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# Multinationals and Regional Development: Evidence from Europe

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University of Pavia & Aalborg University

XVth International Scientific Conference - Kopřivnice, Czech Republic

November 9<sup>th</sup> 2017



# Multinationals hit the headlines when they arrive in new countries/regions

EL PAÍS CATALUÑA

ANDALUCÍA CATALUÑA C. VALENCIANA GALICIA MADRID PAÍS VASCO MÁS COMUNIDADES TITULARES »

## Volkswagen instalará en Barcelona un gran centro de datos

La iniciativa permitirá a Seat avanzar hacia la conectividad y el coche eléctrico

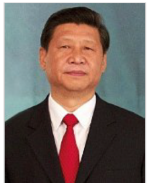
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♡ ✉ 🗨

### CHINESE INVESTMENT IN CZECH REPUBLIC COMES UNDER THE SPOTLIGHT



Recent furor in the Czech Republic over the visit by the Dalai Lama and state awards have very much put the focus of attention on China and the strategic partnership that Prague signed up with Beijing at the start of the year. Questions are now being asked also about the surge of Chinese investments that were promised and whether the political price for those promised investments is excessively high.



Pomp  
and

([http://img.radio.cz/f1fporZjw-XR-floEznJCPR\\_8A=/fit-in/1200x1200/1460724195\\_\\_pictures/c/politik/si\\_tin\\_pching2.jpg](http://img.radio.cz/f1fporZjw-XR-floEznJCPR_8A=/fit-in/1200x1200/1460724195__pictures/c/politik/si_tin_pching2.jpg))  
Xi Jinping, photo: Angélica Rivera de Peña, CC BY-SA 2.0



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Trending Topics: Automotive Airlines Energy Highways Economics

## Jaguar Land Rover: Still coming to Slovakia, despite Brexit

British carmaker Jaguar Land Rover will still come to Slovakia despite Brexit, Alexander Wortberg, the company's executive director for the investment in Nitra, said on July 26.



Tata Group plans investing \$1.4 bn to establish a manufacturing plant in Slovakia.

# Multinationals hit the headlines when they leave or threaten they would leave...

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[News](#) > [Business](#) > [Business News](#)


## Brexit: JPMorgan confirms it will move hundreds of banking jobs from UK to EU

Firm has to 'be ready for day one, when negotiations finish', Daniel Pinto, head investment banking said

Ben Chapman | Wednesday 3 May 2017 10:24 BST | [38](#) comments

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## Banks begin moving some operations out of Britain



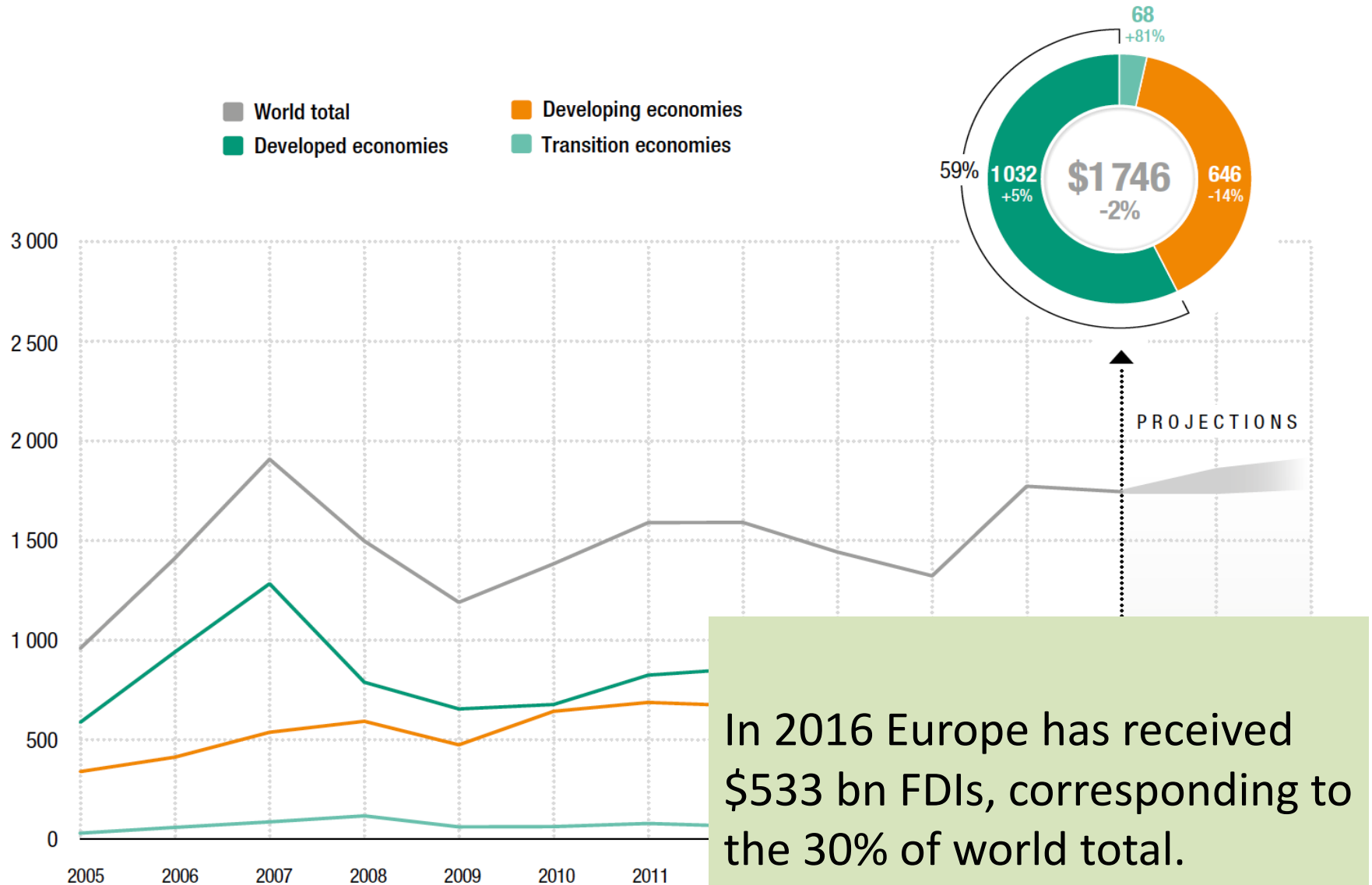
People walk to work in the City of London © Reuters

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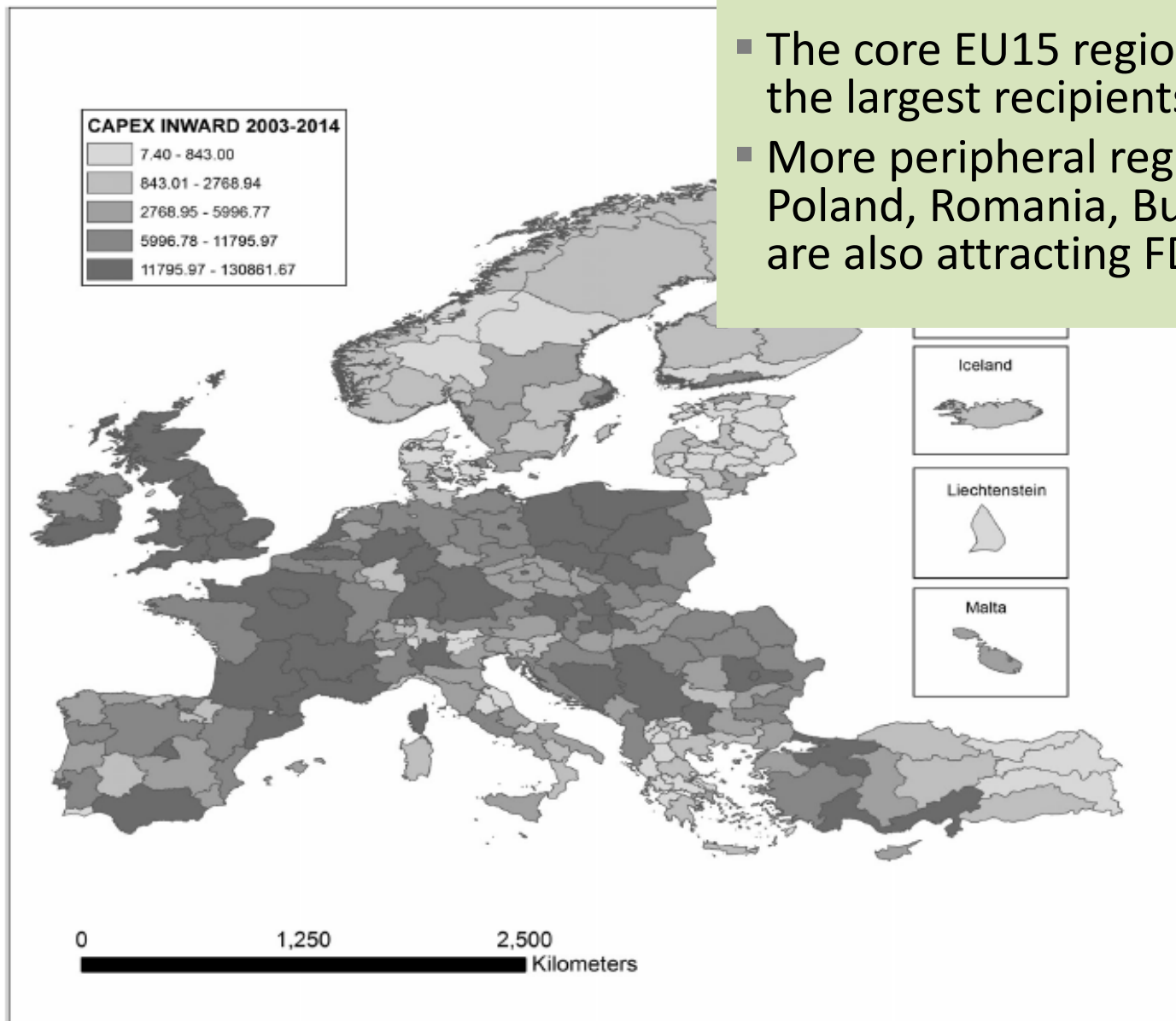
Figure I.1.

# FDI inflows, global and by group of economies, 2005–2016, and projections, 2017–2018

(Billions of dollars and per cent)



In 2016 Europe has received \$533 bn FDIs, corresponding to the 30% of world total.



- The core EU15 regions are the largest recipients of FDI;
- More peripheral regions in Poland, Romania, Bulgaria are also attracting FDI.

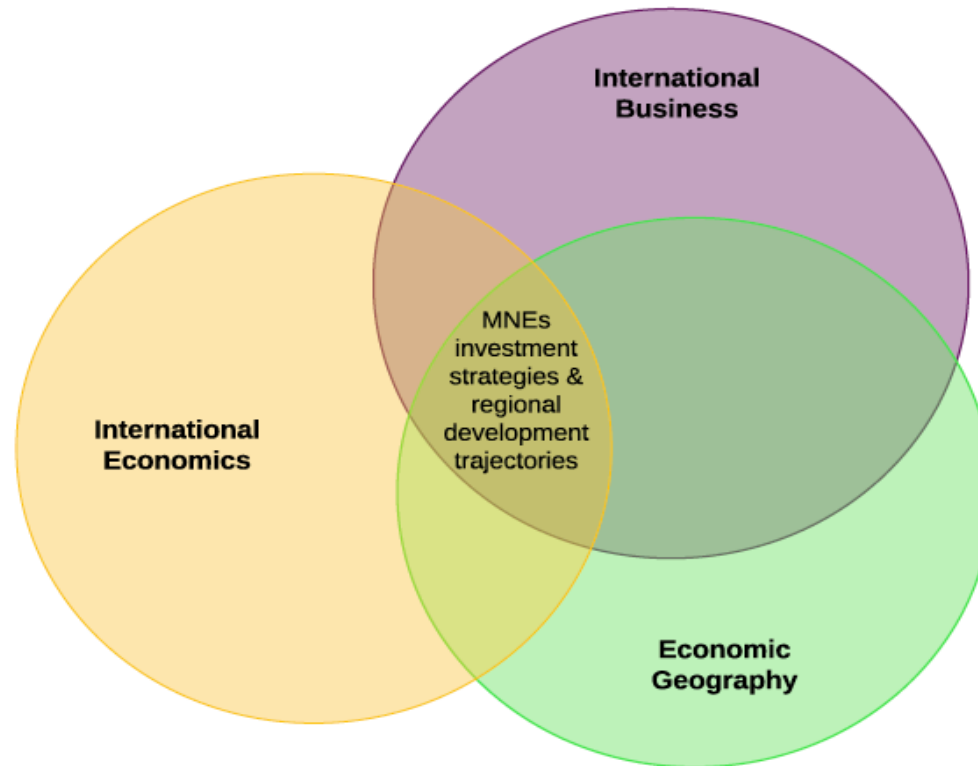
**Figure 1.** Foreign direct investment towards the regions of Europe (cumulative inward capital expenditure, 2003–14, US\$ millions).

Source: Authors' elaboration of fDi Markets data.

# MNEs as global pipelines

- Regional economic and innovation development does depend on a combination of
  - Localized productive and knowledge assets (i.e. the ‘local buzz’: Storper & Venable, 2004);
  - External knowledge through “global pipelines” (i.e. MNEs) (Bathelt, Mamberg & Maskell, 2004);
- Key question:

How MNEs investment strategies do interact with regional development strategies?



**International Business Studies: MNEs strategies.**

**International Economics: direct and indirect impact of FDIs on home and host countries (and regions).**

**Economic Geography: location and agglomeration strategies of MNEs and the spatial dimension of knowledge flows involving MNEs and local actors.**

# **A long-run research agenda on MNEs and regional development**

- ① On the location strategies of different GVC functions undertaken by MNEs;
- ② On different location strategies undertaken by MNEs from emerging countries (EMNEs) compared with MNEs from advanced countries;
- ③ On the choice between acquisitions and greenfield investments and its impact on regional economies.



# Innovation drivers, value chains and the geography of multinational corporations in Europe

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## Abstract

This paper investigates the geography of multinational corporations' investments in

the EU regions. The 'traditional' sources of location advantages (i.e. agglomeration economies, market access and labour market conditions) are considered alongside innovation and socio-institutional drivers of investments, captured by 'regional' conditions. This makes it possible to empirically assess the relative importance of such advantages in the location decision of investments and to disentangle the value chain and disentangle the differential role of national vs. regional factors. The empirical analysis covers the EU-25 regions and suggests that innovation conditions are crucially important for the location decision of the most sophisticated knowledge-intensive stages of the value chain.

*J. Econ. Geogr.* 14 (2014) F21–F38. doi:10.1093/jeg/fbt018

© The Author 2013. Published by Oxford University Press

June 2012 Date accepted: 3 June 2013



## Research Questions

- How do MNEs organise the different stages of their value chains in space?
- What is the role of national vs regional factors?

## Data and method

- **19,444 greenfield investments** from the entire world into the EU25 countries, geocoded at **NUTS2 level** (Source FDI Markets);
- **5 functions:** Headquarters, Innovative Activities, Commercial Activities, Manufacturing Activities, Logistic and Distribution;
- **Nested logit model:** a) choosing a country  $i$  and b) selecting a region  $j$  in the chosen  $i$  country.

# Investment location drivers

## 1) Innovation

- **R&D Investments** as a share of Regional GDP and **Patent Intensity**;
- **Social Filter** measuring structural pre-conditions to establish well functioning regional systems of innovation (Crescenzi & Rodriguez Pose, 2011);

## 2) **FDIs Regional Agglomeration**: a) total pre-existing investments; b) total investments in the same sector and c) total investments in the same functions;

## 3) **Market size and labour market indicators.**

# Findings in a nutshell

- MNEs locate the different functions where they can be carried out most effectively tapping into location-specific resources and capabilities;
- Regional factors are stronger drivers for:
  - R&D investments attracted by regions with strong innovation systems (proxied by the Social Filter):

## **Policy implications**

- Local governments should not try to attract headquarters, as decisions on their location depend on national-level features;
- They rather should try to attract innovative functions by improving their innovation system, their local knowledge assets and their socio-institutional environment.





5, 2016

4313.2015.1129395

## Strategic assets and the location strategies of emerging countries' multinationals in Europe<sup>†</sup>

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### ABSTRACT

This paper explores the location strategies of multinational enterprises (MNEs) from emerging countries (EMNEs) in search for regional strategic assets. The analysis is based on a systematic comparison between EMNEs and multinationals from advanced countries (AMNEs) in order to unveil similarities and differences between these two major sources of foreign investment into the regions of the European Union. The empirical results suggest that EMNEs follow a distinctive logic in their location strategies. They are attracted by the availability of technological competences only when their subsidiaries pursue more sophisticated and technology-intensive activities. Conversely, EMNEs share some behavioural similarities with AMNEs in their response to the spatial agglomeration of investments.

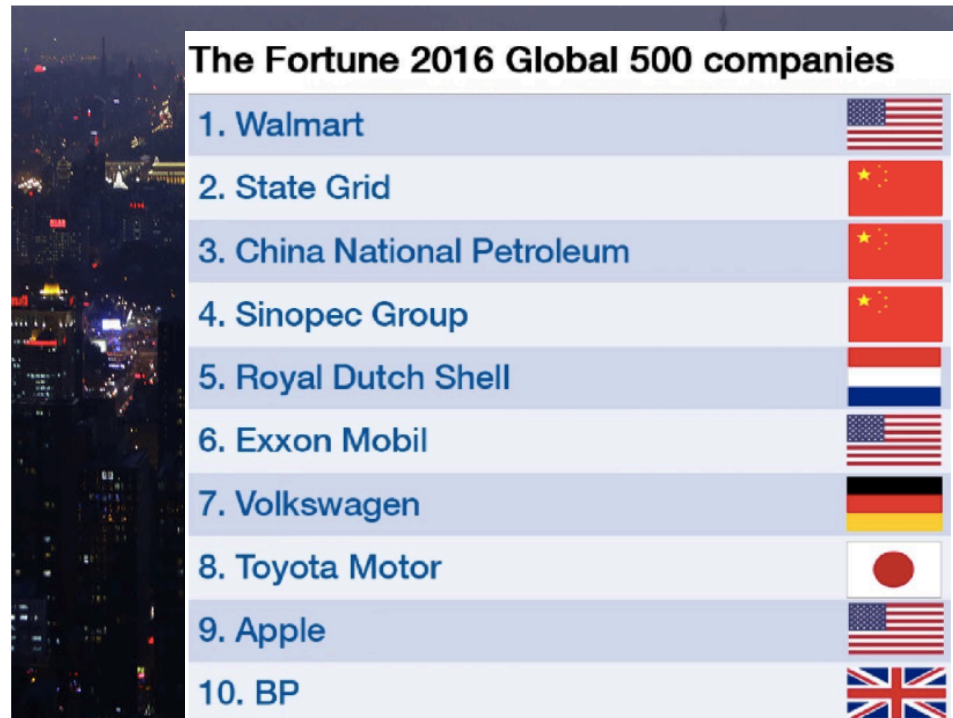
### ARTICLE HISTORY













## Research Question

Global Agenda | China | Growth

## The new Fortune Global 500 is out. It shows a shift in the world's business landscape



1. Walmart	
2. State Grid	
3. China National Petroleum	
4. Sinopec Group	
5. Royal Dutch Shell	
6. Exxon Mobil	
7. Volkswagen	
8. Toyota Motor	
9. Apple	
10. BP	

Source: Fortune, 2016

- Do MNEs from emerging countries follow different location strategies from MNEs from advanced countries?

# Findings in a nutshell

- EMNEs seek technological competences (measured by patent intensity) only when investing in knowledge intensive functions;

• Technological and cognitive gaps still prevent EMNEs to

## Policy implications

- Regional institutions can play a key role in enabling and accelerating the ‘insidership’ of EMNEs;
- Facilitating the connections with local firms and universities might be a possible policy tool to facilitate embeddedness within local innovation systems;
- This would also generate opportunities for advanced host countries’ managers and entrepreneurs to learn from new investors: win-win strategy (Giuliani et al, 2014).



# **FDI mode, firm heterogeneity and institutional conditions**



with  
Vito Amendolagine &  
Riccardo Crescenzi



# FDI mode choice

- MNEs conduct FDI by either engaging in **greenfield investments** (entering a foreign market by building a new enterprise) or in **mergers and acquisitions** (M&As) (entering a foreign market by buying an existing enterprise);
- Most of the empirical and theoretical economic literature has focused on the volume of FDI, neglecting its composition across modes;
- The impact of M&As and greenfield

MAR 23, 2015 @ 06:21 AM 20,534

The Little Black Book of Billionaire Secrets

## Pirelli Gets China As New Owner But Communist Driver Carries Big Risk



**Marcel Michelson**, CONTRIBUTOR

*I write about European business: firms, people, politics and economy.*

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### Chinese supplier plans electric car factory in Germany

Print Reprints Respond

Brian Parkin  
Bloomberg

May 4, 2017 18:56 CET

BERLIN -- China's Beijing WKW Automotive Parts Co. is betting on the future of electric mobility in Germany with a billion-euro factory.

Beijing WKW will invest as much as 1.13 billion euros (\$1.24 billion) on an electric car factory in the eastern state of Saxony that will create over 1,000 new jobs, according to a statement by the regional government on Thursday. Saxony courted WKW to set up manufacturing in the state to produce "premium" electric cars, according to the statement.

"Saxony is already a car state and we want that to remain so in the future," regional Economy Minister Martin Dulig said. WKW hopes to benefit from a "Made in Germany" cachet for marketing its cars. Ministry spokesman Marco Henkel said by telephone on Thursday. WKW hasn't requested state aid, he said.

The Chinese company's planned investment in a plant in Rothenburg/Oberlausitz near the German/Polish border is occurring just as German carmakers gear up to boost production of electric vehicles. Saxony is already home to plants owned by Volkswagen and BMW. WKW will benefit from proximity to about 750 car part suppliers in the region, according to the statement.

Volkswagen has production sites in Zwickau and Chemnitz in the Saxony, while Porsche builds its Cayenne, Macan and Panamera models in Leipzig. BMW says it has one of its most modern plants in the same city, where it has built electric cars since 2013.

# Global Mergers And Acquisitions Are At A Seven-Year High



Soyoung Kim and Greg Roumeliotis, Reuters

🕒 Jun. 30, 2014, 2:55 AM 🔥 5,422

According to UNCTAD (2017) cross-border M&As have risen to \$869 bl. in 2017 from \$721 bl. in 2016 and 432\$ bl. in 2015.



**Jeff Golman,** CONTRIBUTOR

*I write about middle-market deals and trends in the PE and M&A space.*

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# What does drive the mode choice?

- “*The two modes of FDI differ significantly in both the characteristics of the firm that engage in these modes as well as in the characteristics of the host countries in which firms invest*” (Nocke and Yeaple, 2007, 2008);
- MNE’s characteristics interact with the institutional contexts of target countries in shaping entry mode decisions (Schwens et al.2011);
- Sub-national factors might matter more than national-level ones in entry mode choices (Slangen, 2016);
- Following Nocke and Yeaple (2008), we investigate the entry mode choice as a positive assertive matching process between subsidiaries and headquarters:
  - Introducing the role of REGIONAL strategic assets and institutional conditions;
  - Firm-level characteristics interact with national and regional characteristics and institutional conditions shaping entry mode choices.

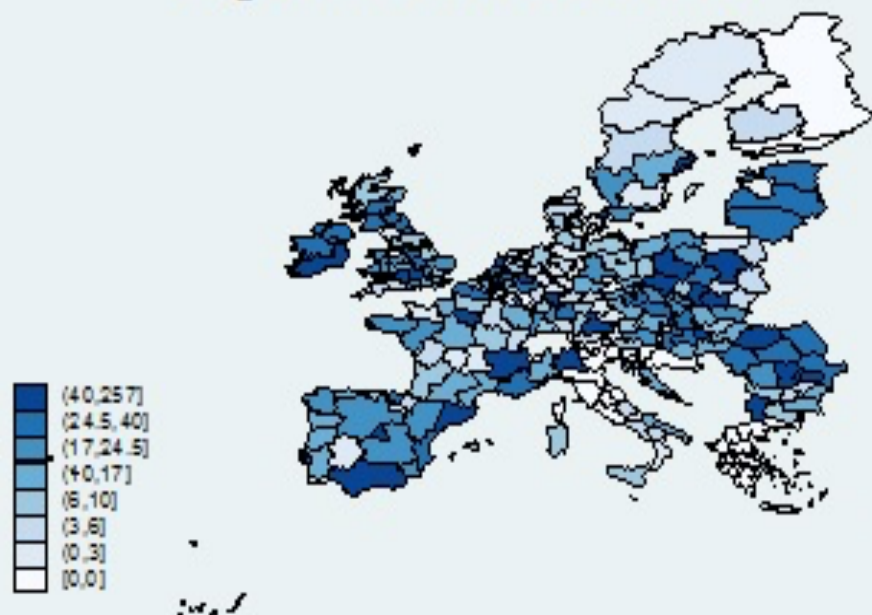
# Research Questions

- ① What **MNEs' characteristics** do influence the choice of the investment entry mode?
  - Are more productive (or more innovative firms) systematically favouring one entry mode over the other?
- ② Do **national AND regional** characteristics of the **host economy** matter for this choice?
  - Do institutional quality & innovative capacity matter? At which geographical level?
- ③ How are investing MNEs and 'host' regions matched via different entry modes?

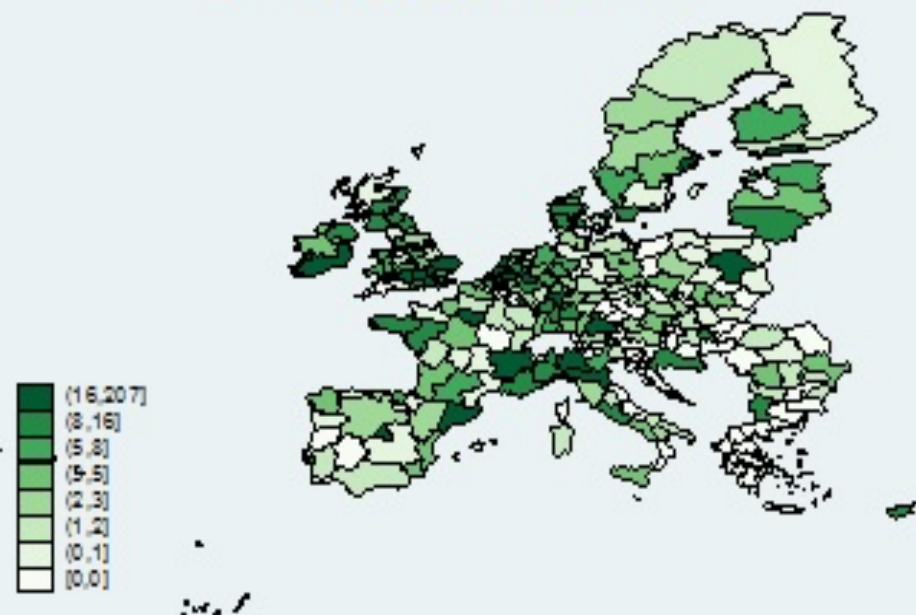
# Data

- Investors are selected from the **Forbes Global 2000 list** (2015): 1,116 companies with at least one investment in the EU-28 during the period from 2003-14 (40% of the total value of greenfield and M&A deals directed to the EU-28 in 2014: UNCTAD 2016);
- For each company, we identify all foreign investments in the EU-28 (2003-2014): M&A (Zephyr) and Greenfield FDI (fDi Markets):
  - For each investment we know the establishment mode, year, sector, country, region, city and financial value;
- After dropping greenfield investments where there are not potential acquisition targets (i.e. domestic companies in the same NACE 2-digit sector as the investment):
  - 7,338 deals: 2,001 majority-owned acquisitions (27%) and 5,337 greenfield investments (73%).

all greenfields 2003-2014



all M&As 2003-2014



## The empirical model

- Logit model (Nocke & Yeaple, 2008)
- Dependent variable:
  - 1 if the company opts for a **greenfield FDI** in industry **k** within country **l**;
  - 0 if parent firm **i** in the industry **j** **acquires** a foreign company in industry **k** within country **l**.

## Drivers of the mode choice

- **Firm-level characteristics**: productivity, size, industry diversification, past FDI experience; # of patents;
- **Regional characteristics** (as deviation from the national mean): size; GDP per capita, institutional quality, innovation level;
- **Country characteristics**: openness, geographical distance between the origin and the destination country of FDI;
- Time controls; country and industry fixed effects.

Regional (and national) FDI policies should be tailored towards the particular FDI mode: greenfield vs. acquisitions.

- Are different types of firms involved in different modes?
  - More efficient and innovative MNEs are more likely to undertake greenfield investments;
  - MNEs with previous investments in the same country enter with acquisitions;
- Do local strategic assets influence the entry mode choice?
  - National and Regional QoG and innovative capacity increase the probability of foreign acquisitions;
  - Regional QoG helps with the 'selection' of greenfield investments by the most efficient MNEs.

## Some general takeaways

- MNEs are driven by different location drivers according to their **value chain stages, country of origin, establishment mode choice**;
- This heterogeneity results in complex sub-national strategies of internationalization;
- Regional development policies should evolve from the attraction of '*inward FDI no matter what*' to more diversified and place-sensitive policies accounting for this heterogeneity;
- “New” FDI policies need to be informed by diagnostic tools that fully account for the multi-faced nature of FDI.



**Thank you**

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# The variables

VARIABLES	DESCRIPTION
Dependent Variable	
GREEN	Indicator =1 for greenfield, 0 otherwise
Investing Company Firm-level Variables	
EFFICIENCY	Sales/Employee (log)
SIZE	Employees (log)
DIVERSIFICATION ACROSS INDUSTRIES	Number of SIC sectors in which the firm is active
INNOVATION	Cumulative EPO patents (log)
EXPERIENCE	Indicator for previous experience in the country of destination
INTERNATIONALISATION	N. of countries with affiliates of the company (log)
FOREIGN SALES RATIO	Foreign sales/Total Sales (log)
Host Economy Variables	
OPEN_COUNTRY	(Exports plus imports)/GDP
DISTANCE_COUNTRY	Origin-Destination country distance
AGGLOMERATION_REGION	# companies in the target region (log)
QoG_COUNTRY	Quality of Government (country level average)
QoG_REGION_REL	Quality of Government (regional deviation from national average)
EPO_PC_COUNTRY	Log n. of EPO patents pc (country-level average, log)
EPO_PC_REGION_REL	Log n. of EPO patents pc (regional deviation from country-level average, log)
GDP_PC_COUNTRY	GDP pc (country-level average, log)
MOTORWAY_GDP_REGION	Kms of motorways per million euros of GDP (region-level)

# KEY RESULTS

	Baseline		QoG		EPO_PC	
	(1)	(2)	(3)	(4)	(5)	(6)
SALES_EMPLOYEES	0.5303***	0.5173***	0.5268***	0.4910***	0.5195***	0.3111
	(0.0908)	(0.0912)	(0.0908)	(.0941)	(0.0915)	(.1912)
INNOV	0.0403*	0.0421*	0.0422*	0.0719***	0.0425*	.2085***
	(0.0232)	(0.0231)	(0.0232)	(0.0249)	(0.0232)	(0.0553)
EXP	-0.7174***	-0.6488***	-0.6413***	-0.6406***	-0.6550***	-0.6515***
	(0.1544)	(0.1568)	(0.1568)	(0.1580)	(0.1577)	(0.1574)
AGGLOMERATION_REGION	-0.0823*	-0.0948*	-0.1574***	-0.1635***	-0.0688	-0.0779
	(0.0451)	(0.0503)	(0.0489)	(0.0495)	(0.0471)	(0.0480)
QoG_REGION		-0.1678**				
		(0.0785)				
EPO_PC_REGION		-0.1983***				
		(0.0531)				
QoG_COUNTRY			-0.4026***	-.7881**		
			(0.0839)	(0.3983)		
QoG_REGION_REL			-0.1756	-2.0218***		
			(0.1245)	(.7567)		
SALES_EMPLOYEES # QoG_COUNTRY				0.0966		
				(0.0672)		
SALES_EMPLOYEES # QoG_REGION_REL				0.3375***		
				(0.1272)		
LOG_EPO# QoG_COUNTRY				-0.0673***		
				(0.0190)		
LOG_EPO#QoG_REGION_REL				-0.0339		
				(0.0340)		
EPO_PC_COUNTRY					-0.2927***	-.4653**
					(0.0492)	(.2263)
EPO_PC_REGION_REL					-0.1710**	.3800
					(0.0676)	(.3925)
SALES_EMPLOYEES#EPO_PC_COUNTRY						0.0472
						(0.0379)
SALES_EMPLOYEES#EPO_PC_REGION_REL						-0.1062
						(0.0677)
LOG_EPO#EPO_PC_COUNTRY						-0.0380***
						(0.0111)
LOG_EPO#EPO_PC_REGION_REL						0.0274
						(0.0205)
Constant	3.0156	-2.3757	-0.9471	-0.5015	-2.2708	-0.9308
	(2.1268)	(2.2318)	(2.2503)	(2.2260)	(2.2042)	(2.4303)
TIME CONTROL	YES	YES	YES	YES	YES	YES
INVESTOR INDUSTRY FE	YES	YES	YES	YES	YES	YES
Observations	4995	4961	4995	4995	4961	4961

**Notes:** Logit estimator. Dependent variable: GREEN=1 if greenfield and 0 if acquisitions. Robust standard errors are shown in parentheses and clustered by investor. \*\*\*, \*\*, \* indicate significance level at, respectively, 1%, 5%, 10%. We also control for: **firm-level size, sectoral diversification and n. of foreign countries where they invested; country-level distance and openness; region level GDP pc, infrastructure quality and human capital.**