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## **Time to BRIC it? Internationalization of European family firms in Europe, North America and the BRIC countries**

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For a sample of 1243 European companies, we analyse the link between firm type and foreign direct investment (FDI) locations. We find substantial empirical evidence that being a family firm does not only affect the overall propensity for FDI but that this effect is also specific to target regions. Overall, family firms invest more than managerial-led firms, particularly in Europe and North America. Furthermore the BRIC countries Brazil, Russia, India and China do not constitute a homogenous attractiveness cluster for FDI.

**Keywords:** Foreign direct investment; family firms; BRIC

**JEL Classification:** D21; F23; L22

## I. Introduction

Besides the enormous global trade in goods and services, foreign direct investment (FDI) has become a major internationalization mode for firms. Key determinants of the FDI decision include corporate competitiveness and locational attractiveness (e.g. Assunção *et al.*, 2011; Blonigen, 2005; Helpman *et al.*, 2004; Pusterla and Resmini, 2007). Even though Europe and the United States are still the main recipients of FDI, investments into Brazil, the Russian Federation, India and China—together often referred to as BRIC countries—display a small and relatively stable increase (see Fig. 1). In 2011 the latter already accounted for 18% of inward FDI flows. Among the transition economies, the BRIC countries are those economic regions characterized by large markets and relatively high growth rates. Moreover, their attractiveness for FDI is clearly confirmed by the ranking based on the FDI Confidence Index by A.T. Kearney (2012), measuring the political, institutional and socio-economic setting of a country with respect to potential foreign investments (see Table 1). While the overall attractiveness of BRIC for FDI is interesting and surely supportive for the economic development of these countries (Hunya and Stöllinger, 2009), the propensity to choose a certain location, such as the BRIC countries, might not be shared by all types of firms. In fact, recent literature indicates that internationalization modes and specific regional choices depend on firms' characteristics and, especially, their ownership structure and strategic orientation (Filatotchev *et al.*, 2008).

Evidently most of the research on business globalization has concentrated on firms characterized as multinational enterprises (MNEs). Nevertheless, research on the internationalization of small- and medium-sized enterprises (SMEs) as well as family firms has gained momentum over the last two decades (Bernavides-Velasco *et al.*, 2013). Fernández and Nieto (2006) discovered that SME's international involvement is negatively related to family ownership. Among others Kontinen and Ojala (2010) showed that the unwillingness to take risks and the fear of losing control are prominent factors impeding family firms to internationalize. Thus, risk-taking attitudes, the ownership structure, and the internationalization of SMEs are closely linked (George *et al.*, 2007). Since losing

control is likely to be driven by the location-specific characteristics, the family business effect might substantially depend on target regions. We contribute to this literature by empirically examining the extent to which family and non-family firms differ in their FDI decisions and especially whether or not this effect is specific to target regions. We have a specific focus on the BRIC countries.

The article is organized as following. In Section 2 the database and descriptive statistics are presented. The empirical results are presented in Section 3. Finally, a short summary is provided in Section 4.

## II. Data

The data used in this article stems from an anonymous firm survey on the internationalization behaviour of 1267 family- and management-controlled enterprises, which was conducted by Ernst & Young in Germany, Austria and Switzerland in June 2011. After excluding firms with incomplete responses, the sample includes 1243 firms. Table 2 summarizes the descriptive statistics.

The dependent variable measures a firm's propensity to become engaged in FDI in a specific economic region or country; it ranges from "no FDI is planned" (1), over "don't know" (2), "long-term within 10 years" (3), "mid-term within 5 years" (4), "short-term within 2 years" (5), and "already engaged" (6). Among the independent variables we include some categorical variables for *firm age* (less than 5, 5 to 10, 11 to 25, more than 25 years) and *size*, measured as the number of employees (less than 49, 50 to 249, 250 to 500, more than 500 employees). The knowledge intensity is captured by a question asking for the *R&D importance* (1=low importance to 4=very high importance). Dummy variables are included for the *firm type* (1=family-owned firm, 0=management-run firm), for firm's *country of origin* (Germany, Austria and Switzerland), for the *FDI destination region* (EU and North America) or *country* (Brazil, Russian Federation, India and China), and for seventeen *industry clusters*.

### III. Empirical Results

In a first step we test for general regional effects on the propensity for FDI (see Model 1 in Table 3). Regarding our control variables, the first (and subsequent models) indicate that larger and German firms in our sample display a higher propensity to become engaged in FDI. Firm age and the R&D intensity do not have statistically significant effects. In line with the literature (Alfaro and Charlton, 2009), we find industry-specific effects on the FDI location decision (reported are *F*-test statistics for joined significance tests).

Estimates for the target regions show that firms in our sample—when not differentiating the firm types—are less likely to invest outside of Europe. Among the non-European regions, however, North America, China and Russia are more attractive than Brazil and India. Table 4 reports and tests for the corresponding pair-wise regional differences, indicating that North America, China and Russia do not statistically differ from one another with respect to their attractiveness for FDI. In contrast, India and Brazil constitute a second cluster characterized by a small difference in FDI between one another but large differences to all other countries and regions. Thus, instead of a homogenous BRIC and an industrialized country cluster the current analysis reveals three attractiveness clusters for FDI with the strongest being (1) Europe, followed by (2) North America, China and Russia, and further behind (3) India and Brazil.

By including a family business indicator, Model 2 tests whether or not family firms are less inclined to become engaged in FDI than managerial-led firms. Interestingly, our results indicate a small positive effect on the FDI decision for family businesses. Compared to managerial-led companies, family firms display a higher propensity to become engaged in FDI.

Finally, in Model 3 we include two-way interaction terms of target locations with the family firm dummy in order to the extent to which a firm's region- and country-specific propensity to FDI depends on the firm type. The main effect of family business (now reflecting the family business effect for European countries) is larger and all interaction terms are negative, though only statistically significant for China. For a better interpretation Table 5 reports the family business

effects for the respective target locations. While we clearly detect that family firms invest as much as managerial-led firms in China, they invest significantly more in Europe and to some extent in North America. All findings are confirmed when applying an ordered probit (Model 4) instead of the OLS estimation model. Here, results additionally indicate a slightly higher attractiveness of Brazil and Russia for FDI locations of family firms (see Table 5).

#### **IV. Summary**

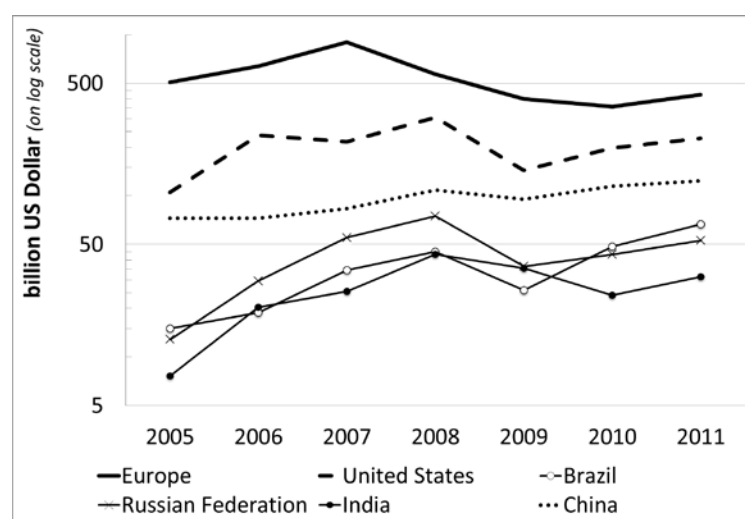
We analysed the internationalization behaviour of European family and managerial-led firms in Europe, North America and the BRIC countries. The main findings are threefold. First and independent of the firm type, we find evidence for three distinct attractiveness country clusters for FDI. Outside Europe, naturally being the prime target destination for European firms, North America, China and Russia are more similar in their attractiveness to one another than usually presumed. Among the considered regions, Brazil and India seem to depict the least attractive cluster from a European perspective. Second and in contrast to previously reported results (Kontinen and Ojala, 2010), European family firms are on average more likely to invest abroad than managerial-led firms. Third and forming an original contribution of this study, we find that—compared to managerial-led firm—the effect of being a family business on FDI is target region specific. Family businesses from Germany, Austria, and Switzerland tend to invest more in Europe (outside their home country) and in North America. In addition, but without robust indications, within the BRIC region family firms seem to display a slightly higher propensity to invest in Russia and Brazil. Thus, cultural distance and risk attitudes might not only play a role for FDI in general, but also in explaining differences in the internationalization strategies of family- and managerial-led firms. More research is needed to check the generalizability of our findings.

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## IV. Figures and Tables

**Figure 1. FDI inflows 2005-2011**



Source: UNCTAD, 2013

**Table 1. Economic indicators**

2011 <sup>a</sup>	Population	GDP <sup>b</sup>	GDP per capita	Annual GDP growth rate (forecast 2005-11)	FDI % of total world	FDI Confidence Index (rank) <sup>c</sup>
<b>Europe</b>	517 022 590	18 684	36 144	0.57	27.9	-
<b>United States</b>	316 939 752	15 121	47 708	0.48	14.9	4
<b>China</b>	1 347 565 324	7 063	5 241	10.76	8.1	1
<b>India</b>	1 241 491 960	1 944	1 566	8.04	2.1	2
<b>Brazil</b>	196,655,014	2 414	12 276	4.07	4.4	3
<b>Russian Federation</b>	142,835,555	1 841	12 890	2.85	3.5	12

Source: UNCTAD Statistics, 2013; A.T. Kearny, 2012

Notes: <sup>a</sup> All figures refer to year 2011 if not stated otherwise

<sup>b</sup> US Dollars at current prices and current exchange rates in billions

<sup>c</sup> A.T. Kearney FDI Confidence Index, 2012 (based on survey from 2011)



**Table 2. Descriptive statistics**

<b>Age</b>		Relative frequency		<b>Industry</b>		Relative frequency	
< 5 years	22	(1.8%)	Chemical & pharmaceuticals	74	(6.1%)		
5 – 10 years	80	(6.6%)	Energy supply & distribution	42	(3.5%)		
11 –25 years	230	(18.9%)	Hotel, catering & tourisms	24	(2.0%)		
>25 years	880	(72.5%)	Health services	127	(10.5%)		
			Trade	193	(15.9%)		
			Telecommunications	40	(3.3%)		
<b>Size</b>	Relative frequency		Real estate	11	(0.9%)		
1 – 49 employees	45	(3.7%)	Consumer products	56	(4.6%)		
50 – 249 employees	280	(23.1%)	Media & advertising	39	(3.2%)		
250 – 500 employees	338	(27.8%)	Transportation & logistics	31	(2.6%)		
> 500 employees	546	(45.0%)	Other services	132	(10.9%)		
			Banking & insurance	74	(6.1%)		
<b>Country of origin</b>	Relative frequency		Construction	99	(8.2%)		
Germany	706	(58.2%)	Industrial products & automotive industry	245	(20.2%)		
Austria	198	(16.3%)	Missing	27	(2.2%)		
Switzerland	310	(25.5%)					
			<b>Importance of R&amp;D</b>	Relative frequency			
<b>Firm type</b>	Relative frequency		Low	10	(0.8%)		
Family firm	418	(34.4%)	Moderate	52	(4.3%)		
Managerial-led firm	796	(65.6%)	High	382	(31.6%)		
			Very high	763	(63.2%)		

**Table 3. Regression results**

		<b>Model 1 (OLS)</b>	<b>Model 2 (OLS)</b>	<b>Model 3 (OLS)</b>	<b>Model 4 (ordered Probit)</b>
<b>Basic firm characteristics</b>					
Age	5 – 10 years	-0.04 (0.30)	-0.03 (0.30)	-0.03 (0.30)	-0.03 (0.19)
	11 – 25 years	-0.23 (0.28)	-0.23 (0.28)	-0.23 (0.28)	-0.14 (0.18)
	>25 years	-0.07 (0.28)	-0.08 (0.27)	-0.08 (0.27)	-0.07 (0.18)
Size	49 - 249 employees	0.31 (0.21)	0.35 (0.21)+	0.35 (0.21)+	0.26 (0.16)+
	250 – 500 empl.	0.61 (0.21)**	0.66 (0.21)**	0.66 (0.21)**	0.45 (0.16)**
	> 500 employees	0.90 (0.21)***	0.97 (0.21)***	0.97 (0.21)***	0.64 (0.16)***
Country	Austria	-0.19 (0.12)+	-0.19 (0.12)+	-0.19 (0.12)+	-0.13 (0.07)+
	Switzerland	-0.22 (0.11)*	-0.22 (0.11)*	-0.22 (0.11)*	-0.15 (0.07)*
<b>Industry dummies (F)</b>		incl. (25.4)***	incl. (23.6)***	incl. (23.6)***	incl. (191.7)***
R&D intensity		0.02 (0.07)	0.02 (0.07)	0.02 (0.07)	0.02 (0.05)
<b>Target regions</b>					
Europe		- base line-	- base line-		- base line-
North America		-1.66 (0.07)***	-1.66 (0.07)***	-1.65 (0.08)***	-0.98 (0.05)***
BRIC countries					
	Brazil (B)	-2.18 (0.07)***	-2.18 (0.07)***	-2.14 (0.08)***	-1.29 (0.05)***
	Russia (R)	-1.69 (0.07)***	-1.69 (0.07)***	-1.57 (0.08)***	-0.95 (0.05)***
	India (I)	-2.02 (0.07)***	-2.02 (0.07)***	-1.96 (0.08)***	-1.18 (0.05)***
	China (C)	-1.74 (0.06)***	-1.74 (0.06)***	-1.70 (0.08)***	-1.02 (0.05)***
<b>Firm type</b>					
Family vs. managerial-led firm			0.16 (0.09)+	0.30 (0.12)*	0.17 (0.08)*
<b>Region-specific firm type effect</b>					
North America × Family business				-0.05 (0.14)	-0.01 (0.09)
Brazil × Family business				-0.13 (0.14)	-0.03 (0.09)
Russia × Family business				-0.10 (0.14)	-0.04 (0.09)
India × Family business				-0.16 (0.14)	-0.06 (0.09)
China × Family business				-0.36 (0.14)**	-0.18 (0.09)*
Constant		4.46 (0.44)***	4.35 (0.44)***	4.31 (0.44)***	
Threshold 1					-0.79 (0.29)
Threshold 2					-0.66 (0.29)
Threshold 3					-0.48 (0.29)
Threshold 4					-0.26 (0.29)
Threshold 5					-0.12 (0.29)
Obs. (clusters)		7242 (1207)	7242 (1207)	7242 (1207)	7242 (1207)
R <sup>2</sup> (F) / Pseudo R <sup>2</sup> (χ <sup>2</sup> )		0.23 (81.4)***	0.23 (81.3)***	0.23 (70.7)***	0.09 (1197.2)***

*Notes:* For Models 1, 2, and 3, cluster-robust standard errors in parentheses; for joint significance test of industry dummies and total model we report the *F*-statistic in parentheses. For Model 4, cluster-bootstrapped standard errors in parenthesis; for joint significance test of industry dummies and total model we report the Chi-squared statistic in parentheses. Omitted base groups are “<5 years” for age, “<49 employees” for size, and “Germany” for country. Significance levels: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ , +  $p < 0.1$

**Table 4. Differences between regions with respect to FDI**

	Europe	North America	China	Russia	India	Brazil
Europe	<b>0</b>	<b>-1.66 (0.66)***</b>	<b>-1.69 (0.07)***</b>	<b>-1.74 (0.06)***</b>	<b>-2.02 (0.07)***</b>	<b>-2.18 (0.07)***</b>
North America	<b>1.66 (0.66)***</b>	0	-0.03 (0.05)	-0.07 (0.06)	-0.36 (0.05)***	-0.52 (0.05)***
China	<b>1.69 (0.07)***</b>	0.03 (0.05)	0	-0.05 (0.06)	-0.33 (0.05)***	-0.49 (0.05)***
Russia	<b>1.74 (0.06)***</b>	0.07 (0.06)	0.05 (0.06)	0	-0.28 (0.05)***	-0.45 (0.05)***
India	<b>2.02 (0.07)***</b>	0.36 (0.05)***	0.33 (0.05)***	0.28 (0.05)***	0	-0.16 (0.05)**
Brazil	<b>2.18 (0.07)***</b>	0.52 (0.05)***	0.49 (0.05)***	0.45 (0.05)***	0.16 (0.05)**	0

Notes: Estimates in the first column and first row (reported in bold) are taken from Model 1 of Table 3. Differences are calculated (column region minus row region) and tested with a corresponding *t*-test, with robust standard errors in parentheses. Significance levels: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ , +  $p < 0.1$

**Table 5. Region-specific effects of being a family business on propensity for FDI**

Region	Family Business Effect		
	Calculation	Model 3 (OLS)	Model 4 (ord. probit)
Europe	$\beta_{FAM} =$	0.30 (0.12)*	0.17 (0.08)*
North America	$\beta_{FAM} + \beta_{FAM \times NA} =$	0.25 (0.13)+	0.16 (0.07)*
Brazil	$\beta_{FAM} + \beta_{FAM \times B} =$	0.16 (0.12)	0.14 (0.07)+
Russia	$\beta_{FAM} + \beta_{FAM \times R} =$	0.20 (0.13)	0.14 (0.07)+
India	$\beta_{FAM} + \beta_{FAM \times I} =$	0.13 (0.12)	0.11 (0.07)
China	$\beta_{FAM} + \beta_{FAM \times C} =$	-0.06 (0.12)	-0.01 (0.07)

Notes: Standard errors in parentheses. Significance levels: \*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ , +  $p < 0.1$