Is Destiny Worth the Distance? On Private Equity in Emerging Markets

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Making the case for EMPE

Private equity: Emerging signs of a comeback

MARCH 2018 (MAGAZINE) BY JOSEPH MARIATHASAN

Emerging private equity markets deserve the attention of investors with a long horizon

Key points

- Emerging markets have been in the doldrums since the global financial crisis, but things are starting to look up again
- · At the same time, values are stretched in developed markets
- · Growth in consumers is a key theme
- Local private equity firms are becoming more prevalent, particularly in Asia

≡ Forbes

Private Equity Shifts Gears In Emerging Markets

After surveying another year of disappointing results from their emerging market investments in 2013, many private equity (PE) investors that had enthusiastically piled into the big developing economies of Brazil, Russia, India and China (the BRICs) are rethinking their emerging market strategies.

Research Questions

- ▶ Do PE firms in developed countries achieve higher returns when investing in EM? and compared to local PE?
- Are any differences in returns driven by geographical and cultural distances?

Main findings

- ► Evidence supporting the *money chasing deals* hypothesis in DM (reversed in EM).
- ► Geographical and cultural distances have both individual and joint effects on performance.
- ➤ Success of follow-on deals in EM is highly dependant on success of previous deals.

Challenges associated with data

Proprietary databases, PPMs



Commercial databases







LP-sourced data







Local PE associations













DATASTREAM

26 DM countries

22 EM countries

11,807 GPs

25,514 Funds

84,036 Deals

(Final sample of 20,249 Deals)

Invested from 1980 and exited up to 2016

Proprietary databases, PPMs





Commercial databases







LP-sourced data







Local PE associations



Defining emerging markets

- ➤ The International Monetary Fund (IMF) classifies 23 countries as emerging markets
- Morgan Stanley Capital International (MSCI) also classifies 23 countries as emerging markets with some difference between the two lists.
- ▶ Standard and Poor's (S&P) and Russell each classify 21 countries as emerging markets
- Dow Jones classifies 22 countries as emerging markets.

Measuring culture – at the national level

There are four measures of culture used by researchers:

- ► Hofstede's (1980, 2001) dimensions
- Schwartz's (1992, 1994) value types
- ► The World Value Survey
- ► The Global Leadership & Organizational Behavior Effectiveness (GLOBE) study (House et al. 2004).

In the HF literature, instance of language as a proxy for cultural proximity (Teo, 2009): managers who are native language speakers are more likely to achieve higher performance in geographically distant investments

Measuring culture – at the PE firm level

- ► History of work experience of individuals within GP firms (sourced from Capital IQ), and matched to our dataset
- List of countries with locally spoken languages (from World Fact Book): *widely-spoken (lingua franca)* and the *widely-understood* languages in each country + the official language.

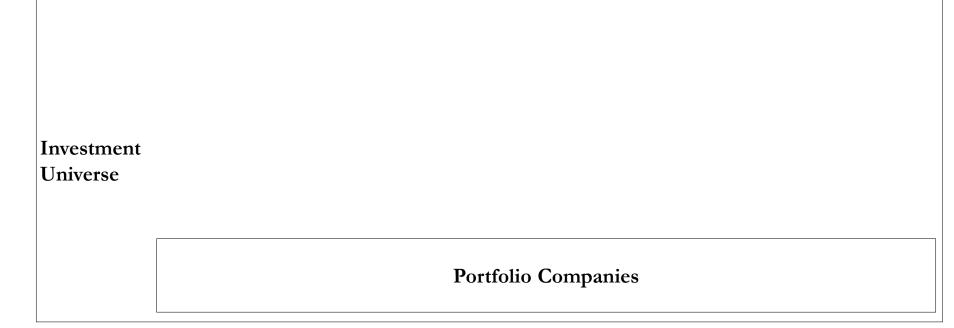
Measuring culture – at the PE firm level

- Managers who are (native) speakers of the target country's key languages are likely to have an (informational, easiness) advantage.
- We use names to establish (native) language speakers (name resonance).
- ▶ Managers are also assumed to speak the language of where the GP is located.
- ► Three measures: static, level (normalized) and HH measure + Rank

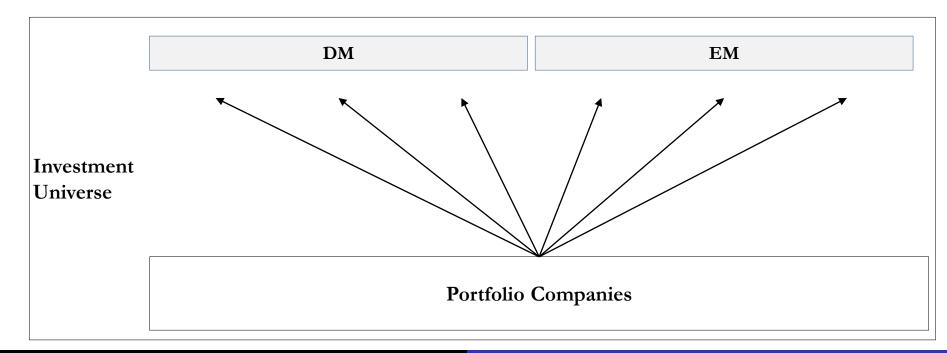
Company	Text	Language	Name Resonance	Relevance
DC Venture Partners	Wakefield, Kevin	en	English	100
DC Venture Partners	Walker, Steve	nl, en	Dutch, English	100
DC Venture Partners	Werle, Keith	de	German, English	100
DC Venture Partners	Holmes-Rubin, Linda	en	English	100
DC Venture Partners	May, John	en	English	100
13i Capital Corporation	Suddath, William	en	Northeastern Dinka, English	100
13i Capital Corporation	Ball, Jess	en	English	100
13i Capital Corporation	Thukkaram, Ram	ha	Hausa	100
13i Capital Corporation	St.Clair, Ronald	fr, no, en	French, Norwegian Bokmål, English	100
13i Capital Corporation	Bisesi, Dawn	tr, en	Turkish, English	100
13i Capital Corporation	Lubin, Robert	dip, en, fr	Northeastern Dinka, English, French	100
13i Capital Corporation	Miller, Peter	sv	Swedish	100
13i Capital Corporation	Ratzan, Brian	ur, en	Urdu, English	100

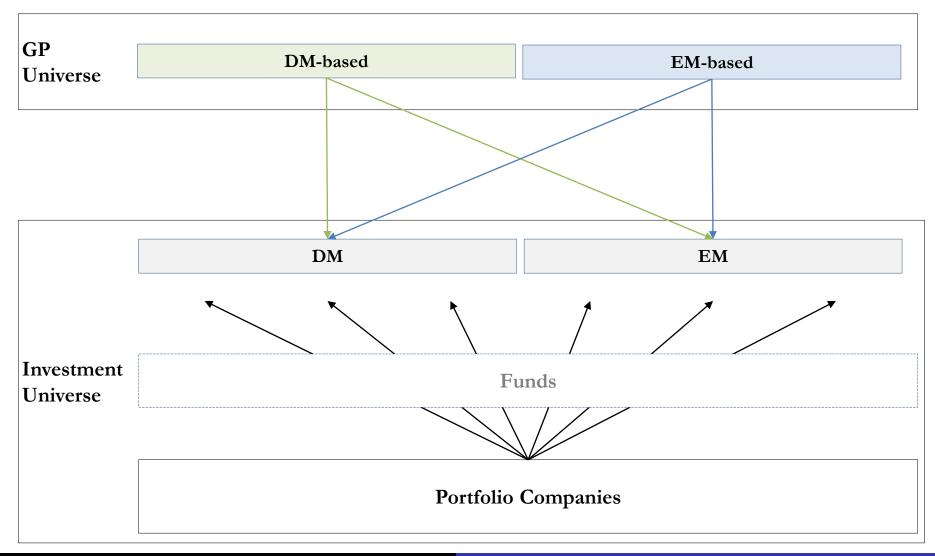
GP Universe EM-based

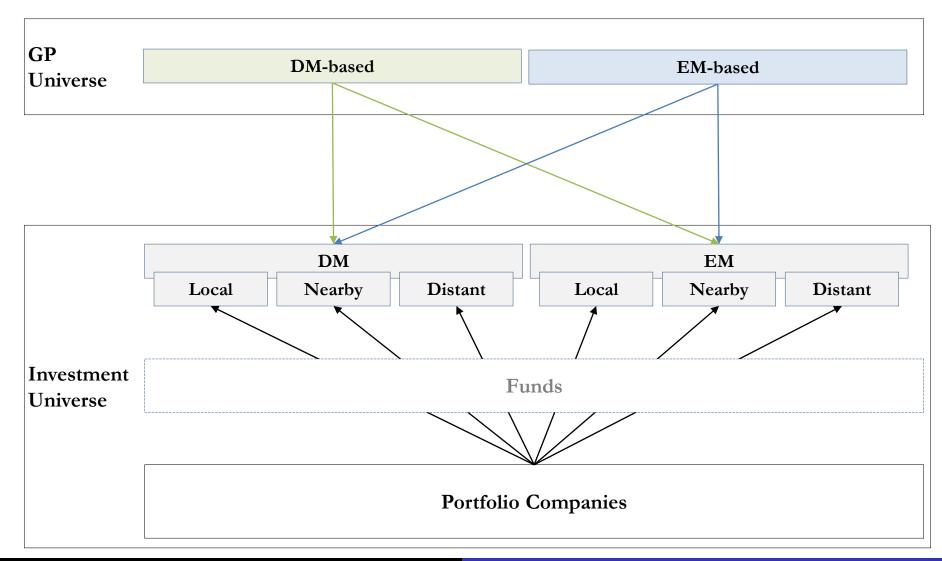


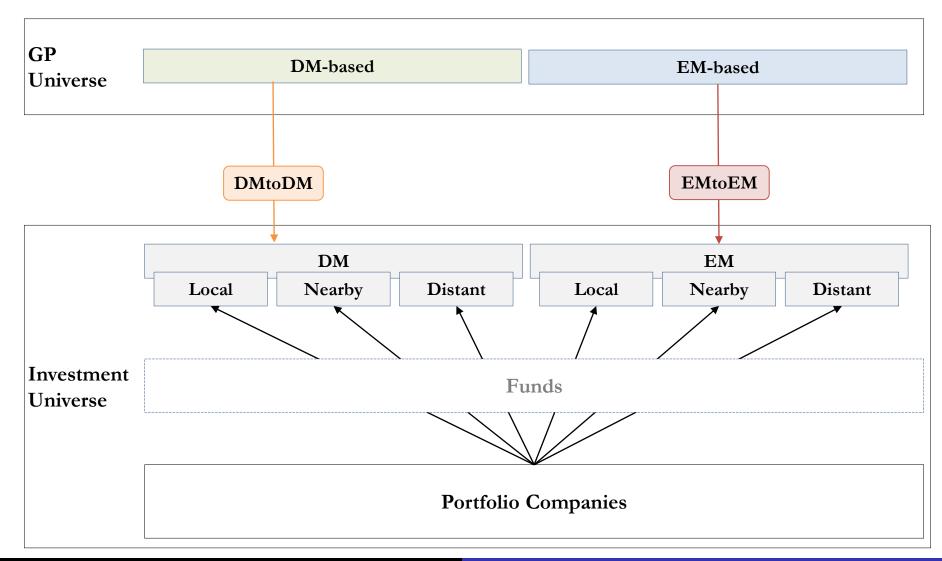


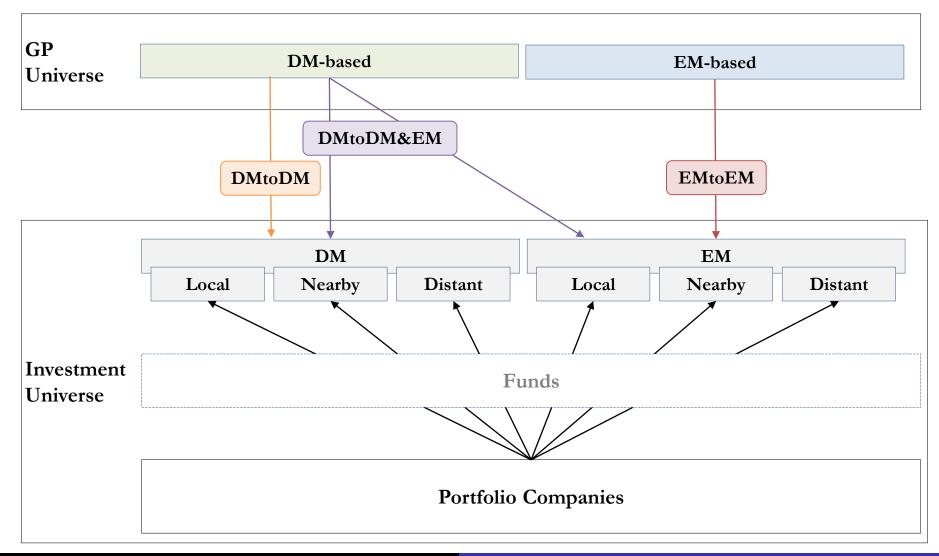


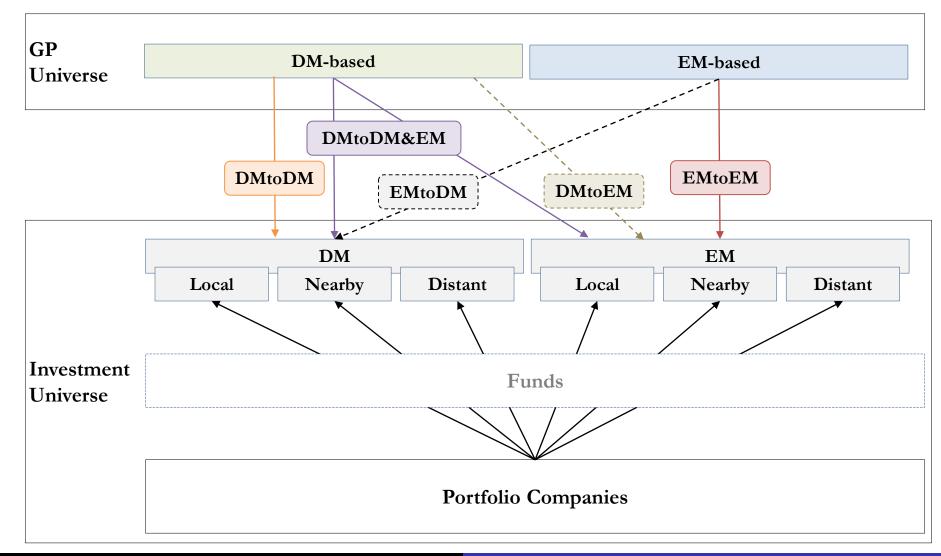












Data Structure: the backing channel

```
GPCharacteristics Funds Funds Characteristics Fund metrics Company
                                                                   Company Characteristics
                                                                                            Company metrics
                                                                                                             Other data
                 Name
                City
                Country
                Region
                Founding date
                Number of deals
                Number of managed funds
                AUM
                Affiliations
                Individual managers profiles and characteristics
                Investment and deal directions
```

Data Structure: the backing channel

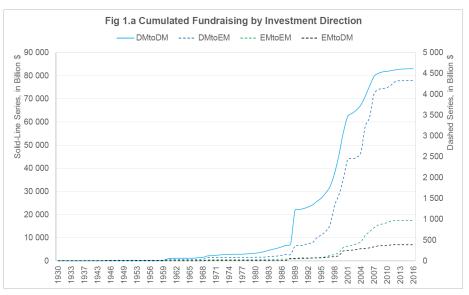
GP	GPC haracteristics	Funds	Funds Characteristics	Fund metrics	Company	Company Characteristics	Company metrics	Other data
1		1						
1		1						
1		1						
1		2						
1		2						
2		•••	•••	•••				
2		•••	•••	•••	NI			
2		•••		•••	Name			
2					City			
2			•••	•••	Country			
2					Region			
2					Vintage			
2					Style			
2					Number of			
					Number of			
						stment dates		
					Size			
•								
•								
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N			•••					
N								

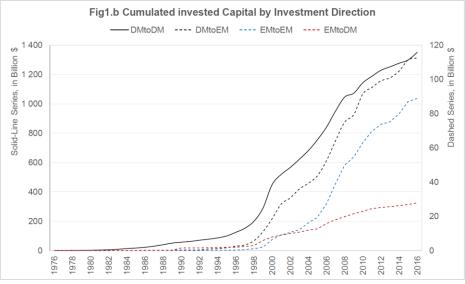
Data Structure: the backing channel

(GP	GPCharacteristics	Funds	Funds Characteristics	Fund metrics	Company	Company Characteristics	Company metrics	Other data
	1		1			1			
•	1		1			2			
•	1		1			3			
•	1		2			1			
•	1		2			2			Name
									City
2	2								Country
- 2	2								Region
2	2								Founding year
2	2								Investment date
2	2								Exit dates
2	2								Exit types
- 2	2								% exited
:	2						•••		Sponsor funds
:	2						•••		Sponsor firms
٠.									Age at financing
٠.									Business description
	•								Industry
									Funding amount
i	N								company-level
	N			•••			•••		performance metrics:
	N								Money multiples, PME

Descriptive statistics

Figure 1: Private Equity Fundraising and Investing by Investment Direction. The plot shows our aggregated database figures for raised and deployed capital by investment direction: *DMtoDM* denotes investments by DM-based GPs in developed markets, *DMtoEM* investments by DM-based GPs in emerging markets, *EMtoEM* investment by EM-based GPs in developed markets.





Average and median returns

Panel A: Deal-level PMEs, by Investment Style, Investment Direction and Deal Direction

		DMtoDM	DMtoD	M&EM	EMtoEM		Total	
			DMtoDM	DM to EM		DMtoDM	DMtoEM	EMtoEM
D4	Mean	4.63	6.50	4.47	3.67	5.30	4.47	3.67
Buyout	Median	4.00	7.22	4.27	3.77	5.68	4.27	3.77
Vantara Canital	Mean	5.22	5.28	4.73	4.97	5.24	4.73	4.97
Venture Capital	Median	5.36	4.96	4.77	4.90	5.26	4.77	4.90

Panel B: Value Multiples by Investment Style, Investment Direction and Deal Direction

		DMtoDM	DMtoD	M&EM	EMtoEM		Total	
Style			DMtoDM	DMtoEM		DMtoDM	DMtoEM	EMtoEM
Durant	Mean	2.14	2.70	2.65	1.59	2.43	2.65	1.59
Buyout	Median	1.62	2.10	2.33	0.95	1.88	2.33	0.95
Wantana Canital	Mean	3.51	4.06	3.24	3.07	3.79	3.24	3.07
Venture Capital	Median	2.93	3.58	2.30	2.82	3.48	2.30	2.82

Panel C: Exit Rates by Investment Style, Investment Direction and Deal Direction

		DMtoDM	DMtoD	M&EM	EMtoEM		Total	
Style			DMtoDM	DM to EM		DMtoDM	DM to EM	EMtoEM
D4	Mean	0.30	0.36	0.30	0.13	0.33	0.30	0.13
Buyout	Median	0.29	0.36	0.31	0.11	0.33	0.31	0.11
Want on Canital	Mean	0.51	0.56	0.39	0.20	0.53	0.39	0.20
Venture Capital	Median	0.57	0.60	0.39	0.17	0.58	0.39	0.17

Investment and holding periods

Panel A: Investment Periods by Investment Style, Investment Direction and Deal Direction - in years

		DMtoDM	DMtoD	M&EM	EMtoEM		Total	
Style			DMtoDM	DMtoEM		DMtoDM	DMtoEM	EMtoEM
Davions	Mean	7.36	9.24	8.03	6.29	8.27	8.03	6.29
Buyout	Median	4.00	4.00		2.92	4.00	3.04	2.92
Wantana Canital	Mean	6.51	8.03	8.72	5.85	7.26	8.72	5.85
Venture Capital	Median	4.25	4.50	4.17	3.05	4.39	4.17	3.05

Panel B: Holding Periods by Investment Style, Investment Direction and Deal Direction - in years

		DMtoDM	DMtoD	M&EM	EMtoEM		Total	
Style			DMtoDM	DMtoEM		DMtoDM	DMtoEM	EMtoEM
D 4	Mean	5.78	6.11	5.40	4.11	5.94	5.40	4.11
Buyout	Median	5.10	5.40	5.10	3.80	5.20	5.10	3.80
Venture Conital	Mean	6.64	6.56	5.89	4.44	6.60	5.89	4.44
Venture Capital	Median	6.00	6.00	5.35	3.90	6.00	5.35	3.90

Exit strategies

	DMtoDM	DMtoD	M&EM	EMtoEM		Total	
		DMtoDM	DMtoEM		DMtoDM	DMtoEM	EMtoEM
Buyback	0.01	0.00	0.01	0.01	0.00	0.01	0.01
IPO	0.26	0.31	0.41	0.49	0.29	0.41	0.49
Reverse Takeover	0.01	0.01	0.00	0.02	0.01	0.00	0.02
Secondary Sale	0.06	0.05	0.10	0.06	0.06	0.10	0.06
Trade Sale	0.62	0.57	0.46	0.41	0.59	0.46	0.41
Write Off	0.05	0.05	0.01	0.01	0.05	0.01	0.01

Average Fund and portfolio sizes

		DMtoDM	DMtoD	M&EM	EMtoEM		Total	
			DMtoDM	DMtoEM		DMtoDM	DMtoEM	EMtoEM
	Fund Size (USDm)	419.25	1,143.37	1,043.03	301.07	787.14	1,043.03	301.07
Buyout	Portfolio Size (#)	61.44	111.04	69.97	49.71	85.48	69.97	49.71
	Age at financing (years)	20.66	18.76	16.66	21.84	19.73	16.66	21.84
	Fund Size (USDm)	99.32	294.20	443.67	72.01	197.23	443.67	72.01
Venture	Portfolio Size (#)	216.88	292.79	431.01	240.60	254.17	431.01	240.60
Capital	Age at financing (years)	6.13	5.59	9.15	8.09	5.86	9.15	8.09

Specification

A multilevel linear model

$$y_{ijkt} = \alpha_{jk} + x_{it} \beta + \epsilon_{ijkt}$$
$$\alpha_{jk} = \nu_k + w_j \gamma + u_{jk}$$
$$\nu_k = z_k \gamma + \eta_k$$

Where:

- y_{ijkt} is the deal-level performance measure of GP *i* in country *j* and company *k* at time *t*
- x_{it} is a vector of GP-level characteristics
- α_{ik} is a country-level intercept term
- w_j is a vector of country-level characteristics including distance measures (and whether it is an EM for DMtoDM&EM subgroup)
- v_k is a company-level intercept term
- z_k is a vector if company characteristics

Specification – continued

Motivations for using a HLM

- 1 Account for country and company differences within the studied groups
- 2 Correct for distortion introduced by varying sample sizes across levels
- 3 Incorporate clean cross-level interactions
- 4 Correct for distortion in standard errors due to within-country clustering

Results – Random effects ANOVA estimation

What portion of the variance in returns is due to cross-country differences, individual GP differences and deal characteristics?

% explained variance in returns

	DMtoDM			Γ	MtoDM&F	EM	EM to EM		
	GP	Country	Company	GP	Country	Company	GP	Country	Company
Exit Rate	17%	19%	64%	9%	23%	67%	1%	72%	27%
Value Return	43%	9%	48%	30%	19%	51%	8%	29%	63%
Deal-level PME	9%	11%	80%	1%	13%	86%	6%	16%	78%

Results – HLM estimation (1/3)

	DMtoDM		DMtoDM&EM		EMtoEM
GP level		Overall	DMtoDM	DMtoEM	
Size	0.244*	0.0648	0.0478	0.107	-0.117
	(2.11)	(0.83)	(0.60)	(0.49)	(-1.87)
Local Affiliation	-1.511***	-1.525***	-1.555***	-0.129	-0.901***
	(-4.16)	(-5.21)	(-5.23)	(-0.14)	(-4.50)
GP Direct Investment	-0.716	-0.584	-0.604	1.439	0.274
	(-0.68)	(-0.72)	(-0.73)	(0.92)	(0.69)
Co-investment	-0.328	-0.461	-0.486	1.322	0.534
	(-0.32)	(-0.56)	(-0.58)	(0.83)	(1.38)
Pre-EM Experience		-0.000153	-0.0000166	1.057	
		(-0.58)	(-0.06)	(0.50)	
Time to Exit	-0.483***	-0.305***	-0.298***	-0.165	-0.0317
	(-5.95)	(-4.32)	(-4.06)	(-1.09)	(-0.82)
Time to Invest	0.165***	0.140***	0.142***	-0.00550	-0.0268*
	(7.16)	(8.04)	(8.05)	(-0.12)	(-2.43)

Results – HLM estimation (2/3)

	DMtoDM		DMtoDM&EM		EMtoEM
Country level		Overall	DMtoDM	DMtoEM	
Capital Inflow	0.226	-0.657***	-0.696***	0.717*	0.262*
	(1.48)	(-5.19)	(-5.39)	(2.18)	(2.54)
Nearby	1.076	4.151***	4.421***	1.761	-1.968
	(0.69)	(3.91)	(4.06)	(0.50)	(-1.51)
Distant	0.694	2.111**	2.280**	-0.331	0.0200
	(0.78)	(2.97)	(3.03)	(-0.31)	(0.02)
Embeddedness distance	2.584	4.452	5.418	-0.0879	0.368
	(0.38)	(1.48)	(1.12)	(-0.04)	(0.35)
Hierarchy Distance	-1.780	-2.693***	-3.015*	3.461	1.295**
	(-1.06)	(-3.33)	(-2.47)	(1.00)	(2.89)
Mastery Distance	-0.472	1.174	1.129	-3.614	-0.550
	(-0.07)	(0.41)	(0.24)	(-0.54)	(-0.51)
Int. Autonomy Distance	-1.839	-1.989	-2.447	-2.296	0.713
	(-0.74)	(-1.54)	(-1.58)	(-0.87)	(0.64)

Results – HLM estimation (3/3)

	DMtoDM		DMtoDM&EM		EMtoEM
Company level		Overall	DMtoDM	DM to EM	
First Time Investment	-0.829**	-0.802**	-0.812**	-0.0743	0.269
	(-2.64)	(-2.68)	(-2.67)	(-0.08)	(1.46)
VC Dummy	0.484	-0.795*	-0.834*	-0.240	-0.0133
	(0.97)	(-2.10)	(-2.15)	(-0.29)	(-0.05)
Age	0.0895***	0.149***	0.157***	-0.0194	0.0116
	(3.95)	(7.55)	(7.69)	(-0.43)	(1.03)
Invested Capital	-1.076***	-1.201***	-1.297***	-1.005*	-0.189
	(-4.46)	(-5.34)	(-5.54)	(-2.36)	(-1.74)
Deal Sequence	-0.0150***	0.000706	0.000503	0.00346***	0.00611***
	(-7.99)	(1.67)	(1.14)	(4.35)	(5.22)
Club Deal Dummy	2.169	2.717*	3.102*	1.489	0.648*
	(1.69)	(2.35)	(2.53)	(0.92)	(2.01)
Intercept	Yes	Yes	Yes	Yes	Yes
Inv. year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
# Countries	26	47	25	22	20
# Companies	9 677	9 885	9 437	448	687
# Obs.	44 351	53 578	52 523	1 055	1 353

Geographical and cultural interaction

How does performance behave with *geographically close* (resp. *distant*) but *culturally distant* (resp. *close*) investments?

Geographical and cultural cross-level effects (1/2)

	DMtoDM		DMtoDM&EM		EMtoEM
		Overall	DMtoDM	DMtoEM	
GP level	Yes	Yes	Yes	Yes	Yes
Country level	Yes	Yes	Yes	Yes	Yes
Cross-level interactions (1)					
Nearby x HH GP Geo Low	0.58	1.42	-0.26	-0.68*	-1.02*
	(1.22)	(0.89)	(-0.68)	(-1.99)	(-2.20)
Nearby x HH GP Geo High	0.49	0.94**	0.48	1.59**	1.03**
	(0.56)	(2.83)	(1.04)	(2.53)	(2.82)
Distant x HH GP Geo Low	0.78*	1.02**	0.52**	0.84	0.74
	(2.03)	(2.65)	(2.81)	(0.21)	(0.08)
Distant x HH GP Geo High	-0.54*	0.24	-0.65	-0.52*	-0.41
	(-2.33)	(1.23)	(-0.01)	(-2.37)	(-0.89)
Company Characteristics	Yes	Yes	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes
Investment year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Number of Countries	26	47	25	22	20
Number of Companies	9 677	9 885	9 437	448	687
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Geographical and cultural cross-level effects (2/2)

	DMtoDM	DMtoDM&EM			EMtoEM	
		Overall	DMtoDM	DMtoEM		
GP level	Yes	Yes	Yes	Yes	Yes	
Country level	Yes	Yes	Yes	Yes	Yes	
Cross-level interactions (2)						
Nearby x Lang. Speakers Dummy	-1.367	1.02*	-0.071	1.56***	1.20**	
, , , , , , , , , , , , , , , , , , , ,	(-1.72)	(2.02)	(-0.01)	(4.86)	(2.79)	
Distant x Lang. Speakers Dummy	-0.091	0.31*	0.305	1.183	0.43**	
,	(-1.37)	(2.36)	(0.33)	(1.13)	(2.52)	
Nearby x Lang. Speakers	-0.017	2.03*	2.01***	1.06***	1.08**	
	(-0.15)	(2.49)	(6.23)	(5.21)	(2.67)	
Distant x Lang. Speakers	-0.027	1.02*	1.24***	0.98***	1.02**	
	(-0.35)	(2.39)	(5.37)	(4.03)	(2.68)	
Nearby x HH Lang. Speakers	-1.01	1.85***	1.74***	1.86***	2.65***	
	(-1.84)	(3.44)	(3.90)	(7.40)	(4.16)	
Distant x HH Lang. Speakers	-1.06	1.52***	2.05**	1.41***	1.35***	
	(-0.49)	(3.06)	(2.39)	(6.66)	(3.06)	
Company Characteristics	Yes	Yes	Yes	Yes	Yes	
Intercept	Yes	Yes	Yes	Yes	Yes	
Investment year FE	Yes	Yes	Yes	Yes	Yes	
Industry FE	Yes	Yes	Yes	Yes	Yes	
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Nearby x Lang. Speakers Dummy	-1.367	1.02*	-0.071	1.56***	1.20**
	(-1.72)	(2.02)	(-0.01)	(4.86)	(2.79)
Distant x Lang. Speakers Dummy	-0.091	0.31*	0.305	1.183	0.43**
	(-1.37)	(2.36)	(0.33)	(1.13)	(2.52)
Nearby x Lang. Speakers	-0.017	2.03*	2.01***	1.06***	1.08**
	(-0.15)	(2.49)	(6.23)	(5.21)	(2.67)
Distant x Lang. Speakers	-0.027	1.02*	1.24***	0.98***	1.02**
	(-0.35)	(2.39)	(5.37)	(4.03)	(2.68)
Nearby x HH Lang. Speakers	-1.01	1.85***	1.74***	1.86***	2.65***
	(-1.84)	(3.44)	(3.90)	(7.40)	(4.16)
Distant x HH Lang. Speakers	-1.06	1.52***	2.05**	1.41***	1.35***
	(-0.49)	(3.06)	(2.39)	(6.66)	(3.06)
Company Characteristics	Yes	Yes	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes
Investment year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Number of Countries	26	47	25	22	20
Number of Companies	9 677	9 885	9 437	448	687
Number of observations	44 351	53 578	52 523	1 055	1 353

Is there *predictability* in EM returns?

Return predictability

	DMtoDM	DMtoDM&EM			EMtoEM
		Overall DMtoDM		DMtoEM	
Lagged Deal-level PME	0.575***	0.551***	0.551***	0.249***	0.755***
GP Characteristics	Yes	Yes	Yes	Yes	Yes
Country Characteristics	Yes	Yes	Yes	Yes	Yes
Company Characteristics	Yes	Yes	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes
Investment year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Number of Countries	25	47	25	22	20
Number of Companies	9 268	9 665	9 243	422	601
Number of observations	18 994	25 357	23 179	30 399	23 067

Robustness checks

- Cyclicality
- Style Drift
- Correction for deal sequences
- ▶ Alternative return measures (exit rate and value multiples)

Takeaways

- ► Evidence supporting the *money chasing deals* hypothesis in DM (reversed in EM).
- ► Geographical and cultural distances have both individual and joint effects on performance.
- ➤ Success of follow-on deals in EM is highly dependant on success of previous deals.