDPpc	0.02	0.01	0.01	-0.03	-0.01	0	0.01	-0.12***	-0.12***	-0.12***	-0.11***	-0.12***	-0.12***	-0.12***
	(0.02)	(0.02)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)	(0.03)	(0.03)	(0.03)	(0.04)
KAO	0.16	0.15	0.15	0.11	0.04	0.14	0.15	-0.5**	-0.5**	-0.49**	-0.5**	-0.52**	-0.49**	-0.5**
	(0.17)	(0.18)	(0.18)	(0.17)	(0.18)	(0.18)	(0.18)	(0.21)	(0.22)	(0.21)	(0.21)	(0.21)	(0.21)	(0.22)
TBO	0.02*	0.02*	0.01	0.01	0.01	0.01*	0.01*	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
CA	-0.69***	-0.69***	-0.69***	-0.69***	-0.68***	-0.69***	-0.69***	-0.69***	-0.69***	-0.69***	-0.69***	-0.69***	-0.69***	-0.69***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
INT	-0.04	-0.04	-0.04	-0.06**	-0.06**	-0.04	-0.04	-0.05*	-0.05*	-0.05*	-0.05*	-0.05*	-0.05*	-0.05*
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
PBUD	0.03	0.03	0.03	0.05	0.04	0.03	0.03	0.2**	0.2**	0.2**	0.19**	0.19**	0.19**	0.2**
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
PDBT	-0.03***	-0.03***	-0.03***	-0.03***	-0.03***	-0.03***	-0.03***	-0.04***	-0.04***	-0.04***	-0.04***	-0.04***	-0.04***	-0.04***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
RESIMP	0.02***	0.02***	0.02***	0.02***	0.02***	0.02***	0.02***	0.02***	0.02***	0.02***	0.02***	0.02***	0.02***	0.02***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
VIX	-0.04*	-0.05*	-0.05*	-0.05**	-0.05**	-0.05*	-0.05*	-0.06**	-0.06**	-0.06**	-0.06**	-0.06**	-0.06**	-0.06**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
USINT	0.17*	0.16*	0.16*	0.13	0.14	0.15*	0.16*	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	(0.09)	(0.09)	(0.09)	(0.08)	(0.09)	(0.08)	(0.08)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
GROG7	-0.26**	-0.27***	-0.27**	-0.31***	-0.31***	-0.28***	-0.27***	-0.33***	-0.33***	-0.33***	-0.33***	-0.34***	-0.33***	-0.33***
	(0.1)	(0.1)	(0.11)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
VA	-	0.16	-	-	-	-	-	-	-0.19	-	-	-	-	-
	-	(0.37)	-	-	-	-	-	-	(0.78)	-	-	-	-	-
PS	-	-	0.16	-	-	-	-	-	-	-0.35	-	-	-	-
	-	-	(0.41)	-	-	-	-	-	-	(0.37)	-	-	-	-
GE	-	-	-	1.25**	-	-	-	-	-	-	-0.61	-	-	-
	-	-	-	(0.51)	-	-	-	-	-	-	(0.9)	-	-	-
RQ	-	-	-	-	0.98*	-	-	-	-	-	-	0.33	-	-
	-	-	-	-	(0.53)	-	-	-	-	-	-	(0.81)	-	-
RL	-	-	-	-	-	0.43	-	-	-	-	-	-	-0.4	-
	-	-	-	-	-	(0.48)	-	-	-	-	-	-	(0.87)	-
CC	-	-	-	-	-	-	0.26	-	-	-	-	-	-	-1.13*
	-	-	-	-	-	-	(0.44)	-	-	-	-	-	-	(0.68)
Observations	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525
Countries	86	86	86	86	86	86	86	86	86	86	86	86	86	86
R-squared	0.55	0.55	0.55	0.56	0.56	0.55	0.55	0.67	0.67	0.67	0.67	0.67	0.67	0.67
S.E. of regression	4.37	4.37	4.37	4.34	4.35	4.37	4.37	3.87	3.87	3.87	3.87	3.87	3.87	3.87

## Results – baseline and extended regression models for FDI and other investment

- Major drivers seem to be the same for FDI and other investment but the size of coefficients (in absolute terms) is larger for other investment flows than for FDI
  - GDP growth in the domestic economy and in advanced countries,
  - current account balance
- Banking flows react negatively to increases in the public debt ratio (a negative coefficient of 0.03-0.04)
- FDI inflows are induced positively by a rise in:
  - the trade openness (an increase in the share of exports and imports in GDP by 10 p.p. is associated with an increase in the ratio of gross direct investment inflows by 0.3-0.4 p.p.)
  - the public budget ratio (a positive coefficient of 0.13-0.15 reflecting an enhanced country's credibility).
  - the reserves ratio (a coefficient of 0.01-0.02).
- Institutional variables are not statistically significant for FDI and banking flows
  - no support from the regression for positive relationship that the ANOVA partially indicated for FDI.

# Results – baseline and extended regression models for the portfolio flows

- Significant drivers: global market sentiment (VIX index) and public budget balance (negative coefficients for both variables 0.05-0.06), GDP per capita (stages of development hypothesis)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Variable	OLS	OLS	OLS	OLS	OLS	OLS	OLS	FE	FE	FE	FE	FE	FE	FE
Const	1.53*** (0.36)	1.7*** (0.33)	1.8*** (0.39)	2.43*** (0.37)	2.25*** (0.37)	2.28*** (0.42)	2.1*** (0.4)	2.08*** (0.58)	2.13*** (0.59)	2.21*** (0.59)	2.61*** (0.62)	2.27*** (0.62)	2.52*** (0.64)	2.27*** (0.62)
GRO	0.01 (0.01)	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)	0.02 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.01 (0.02)
GDPpc	0.06*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.04*** (0.01)	0.04*** (0.01)	0.05** (0.02)	0.05** (0.02)	0.04** (0.02)	0.04* (0.02)	0.04* (0.02)	0.04* (0.02)	0.04** (0.02)
KAO	0 (0.05)	-0.03 (0.05)	-0.01 (0.05)	-0.02 (0.04)	-0.08* (0.05)	-0.03 (0.05)	-0.02 (0.05)	-0.08 (0.09)	-0.09 (0.09)	-0.09 (0.09)	-0.09 (0.09)	-0.12 (0.09)	-0.11 (0.1)	-0.08 (0.09)
TBO	0 (0)	0 (0)	0 (0)	0* (0)	0* (0)	0 (0)	0 (0)	-0.01 (0)	-0.01 (0)	-0.01 (0)	-0.01* (0)	-0.01 (0)	-0.01 (0)	-0.01 (0)
CA	-0.02* (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.02* (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.02** (0.01)	-0.02** (0.01)	-0.02** (0.01)	-0.02** (0.01)	-0.02* (0.01)	-0.02** (0.01)	-0.02** (0.01)
INT	0 (0.01)	0 (0.01)	0 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0 (0.01)	0 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
PBUD	-0.06*** (0.02)	-0.06*** (0.02)	-0.06*** (0.02)	-0.05*** (0.02)	-0.05*** (0.02)	-0.05*** (0.02)	-0.06*** (0.02)	-0.05** (0.02)	-0.05** (0.02)	-0.05** (0.02)	-0.05** (0.02)	-0.05** (0.02)	-0.05** (0.02)	-0.05** (0.02)
PDBT	0* (0)	0 (0)	0* (0)	0* (0)	0 (0)	0* (0)	0* (0)	-0.01 (0)	-0.01 (0)	-0.01 (0)	-0.01 (0)	-0.01 (0)	-0.01 (0)	-0.01 (0)
RESIMP	0 (0)	0 (0)	0 (0)	0** (0)	0* (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
VIX	-0.06*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.07*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)	-0.06*** (0.01)
USINT	0.02 (0.04)	0 (0.04)	0.01 (0.04)	-0.01 (0.04)	0 (0.04)	0 (0.03)	0 (0.03)	0 (0.04)	0 (0.04)	-0.01 (0.04)	0 (0.04)	0 (0.04)	-0.01 (0.04)	0 (0.04)
GROG7	-0.02 (0.03)	-0.03 (0.03)	-0.02 (0.03)	-0.04 (0.03)	-0.05 (0.03)	-0.04 (0.03)	-0.03 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.03 (0.03)	-0.02 (0.03)
VA	- (0.09)	0.38*** (0.09)	- (0.1)	- (0.1)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	0.51* (0.27)	- (0.27)	- (0.16)	- (0.16)	- (0.16)	- (0.16)
PS	- (0.1)	- (0.1)	0.19* (0.1)	- (0.1)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	0.31** (0.16)	- (0.16)	- (0.16)	- (0.16)	- (0.16)
GE	- (0.12)	- (0.12)	- (0.12)	0.74*** (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	0.98*** (0.34)	- (0.34)	- (0.34)	- (0.34)
RQ	- (0.12)	- (0.12)	- (0.12)	- (0.12)	0.73*** (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	0.66** (0.3)	- (0.3)	- (0.3)
RL	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	0.54*** (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	0.84** (0.38)	- (0.38)
CC	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	0.44*** (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	- (0.12)	0.42 (0.31)
Observations	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525	1,525
Countries	86	86	86	86	86	86	86	86	86	86	86	86	86	86
R-squared	0.15	0.16	0.15	0.17	0.17	0.16	0.16	0.26	0.26	0.26	0.26	0.26	0.26	0.26
S.E. of regression	1.76	1.74	1.75	1.73	1.73	1.74	1.75	1.69	1.69	1.69	1.68	1.68	1.68	1.69

# Results – regression models for the net financial flows to CESEE

Significant drivers: the current account dynamics and the international liquidity ratio + EMU membership

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Variable	OLS	OLS	OLS	OLS	OLS	OLS	OLS	FE	FE	FE	FE	FE	FE	FE
Const	-9.23** (3.69)	-8.97** (3.64)	-7.69** (3.5)	-8.31** (3.6)	-9.21** (3.63)	-9** (3.52)	-8.98** (3.64)	-3.73 (5.22)	-3.41 (5.09)	-4.01 (5.16)	-3.22 (5.08)	-3.11 (4.97)	-3.9 (5.28)	-3.98 (5.18)
GRO	0.14 (0.08)	0.13 (0.08)	0.1 (0.07)	0.12 (0.07)	0.14 (0.08)	0.14 (0.08)	0.14 (0.08)	0.14* (0.07)	0.14* (0.07)	0.13* (0.06)	0.14* (0.07)	0.15* (0.07)	0.12 (0.07)	0.14** (0.07)
GDPpc	0.08** (0.03)	0.06* (0.03)	0.04 (0.03)	0.04* (0.02)	0.08*** (0.02)	0.06* (0.03)	0.06** (0.03)	-0.08 (0.07)	-0.08 (0.07)	-0.08 (0.07)	-0.06 (0.07)	-0.05 (0.07)	-0.04 (0.06)	-0.06 (0.06)
KAO	-0.66** (0.25)	-0.69** (0.25)	-0.72** (0.26)	-0.66** (0.25)	-0.67** (0.24)	-0.69** (0.24)	-0.67** (0.25)	-0.71** (0.25)	-0.73** (0.25)	-0.7** (0.26)	-0.89*** (0.26)	-0.77** (0.26)	-0.89*** (0.23)	-0.85*** (0.26)
TBO	0.03** (0.01)	0.03** (0.01)	0.03* (0.01)	0.02* (0.01)	0.03** (0.01)	0.03** (0.01)	0.03** (0.01)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)	0.03 (0.03)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)
CA	-1.09*** (0.12)	-1.1*** (0.12)	-1.1*** (0.12)	-1.12*** (0.12)	-1.09*** (0.12)	-1.1*** (0.12)	-1.1*** (0.12)	-1.23*** (0.12)	-1.24*** (0.12)	-1.23*** (0.12)	-1.24*** (0.12)	-1.25*** (0.12)	-1.25*** (0.12)	-1.25*** (0.12)
INT	-0.12** (0.06)	-0.11 (0.06)	-0.09 (0.06)	-0.09 (0.07)	-0.12 (0.07)	-0.11 (0.07)	-0.12* (0.06)	-0.06 (0.07)	-0.06 (0.07)	-0.06 (0.07)	-0.06 (0.07)	-0.05 (0.06)	-0.05 (0.06)	-0.05 (0.07)
PBUD	-0.01 (0.11)	0 (0.11)	0.03 (0.1)	0.02 (0.11)	-0.01 (0.11)	-0.01 (0.11)	-0.02 (0.11)	0.01 (0.1)	0.01 (0.1)	0 (0.1)	-0.01 (0.09)	-0.02 (0.09)	0.01 (0.1)	0 (0.09)
PDBT	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)	-0.02 (0.02)	-0.01 (0.02)	-0.02 (0.02)
RESIMP	0.15*** (0.04)	0.15*** (0.04)	0.15*** (0.04)	0.15*** (0.04)	0.15*** (0.04)	0.16*** (0.04)	0.16*** (0.04)	0.15*** (0.04)	0.15*** (0.04)	0.14*** (0.04)	0.16*** (0.04)	0.16*** (0.04)	0.16*** (0.04)	0.16*** (0.04)
VIX	0 (0.03)	-0.01 (0.03)	-0.02 (0.03)	0 (0.03)	0 (0.03)	- (0.03)	0 (0.03)	-0.07* (0.04)	-0.08* (0.04)	-0.07* (0.04)	-0.1** (0.04)	-0.09** (0.04)	-0.09* (0.04)	-0.09* (0.04)
USINT	0.44*** (0.12)	0.39*** (0.12)	0.34*** (0.09)	0.37*** (0.1)	0.44*** (0.11)	0.41** (0.13)	0.41*** (0.13)	0.06 (0.1)	0.06 (0.1)	0.08 (0.11)	-0.01 (0.09)	0 (0.11)	0.03 (0.1)	0.04 (0.1)
GROG7	0.13 (0.17)	0.1 (0.16)	0.09 (0.16)	0.1 (0.16)	0.13 (0.17)	0.1 (0.16)	0.1 (0.16)	-0.24 (0.16)	-0.24 (0.16)	-0.21 (0.16)	-0.3* (0.17)	-0.29 (0.17)	-0.24 (0.16)	-0.24 (0.15)
EMU	3.12** (1.44)	3.16* (1.47)	3.29** (1.49)	3.25** (1.44)	3.14* (1.46)	3.26* (1.51)	3.19** (1.45)	4.62*** (1.44)	4.72*** (1.51)	4.65*** (1.48)	5.12*** (1.52)	5*** (1.4)	5.03*** (1.39)	5.12*** (1.54)
VA	- (1.34)	0.88 (1.34)	- (1.34)	- (1.34)	- (1.34)	- (1.34)	- (1.34)	- (1.2)	-0.62 (1.2)	- (1.2)	- (1.2)	- (1.2)	- (1.2)	- (1.2)
PS	- (1)	- (1)	1.29 (1)	- (1)	- (1)	- (1)	- (1)	- (1)	- (1)	0.76 (0.84)	- (0.84)	- (0.84)	- (0.84)	- (0.84)
GE	- (0.68)	- (0.68)	- (0.68)	1.32* (0.68)	- (0.68)	- (0.68)	- (0.68)	- (0.68)	- (0.68)	- (0.68)	-2.45* (1.28)	- (1.28)	- (1.28)	- (1.28)
RQ	- (1.05)	- (1.05)	- (1.05)	- (1.05)	0.09 (1.05)	- (1.05)	- (1.05)	- (1.05)	- (1.05)	- (1.05)	- (1.05)	-2.42 (1.37)	- (1.37)	- (1.37)
RL	- (0.99)	- (0.99)	- (0.99)	- (0.99)	- (0.99)	0.58 (0.99)	- (0.99)	- (0.99)	- (0.99)	- (0.99)	- (0.99)	- (0.99)	-2.55* (1.31)	- (1.31)
CC	- (0.83)	- (0.83)	- (0.83)	- (0.83)	- (0.83)	- (0.83)	0.61 (0.83)	- (0.83)	- (0.83)	- (0.83)	- (0.83)	- (0.83)	- (0.83)	-2.32 (1.35)
Observations	273	273	273	273	273	273	273	273	273	273	273	273	273	273
Countries	14	14	14	14	14	14	14	14	14	14	14	14	14	14
R-squared	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.82	0.82	0.82	0.82	0.82	0.82	0.82
S.E. of regression	3.26	3.26	3.24	3.24	3.26	3.26	3.26	2.99	3.00	2.99	2.98	2.98	2.98	2.98



Thank you for your attention

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