FDI FLOWS TO ADVANCED ECONOMIES: TO WHAT EXTENT DO THE STRUCTURAL FACTORS MATTER?

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CompNet Workshop, Banco de España, Madrid

26 March 2015

Overview

1	Why does FDI matter?
2	Stylised facts on recent FDI developments
3	What drives FDI?

Overview

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- **Foreign direct investment** (FDI) aims at a **long-term relationship**, reflects a **lasting interest and (partial) control.**

  -more stable funding, longer-term commitment and **greater physical contact** compared to portfolio investment

- **FDI can enhance growth in the host economy through**
  - job creation, capital accumulation (direct effects)
  - productivity spillovers (indirect effects)

- **Multinational Companies are generally characterized by**
  - Advanced technologies and better organizational and managerial know-how;
  - Intensive investment in private R&D, training and HR development;
  - More productive and profitable than local companies.

Transfer of a "**technological package**" (Findlay, 1978)

....but the empirical evidence is rather mixed

- Host country's **absorptive capabilities matter:** financial development, openness to trade, human capital development, innovation capacity, basic infrastructure development, income per capita *(Balasubramanyam et al. 1996, Borensztein, De Gregorio et al. 1998, Alfaro et al. 2004).*

- Some technical shortcomings:

    - Data limitations;
    - Heterogeneity of countries;
    - Heterogeneity of investment types and firms;
    - Statistical and methodological issues (e.g. endogeneity, uncertainty, measurement error, reverse causality).

Overview

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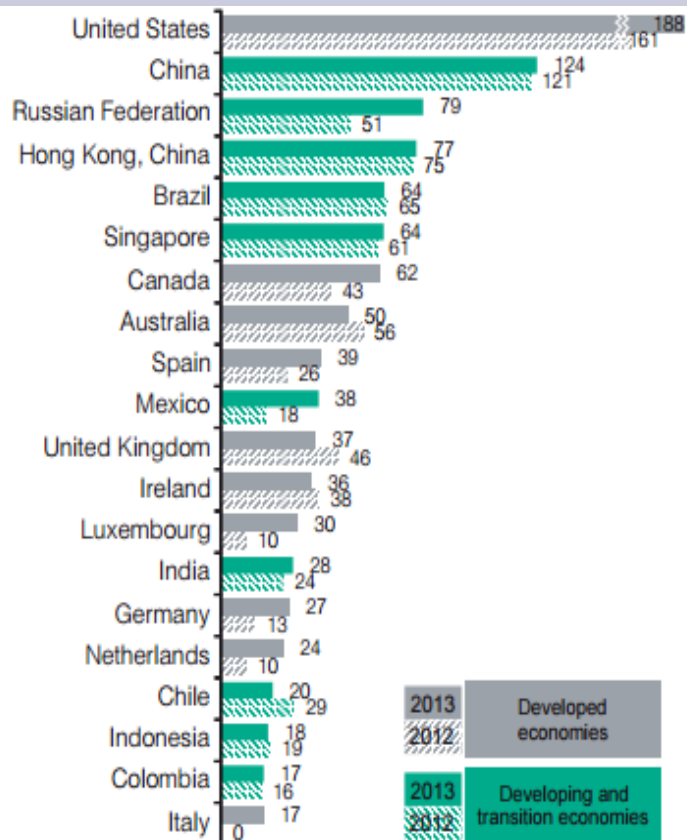## FDI inflows, global and by group of economies 1995-2016 (billions USD)
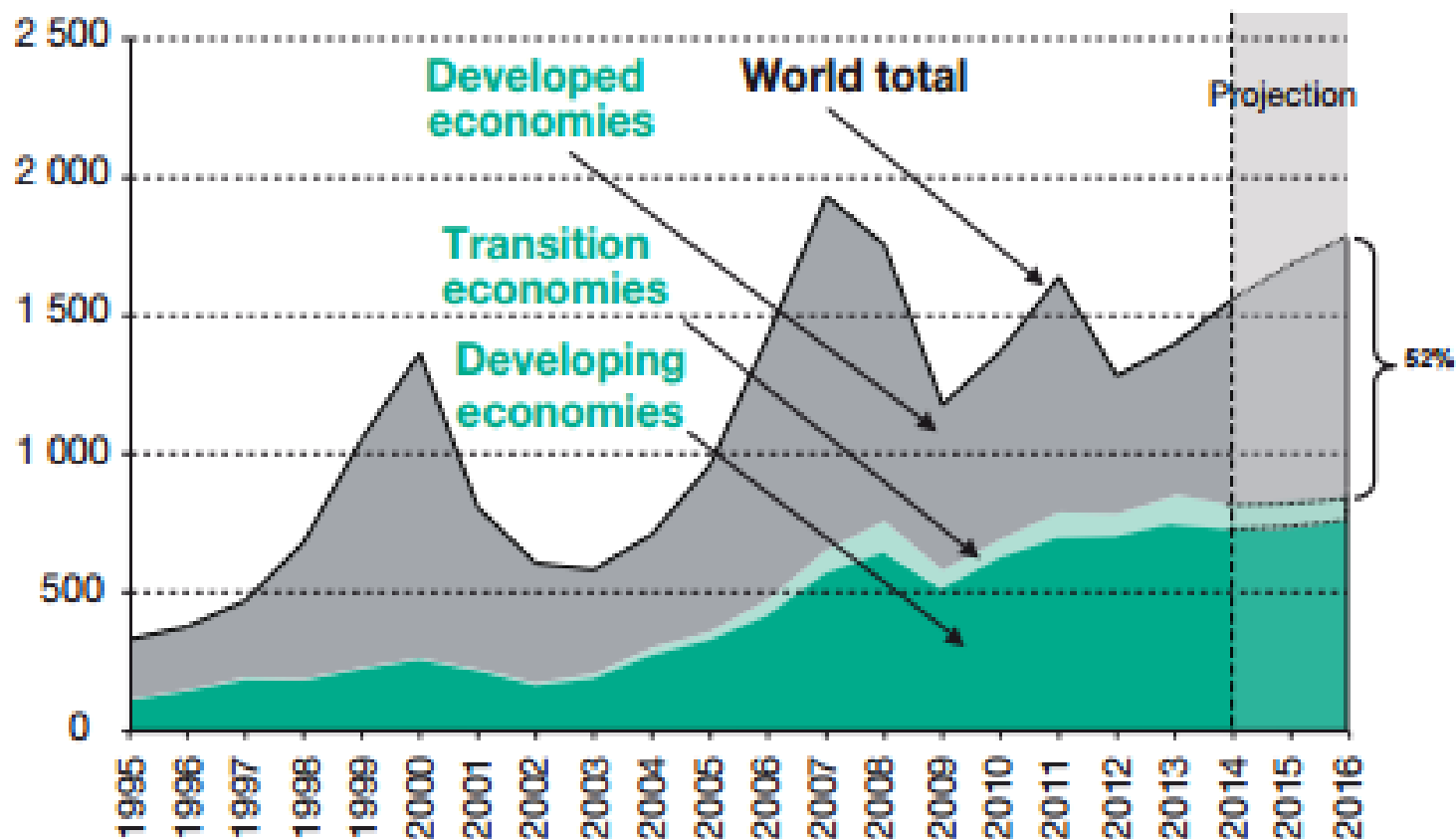
Source: UNCTAD, World Investment Report 2014
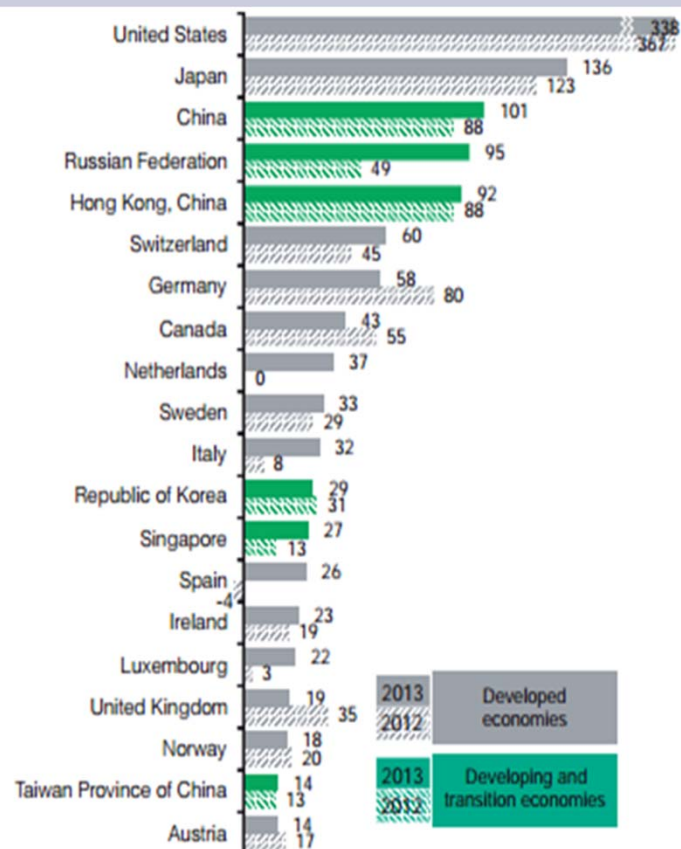
Note: 2014-2016 are projections.

A large number of developing countries became global players

FDI flows: top 20 host and home economies

| FDI: top 20 host economies, 2012 and 2013 (billions USD)	FDI: top 20 home economies, 2012 and 2013 (billions USD)

FDI: top 20 host economies, 2012 and 2013 (billions USD)

Country	2013	2012
United States	188	161
China	124	121
Russian Federation	79	51
Hong Kong, China	77	75
Brazil	64	65
Singapore	64	61
Canada	62	43
Australia	50	56
Spain	39	26
Mexico	38	18
United Kingdom	37	46
Ireland	36	38
Luxembourg	30	10
India	28	24
Germany	27	13
Netherlands	24	10
Chile	20	29
Indonesia	18	19
Colombia	17	16
Italy	17	0

Legend: 2013 / 2012 Developed economies; 2013 / 2012 Developing and transition economies

FDI: top 20 home economies, 2012 and 2013 (billions USD)

Country	2013	2012
United States	338	367
Japan	136	123
China	101	88
Russian Federation	95	49
Hong Kong, China	92	88
Switzerland	60	45
Germany	58	80
Canada	43	55
Netherlands	37	0
Sweden	33	29
Italy	32	8
Republic of Korea	29	31
Singapore	27	13
Spain	26	-4
Ireland	23	19
Luxembourg	22	3
United Kingdom	19	35
Norway	18	20
Taiwan Province of China	14	13
Austria	14	17

Legend: 2013 / 2012 Developed economies; 2013 / 2012 Developing and transition economies

Source: UNCTAD, World Investment Report 2014

Foreign direct investment inflows and outflows in the largest euro area countries, 2001-2014
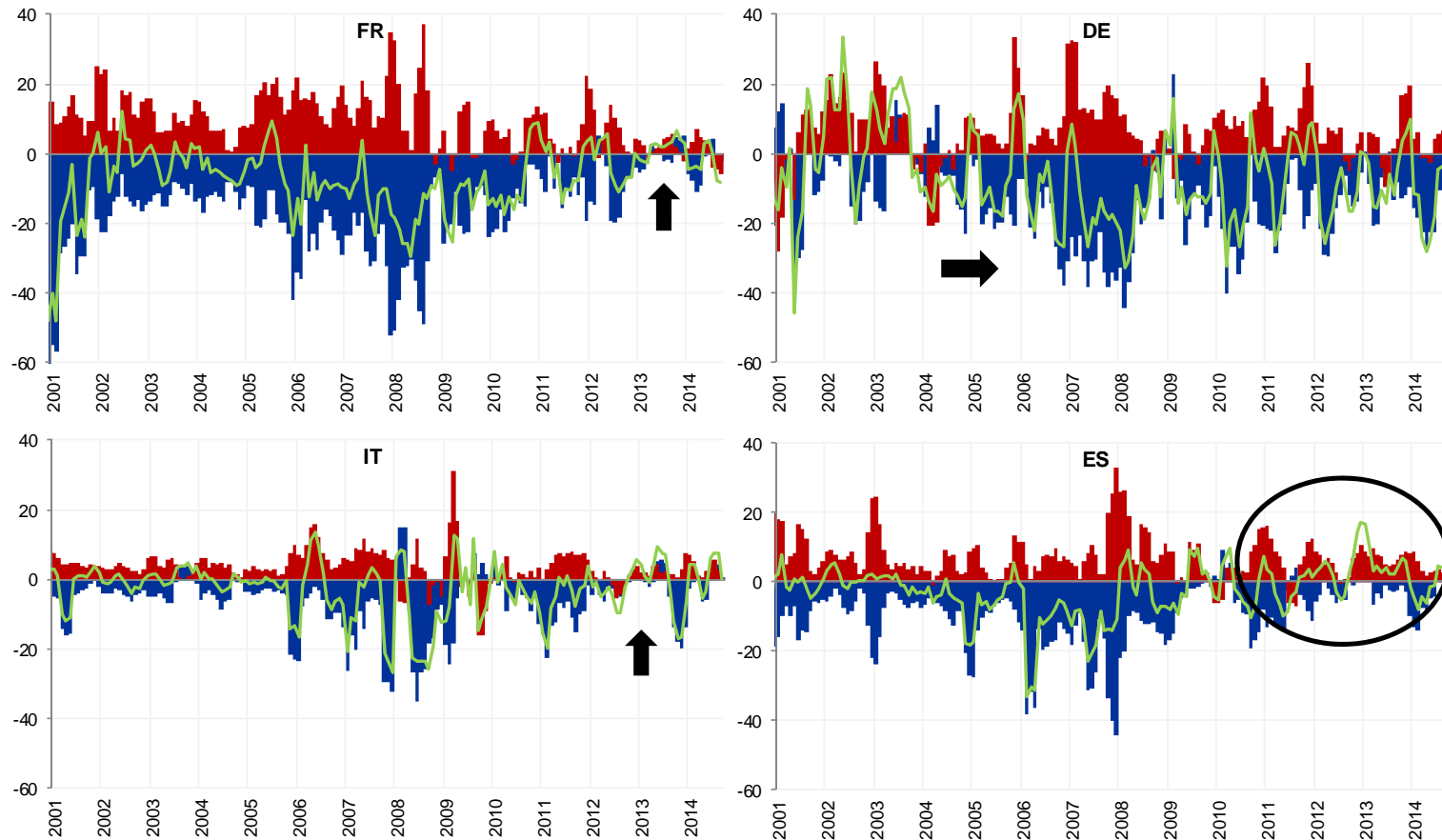
Source: ECB Balance of Payments Statistics

Note: Three-month moving sums of monthly flows, not seasonally adjusted

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Foreign investors have different motivations

- **Vertical FDI:** Firms locate different stages of production in different countries to take advantage of differences in international factor-prices.

- **Horizontal FDI:** Firms produce the same goods and services in multiple countries with the purpose of serving local markets.

- Key factors to attract foreign investors may not solely relate to economic determinants but also to structural factors (e.g. institutions, taxation, infrastructures or human capital development, etc.).

Survey evidence shows the importance of structural factors

| Key FDI Location factors	2014	2012	2011
Stability and transparency of political, legal and regulatory environment	1	2	3
The country or region's domestic market	2	1	8
Potential productivity increase for their company	3	5	4
Labour costs	4	3	7
Transport and logistics infrastructure	5	4	1
Local labour skill level	6	6	6
Stability of social climate	7	7	5
Corporate taxation	8	8	9
Telecommunications infrastructure	9	10	2
Flexibility of labour legislation	10	9	10

Source: Ernest & Young 2014 European Attractiveness Survey

Note: the number of total respondents is 808.

GCI structural sub-indicators 2014-2015

Scale: 1-7 (best)
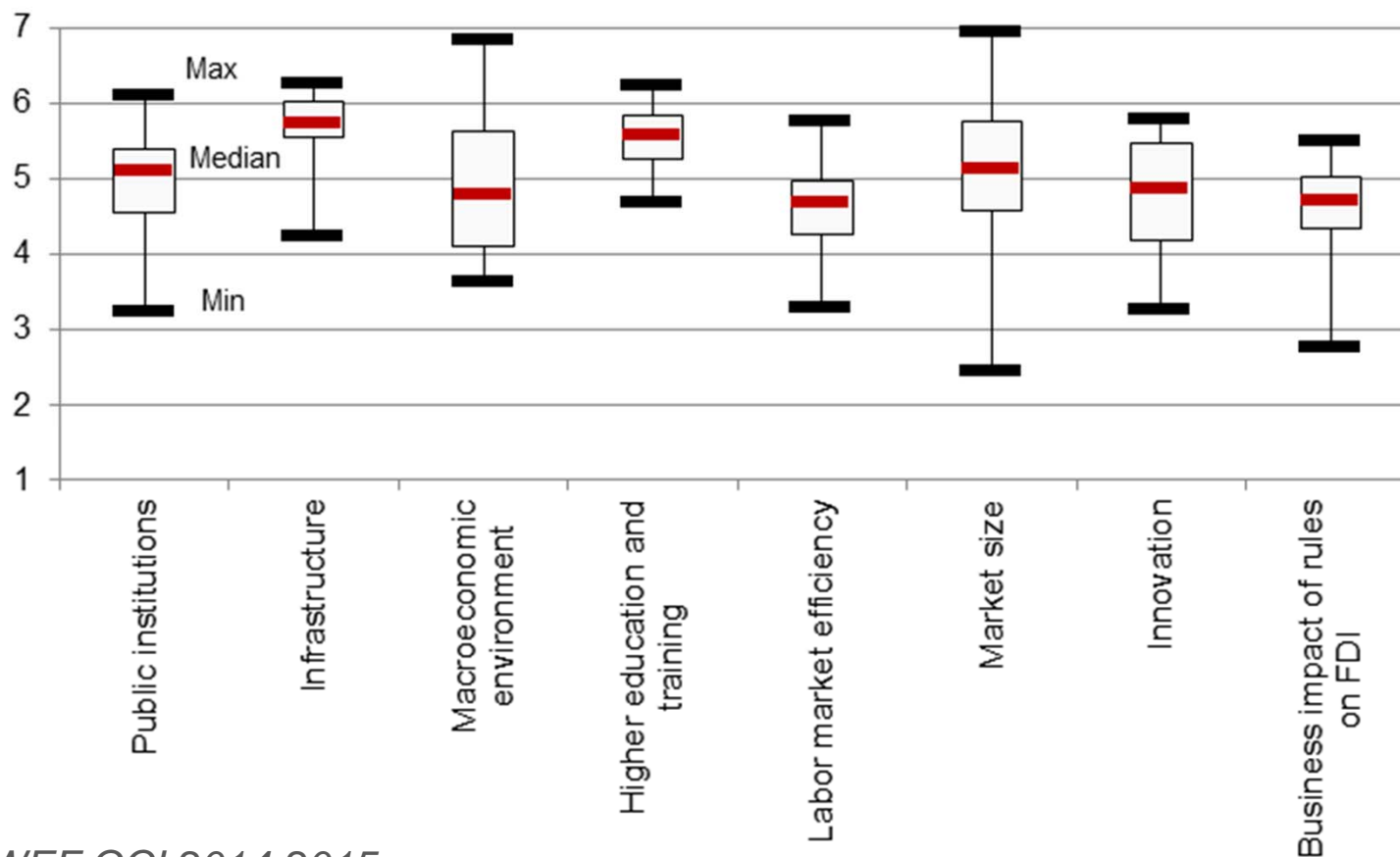
Source: WEF GCI 2014-2015

Note: the sample covers 19 OECD countries.

GCI Labour Market Efficiency Sub-indicators
Scale: 1-7 (best)

Source: WEF GCI 2014-2015

Note: the sample covers 19 OECD countries.

Stock adjustment (Chow 1967): FDI flow serves to adjust the stock towards its desired/equilibrium level

$$lnY_{it} - \ln Y_{it-1} = \alpha(lnY^*_{it} - lnY_{it-1}), \qquad 0 < \alpha < 1$$

can be expressed as:

$$lnY_{it} = (1 - \alpha)lnY_{it-1} + \alpha lnY^*_{it}$$

Model Specification

$$lnY_{ij,t} = \alpha_0 + (1 - \alpha)lnY_{ij,t-1} + \beta_1 Economic_{i,t-1} + \beta_2 Structural_{i,t-1} + \varphi_i + \varepsilon_i$$

Empirical analysis on FDI determinants in advanced economies

Economic variables: GDP per capita, size of the population, relative price of tradables and total factor productivity.

Structural variables: R&D expenditure, tertiary educational attainment, Employment Protection Legislation (EPL) and tax on profits as a percentage of GDP.

Data

Annual,1991-2012, the OECD and World Bank

19 OECD countries

3 sectors: Primary, Manufacturing, Financial Services

FDI determinants

Dependent variable: FDI Stock	Total Economy		Primary		Manufacturing		Financial Services	
	OLS	GMM	OLS	GMM	OLS	GMM	OLS	GMM
GDP capita	-0.06	-0.07	-1.41	-1.09	**0.77***	**0.75***	0.73	1.02
	(-0.27)	(-0.28)	(-0.84)	(-0.73)	(-1.98)	(-1.94)	(-0.98)	(-1.27)
Population	**1.52****	**1.40****	3.84	2.32	1.33	**1.57****	0.5	0.49
	(-2.64)	(-1.98)	(-1.75)	(-1.26)	(-1.6)	(-1.97)	(-0.54)	(-0.54)
Relative prices	**-0.01*****	**-0.01*****	0	0	**-0.003****	0	**-0.01****	**-0.01****
	(-5.36)	(-4.94)	(-0.65)	(-0.98)	(-2.64)	(-1.28)	(-2.68)	(-2.41)
Productivity	**0.69*****	**0.73*****	**2.66***	**2.27****	-0.11	0.06	**1.23***	1.15
	(-3.29)	(-3.21)	(-2.02)	(-1.99)	(-0.24)	(-0.11)	(-2)	(-1.64)
Tax	0	0	0	0	0	0	**0.01***	**0.01***
	(-0.08)	(-0.1)	(-0.38)	(-0.02)	(-0.25)	(-0.49)	(-2.06)	(-1.66)
Tertiary Edu	0.16	0.16	0.4	0.26	**0.32****	**0.34*****	**0.36*****	**0.29****
	(-1.33)	(-1.22)	(-1.62)	(-1.11)	(-2.68)	(-2.86)	(-3.03)	(-2.17)
EPL	-0.01	-0.04	0.54	**0.72***	-0.05	-0.02	**-0.29***	**-0.28****
	(-0.11)	(-0.39)	(-1.38)	(-1.86)	(-0.44)	(-0.11)	(-1.80)	(-2.15)
RD	**0.13****	**0.16*****	0.09	0.19	-0.13	-0.06	-0.08	-0.1
	(-2.43)	(-2.62)	(-0.37)	(-0.96)	(-1.29)	(-0.66)	(-0.56)	(-0.70)
Lagged FDI Stock	**0.77*****	**0.75*****	**0.48*****	**0.54*****	**0.77*****	**0.69*****	**0.71*****	**0.70*****
	(-17.09)	(-14.88)	(-3.73)	(-4.91)	(-18.5)	(-13.9)	(-18.4)	(-20.6)
fixed effect	Yes	No	Yes	No	Yes	No	Yes	No
num. of observations	345	322	213	194	261	238	263	241
Sargan p-value		0.22		0.29		0.23		0.02

Note: *** , ** ,* denote significance at 1%, 5% and 10% respectively; standard errors are in parenthesis.

Financial services FDI determinants

Dependent variable: FDI Stock	Financial	
	OLS	GMM
GDP capita	0.61	0.71
	(0.93)	(1.00)
Population	0.29	0.27
	(0.33)	(0.25)
Relative prices	**-0.01****	**-0.01****
	(-2.44)	(-2.59)
Productivity	**1.27****	**1.40****
	(2.49)	(2.12)
Tax	**0.01***	**0.01***
	(1.84)	(1.69)
Tertiary Edu	**0.41*****	**0.49****
	(3.20)	(2.16)
EPL	-0.31	**-0.47***
	(-1.48)	(-1.78)
RD	0.01	0.00
	(0.05)	(-0.01)
VIX	-0.01	**-0.01***
	(-1.28)	(-1.78)
Lagged Financial	**0.86*****	**0.82*****
	(18.50)	(12.81)
Lagged Financial (2)	**-0.14***	**-0.14****
	(-2.05)	(-2.50)
fixed effect	Yes	No
num. of observations	245	223
Sargan p-value		0.24

Note: *** , ** ,*   denote significance at 1%, 5% and 10% respectively; standard errors are in parenthesis.

Conclusions

- FDI is **likely to support growth** through job creation, capital accumulation and productivity spillovers;

- Strong **detrimental effect of the Financial Crisis** on the largest euro area countries and no recovery yet to the pre-crisis levels;

- **Structural factors matter** to attract FDI;

- Significant scope for improving attractiveness to FDI through **targeted policies** such as product and labour market reforms, tax competition, innovation and R&D.

Thank you for your attention !