CEO-Firm Matching and Productivity in 42 Countries

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CEO-firm matching and development

Firm productivity is key for development; we need to understand how capital and labor are allocated - including CEOs

Evidence from high income countries suggests that:

- CEOs can affect productivity (Bertrand and Schoar 2003, Adams et al. 2005, Bennedsen et al. 2020, Otero and Muñoz, 2022)
- CEO behavior that maximizes performance is firm specific (Bandiera et al., 2020)

Data challenges make it hard to study matching frictions

This paper

We study matching frictions in the match of CEOs to firms in **42 countries** across different stages of development

Research questions:

1. What are the potential productivity gains to improving CEO-firm matching?
2. Is a certain type of CEO behavior best for all firms, or is the best CEO behavior firm-specific?
3. What are the mechanisms through which matching affects performance?
4. Why does matching vary across firms (and countries)?

Leaders and managers

Kotter (1990) emphasizes a behavioral distinction between **"Managers"** and **"Leaders"**

- Management involves monitoring and implementing tasks, i.e. "setting up systems to ensure that plans are implemented precisely and efficiently"
- Leadership aims primarily at the creation of organizational alignment, and involves significant investments in interpersonal communication

Measuring differentiation across CEOs

Indirect approach: CEO fixed effects (Bertrand and Schoar, 2003; Otero and Muñoz, 2022)

- Differentiation in managerial quality inferred from firm performance
- Differences "portable" across firms, regardless of firm characteristics

Direct approach: CEO behavior (Bandiera et al., 2020)

- Differences derived from time use measured through extensive diary collection
- Scaling of small-scale shadowing approaches (Mintzberg, 1973)
- Evidence of two behavioural types: **"Managers"** and **"Leaders"** (using machine learning)
- CEO leader behavior matters for firm productivity; suggest existence of matching frictions

Our contribution

1. Build a parsimonious CEO behavior index that can be easily implemented at low cost across many countries
2. Estimate firms' needs for CEO types $\rightarrow$ mismatch between optimal and actual CEO types
3. Illustrate the role of local labor and education markets and firm characteristics in the mismatch between firms and CEO types
   - Role of business / management education: Acemoglu, He and le Maire (2022) vs. Otero and Muñoz (2022)

Data sources

EBRD-EIB-WB Enterprise Surveys (*Survey data*):

- Unique face-to-face surveys with firm managers, using stratified random sampling, 5+ employees
- 42 economies in Europe, Central Asia and Middle East and North Africa, 2018-2020
- Information on firms' characteristics and performance, CEO time use (for firms with at least 50 employees) and GPS coordinates
- We focus on manufacturing firms (in line with the *Diary data*)

Data from Bandiera et al. (2020) (*Diary data*) on USA, UK, Germany, and France

Data on higher education institutions from the International Association of Universities (IAU)'s World Higher Education Database (WHED) and business school accreditation data from AACSB, AMBA, and EQUIS, augmented by manual data collection and checks

CEO time use questions in the Survey data

Meetings in a typical week...

- Q1 **High-level:** How often does the top manager meet with one or more of the following: Chief Operating Officer (COO), Chief Administrative Officer (CAO), Chief Marketing Officer (CMO), Board members, Business Unit managers, or managers from a parent company?[1]
- Q2 **Multi stakeholder:** How many meetings that involve the top manager include more than one other participant?[2]
- Q3 **Suppliers:** How often does the top manager meet with suppliers?
- Q4 **Production:** How often does the top manager meet with employees involved in production activities (e.g. plant managers, front line production workers)?

[1] Answer options Q1,3,4: Never, Once a week, 2-4 times a week, Daily, More than once a day

[2] Answer options Q2: Fewer than 5, 5-10, 11-15, 16-20, More than 20.

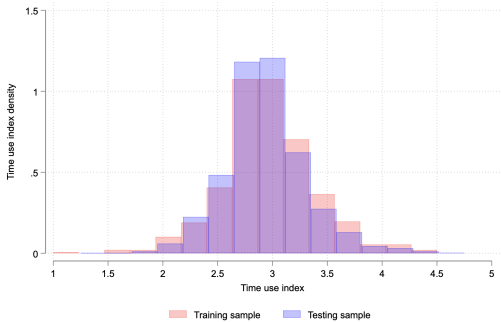
CEO time use index and binary leader variable

- We reverse the scale for Q3 and Q4 (meetings with suppliers and production/sales employees), as these characterize manager type (Bandiera et al., 2020)
- Create an overall CEO time use index as a mean of the questions' answers
- To study matching, we create a binary leader variable: classify CEOs with an index above 3 (the realized median, the theoretical midpoint, and close to the realized mean of 2.93) as a leader
- Create the same continuous and binary variables using the Diary data

▸ Alternative index using z-scores

CEO time use index in the Training and Testing datasets

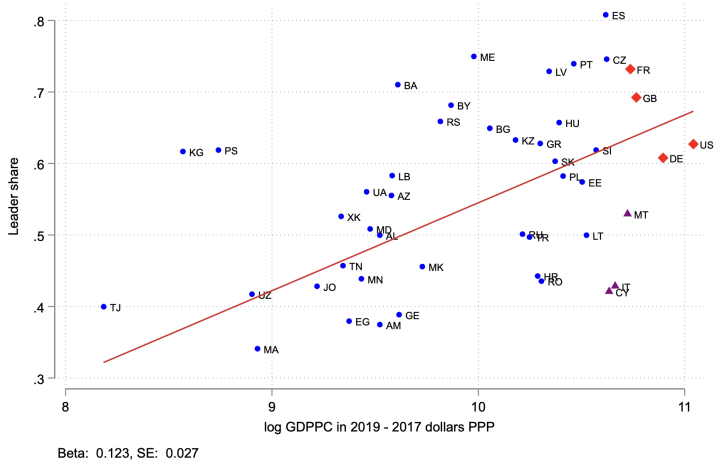
Training sample: Diary data (US, UK, France, Germany) + Italy, Cyprus and Malta (richest countries)
Testing sample: the rest of the countries in the Survey data.



▸ Summary statistics

	CEO time use type				
	Manager		Leader		Total
Sample	No.	%	No.	%	No.
Diary data	134	33.9	261	66.1	395
Survey data	2,174	46.3	2,518	53.7	4,692
Training sample	269	42.4	365	57.6	634
Testing sample	2,039	45.8	2,414	54.2	4,453
Total	2,308	45.4	2,779	54.6	5,087

Leader share increases with country income



Notes: Red - Diary data and Training sample, purple - Survey data and Training sample, blue - Survey data and Testing sample.

▸ Leader type and firm performance ▸ Bandiera et al. 2020 replication

Prediction approach

Let LASSO select the variables and their interactions to be included among all the variables that exist in *both* the Diary and the Survey data. These are:

- Employment
- Listed firm
- Family-owned firm
- Firm age
- Industry dummies

We combine these variables as:

$$Industry_i + Listed_i * Family\,Owned_i * Log(employment_i) * FirmAge_i$$

and predict with probit using the Training sample, and apply the prediction to the Testing sample. Prediction cells

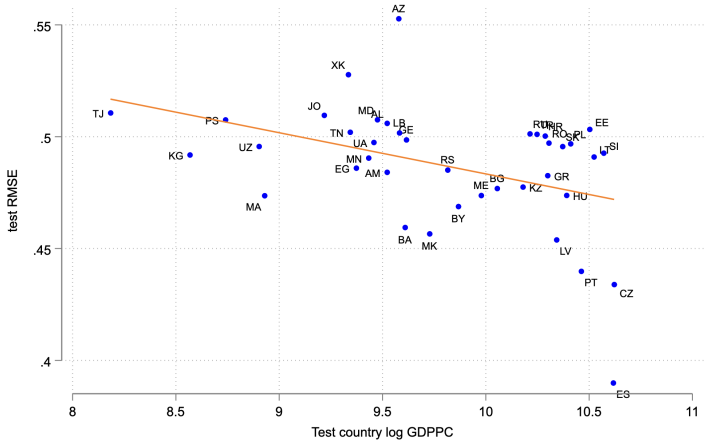
In rich countries, which firms are more likely to have leaders?

Dependent variable →	Leader status
Manufacturing of food products and beverages	-0.066
	(0.051)
Manufacture of textiles	-0.238
	(0.147)
Manufacture of rubber and plastics products	0.171*
	(0.099)
Manufacture of office, accounting and computing machinery	0.144**
	(0.059)
Non-listed firm	-0.129**
	(0.064)
Family-owned firm	-0.132***
	(0.035)
Log (employment)	0.065***
	(0.017)
Observations	634
Pseudo R^2	0.079

Notes: Training sample. Probit average marginal effects. Robust standard errors in parentheses. Selected variables shown.

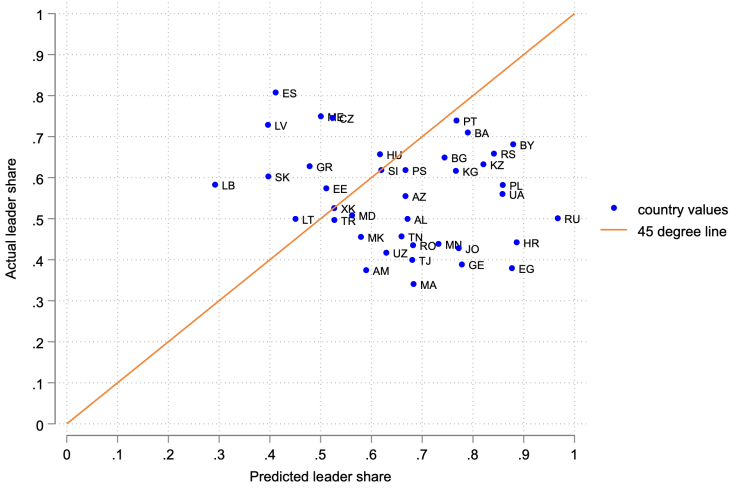
The prediction does better in higher-income countries in the testing sample

– Confirming that lower-income countries' matching quality is further from rich countries



Beta: -0.020, SE: 0.008

Most countries have a lower leader share than predicted (supply of leaders too low)...



. . . However, there is also a mismatch between firms and CEO types within countries

- Using LASSO, we predict which type of CEO each firm should have in our Testing sample
- If a deviation from the predicted ideal CEO type captures something sub-optimal, we would expect this to be reflected in firm-level outcomes

$$Y_i = \beta_0 + \beta_1 Mismatched_i + \zeta_c + \epsilon_i,$$

$$Y_i = \beta_0 + \beta_{LM} NeedsLGetsM_i + \beta_{ML} NeedsMGetsL_i + \beta_{MM} NeedsMGetsM_i + \zeta_c + \epsilon_i,$$

i	Firm
Y	Firm-level outcomes (labor productivity, formal written business strategy, innovation)
Mismatched	Indicator equal to 1 if the CEO type and the firm are mismatched; 0 otherwise
NeedsLGetsM	Indicator equal to 1 if the firms needs a leader, but gets a manager; 0 otherwise
NeedsMGetsL	Indicator equal to 1 if the firms needs a manager, but gets a leader; 0 otherwise
NeedsMGetsM	Indicator equal to 1 if the firms needs & gets a manager CEO; 0 otherwise
ζ_c	Country fixed effects

Main result: Firms that are matched according to prediction are more productive & matching matters

Dependent variable →	Log (labor productivity)	
	(1)	(2)
Mismatched	-0.166***	
	(0.039)	
Needs Leader, Gets Manager		-0.203***
		(0.049)
Needs Manager, Gets Leader		-0.144***
		(0.055)
Needs Manager, Gets Manager		-0.064
		(0.065)
$\beta_{LM} - \beta_{ML} = 0$ (p-value)		0.290
Country FE	YES	YES
Observations	4,453	4,453
R^2	0.343	0.343

Notes: Estimated using OLS. Bootstrapped standard errors in parentheses.

Evidence of **horizontal** differentiation: some firms do better with manager CEOs and others with leader CEOs

Back of the envelope calculation suggests 9% loss in revenue across the full sample ▸ Details

Mechanisms for CEO match affecting productivity

Dependent variable →	Have formalized, written business strategy		Main product's share		Product innovation		Process innovation	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mismatched	-0.058***		-0.003		-0.008		0.008	
	(0.014)		(0.005)		(0.013)		(0.011)	
	[0.000]		[1.000]		[1.000]		[1.000]	
Needs Leader, Gets Manager		-0.064**		0.005		-0.045***		-0.025*
		(0.016)		(0.006)		(0.016)		(0.014)
		[0.001]		[1.000]		[0.038]		[0.423]
Needs Manager, Gets Leader		-0.122***		-0.014*		0.017		0.049**
		(0.021)		(0.008)		(0.021)		(0.019)
		[0.000]		[0.423]		[1.000]		[0.036]
Needs Manager, Gets Manager		-0.099***		0.006		-0.058***		-0.026
		(0.024)		(0.008)		(0.021)		(0.020)
		[0.000]		[1.000]		[0.054]		[0.635]
$\beta_{LM} - \beta_{ML} = 0$ (p-value)		0.007		0.020		0.002		0.000
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Observations	4,453	4,453	4,453	4,453	4,453	4,453	4,453	4,453
R^2	0.088	0.093	0.056	0.057	0.174	0.177	0.170	0.173

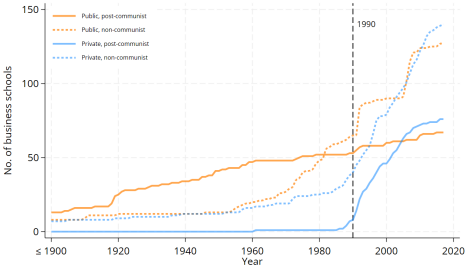
Notes: Estimated using linear probability model. Bootstrapped standard errors in parentheses. The square brackets contain p-values under Bonferroni-Holm multiple hypothesis testing.

Role of business / management schools

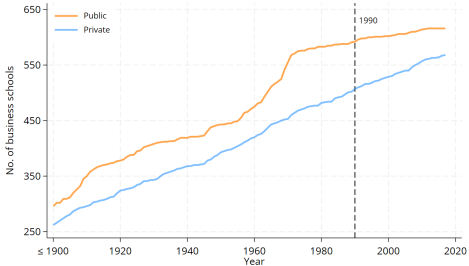
- Business schools improve networking, e.g. through employer events?
- Business training increasing leader skills/leader supply?

Fast growth of private business schools in ex-communist countries after 1990

Testing sample



Training sample



▸ Construction of education variables ▸ Descriptive stats - HEI ▸ Descriptive stats - business schools

Market and firm-level mismatch predictors: Empirical approach

$$Mismatched_i^* = \gamma_0 + \gamma_{\mathbf{E}}{}' \mathbf{E_i} + \gamma_{\mathbf{L}}{}' \mathbf{L_i} + \gamma_{\mathbf{F}}{}' \mathbf{X_i} + \zeta_c + \epsilon_i, \text{ with } Mismatched_i = \mathbb{1}_{Mismatched_i^* > 0}$$

i	Firm
Mismatched	Indicator equal to 1 if the CEO type and the firm are mismatched; 0 otherwise
E	Local education market characteristics (business schools vs other higher education institutions)
L	Local labor market size proxies → "thickness" of local markets for leaders and managers (capital/main business city, size of the locality where the firm is located)
X	Firm-level characteristics (exporter/importer status, foreign ownership, sole proprietorship, board of directors/supervisory board presence, credit constraints)
ζ_c	Country fixed effects

Results:

- Larger local labor market negatively correlated with the probability of *Needs Leader, Gets Manager*
- Foreign-ownership, exporter/importer status and having a board of directors or a supervisory board negatively correlated with the probability of *Mismatched*
- Sole proprietorship positively correlated with both the probability of *Needs Leader, Gets Manager* and *Mismatched*

Market and firm-level mismatch predictors

Dependent variable →	Mismatched			Needs Leader, Gets Manager		
	(1)	(2)	(3)	(4)	(5)	(6)
Local education market						
Minimum distance from business school	0.012 (0.008)			0.020** (0.008)		
Minimum distance from pre-1990 business school		0.070* (0.041)			0.090*** (0.034)	
Minimum distance from post-1990 business school		-0.015 (0.013)			-0.015 (0.012)	
Minimum distance from public business school			0.077* (0.048)			0.118*** (0.042)
Minimum distance from private business school			-0.018 (0.013)			-0.021* (0.012)
Minimum distance from other higher education institutions	0.002 (0.008)	0.003 (0.008)	0.003 (0.008)	-0.001 (0.008)	-0.000 (0.007)	0.001 (0.007)
Local labor market size proxies	YES	YES	YES	YES	YES	YES
Firm-level characteristics	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES
Observations	4,450	4,450	4,450	4,450	4,450	4,450
Pseudo R^2	0.028	0.028	0.028	0.095	0.095	0.095

Notes: Average marginal effects based on probit regressions which also include local labor market proxies (capital/main business city, size of the locality where the firm is located) and firm-level characteristics (exporter/importer status, foreign ownership, sole proprietorship, board of directors/supervisory board presence, credit constraints). Bootstrapped standard errors in parentheses.

Robustness

We do similar analysis at the country level ▸ Country results

The results are robust to various alternative choices in the construction of the time use variables and prediction:

- Time use index based on z-score standardization ▸ Definition
- Alternative prediction strategies: ▸ Results
  - Five-wise interaction of predictor variables
  - Post-selection prediction
  - Discretizing the 'Needs Leader' variable at alternative thresholds

Conclusions

- Asking only a handful of questions can identify CEO behavioral type almost as well as the full calendar shadowing, at a fraction of the cost
- Some firms do better with manager CEOs and others with leader CEOs $\rightarrow$ Evidence of horizontal differentiation
- Mismatch is associated with labor productivity loss of up to 20% for individual firms
- *Mismatched* probability:
  - Negative correlation: larger local labor market, foreign-ownership, exporter/importer status and having a board of directors or a supervisory board
  - Positive correlation: Minimum distance from pre-1990 business school (or public business school), Sole proprietorship

Thank you! Feedback welcome!

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Appendix

Appendix: CEO time use index using z-score standardization

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- We reverse the scale for q3 and q4 (meetings with suppliers and production/sales employees), as these characterize manager type (Bandiera et al. 2020)
- Normalize the scores for each question
- Create an continuous CEO time use index as a sum of the z-scores for individual questions and standardize the sum
- Create a binary leader variable: classify CEOs with CEO time use index above 0 (the mean in the pooled sample, which is the 46th percentile) as a leader

This procedure leads to a binary dummy variable which is essentially identical to our alternative construction.

Appendix: Summary statistics I

Country	ISO 2 code	Observations	Diary sample	Training sample	GDP per capita	Ease of doing business index	Corruption perception index
United States	US	118	1	1	62,459	84	67
Germany	DE	102	1	1	53,930	80	80
United Kingdom	GB	78	1	1	47,369	84	78
France	FR	97	1	1	46,018	77	71
Malta	MT	17	0	1	45,397	66	54
Italy	IT	203	0	1	42,746	73	56
Cyprus	CY	19	0	1	41,522	73	53
Czech Republic	CZ	136	0	0	40,981	76	54
Spain	ES	219	0	0	40,802	78	61
Slovenia	SI	65	0	0	38,947	77	57
Lithuania	LT	61	0	0	37,166	82	61
Estonia	EE	49	0	0	36,401	81	74
Portugal	PT	220	0	0	34,946	76	62
Poland	PL	130	0	0	33,185	76	56
Hungary	HU	146	0	0	32,554	73	43
Slovak Republic	SK	59	0	0	31,928	76	52
Latvia	LV	54	0	0	31,012	80	59
Romania	RO	179	0	0	29,875	73	45
Greece	GR	113	0	0	29,698	68	49
Croatia	HR	71	0	0	29,336	74	47
Türkıye	TR	376	0	0	28,197	77	38
Russia	RU	329	0	0	27,255	78	29
Kazakhstan	KZ	140	0	0	26,352	80	37
Bulgaria	BG	117	0	0	23,266	72	42
Montenegro	ME	12	0	0	21,534	74	46

Note: GDP per capita refers to the year 2019 GDP per capita and is expressed in 2017 billion USD terms.

Appendix: Summary statistics II

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Country	ISO 2 code	Observations	Diary sample	Training sample	GDP per capita	Ease of doing business index	Corruption perception index
Belarus	BY	132	0	0	19,279	74	41
Serbia	RS	44	0	0	18,307	76	38
North Macedonia	MK	59	0	0	16,773	81	39
Georgia	GE	36	0	0	14,989	84	55
Bosnia and Herzegovina	BA	38	0	0	14,897	65	35
Lebanon	LB	48	0	0	14,493	54	24
Azerbaijan	AZ	9	0	0	14,442	79	30
Armenia	AM	56	0	0	13,654	74	49
Albania	AL	82	0	0	13,653	68	35
Moldova	MD	57	0	0	13,027	74	36
Ukraine	UA	240	0	0	12,805	70	32
Mongolia	MN	41	0	0	12,486	68	35
Egypt	EG	566	0	0	11,763	60	33
Tunisia	TN	129	0	0	11,421	69	44
Kosovo	XK	19	0	0	11,318	73	39
Jordan	JO	35	0	0	10,071	69	49
Morocco	MA	127	0	0	7,547	73	39
Uzbekistan	UZ	196	0	0	7,348	70	28
West Bank and Gaza	PS	21	0	0	6,245		
Kyrgyz Republic	KG	47	0	0	5,258	68	27
Tajikistan	TJ	26	0	0	3,581	61	25

Note: GDP per capita refers to the year 2019 GDP per capita and is expressed in 2017 billion USD terms.

Appendix: Leader type is correlated with higher firm performance within countries

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Dependent variable →	Log (employment)		Log (sales)		Log (labor productivity)	
	(1)	(2)	(3)	(4)	(5)	(6)
Leader	0.175***	0.156***	0.298***	0.264***	0.123***	0.108***
	(0.027)	(0.026)	(0.047)	(0.046)	(0.039)	(0.038)
Leader * Training Sample	0.171*	0.116	0.087	0.036	-0.083	-0.080
	(0.087)	(0.084)	(0.122)	(0.118)	(0.082)	(0.081)
Listed firm	NO	YES	NO	YES	NO	YES
Family-owned firm	NO	YES	NO	YES	NO	YES
Firm age	NO	YES	NO	YES	NO	YES
Country FE	YES	YES	YES	YES	YES	YES
Industry FE	NO	YES	NO	YES	NO	YES
Observations	5,087	5,087	5,087	5,087	5,087	5,087
R^2	0.078	0.156	0.497	0.537	0.651	0.675

Note: Estimated using OLS. Robust standard errors in parentheses. Sales are in 2019 USD.

Also holds for the continuous index: Bandiera et al. 2020 replication

Appendix: Replication of Bandiera et al. (2020)

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Dependent variable →	Log (operating revenue)				Log (operating revenue / employment)
	(1)	(2)	(3)	(4)	(5)
Time use index	0.190**	0.123*	0.056**	0.168**	0.171**
	(0.062)	(0.062)	(0.019)	(0.058)	(0.062)
Log employment	1.068***	1.028***	0.511***	1.053***	0.078**
	(0.031)	(0.045)	(0.017)	(0.031)	(0.033)
Log capital		0.093***	0.048***		
		(0.019)	(0.012)		
Log material costs			0.429***		
			(0.028)		
Management index				0.112***	
				(0.019)	
Country FE	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES
Observations	2,272	1,677	1,155	2,272	2,251
Pseudo R^2	0.726	0.733	0.888	0.729	0.482

Note: Estimated using OLS. Robust standard errors in parentheses.

Appendix: Observations in prediction cells

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		Family-owned	Not Family-owned
Training sample	Listed	16	63
	Not Listed	293	262
Testing sample	Listed	215	431
	Not Listed	1,581	2,226

	Training sample	Testing sample
Manufacturing of food products and beverages	104	1,014
Manufacture of textiles	11	287
Manufacture of wearing apparel	13	584
Manufacture of wood and of products of wood	77	237
Manufacture of chemicals and chemical products	40	226
Manufacture of rubber and plastics products	26	239
Manufacture of other non-metallic mineral products	22	347
Manufacture of fabricated metal products	118	572
Manufacture of machinery and equipment	102	435
Manufacture of office, accounting and computing machinery	92	351
Manufacture of furniture; manufacturing n.e.c.	29	161

Appendix: Revenue loss calculation

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We calculate this through the following formula for counterfactual revenue (TR^C) in the sample:

$$TR^C = TR_{LL} + TR_{MM} + TR_{LM}/(1+\hat{\beta}_{LM}) + TR_{ML} * (1+\hat{\beta}_{MM})/(1+\hat{\beta}_{ML})$$

with $TR_{x,y}$ = Total Revenue of all firms with a particular CEO-firm combination, x = needed CEO type, y =actual CEO type

- $\hat{\beta}$s are estimates from the previous slide

This calculation uses the estimated percentage change effects from column 3 to change (L, M) and (M, L) firms' revenues to what would have been observed if they were (L, L) and (M, M) firms, respectively.

Total revenues and firm numbers belonging to each group:

	Needed CEO type			
	Leader		Manager	
Actual CEO type	Count	Revenue	Count	Revenue
Leader	1,655	64,963	759	10,143
Manager	1,438	31,206	601	7,893

Appendix: Education market variables

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1. Scrape the World Higher Education Database (WHED) database for all countries in our sample and extract information on higher education institution (HEI) characteristics (divisions, degrees offered, fields of study, year founded)[3]
2. Scrape business school accreditation data from AACSB, AMBA, and EQUIS membership websites
3. Identify business schools:
   - Any HEI with a business/management school or college of business/management within their divisions
   - Any HEI whose name includes specific word combinations such as School of Business, Business School, School of Management, and Management School
   - Any HEI in AACSB, AMBA or EQUIS databases[4]
4. Total HEI: number of institutions listed in WHED, AACSB, AMBA, or EQUIS databases
5. Verify with EBRD regional economists and analysts that there are no major omissions and update counts where necessary

[3] We collect data for Kosovo from the Kosovo Accreditation Agency.

[4] If not found in WHED, we add these HEI to the overall database and treat them as business schools.

Appendix: HEI per capita

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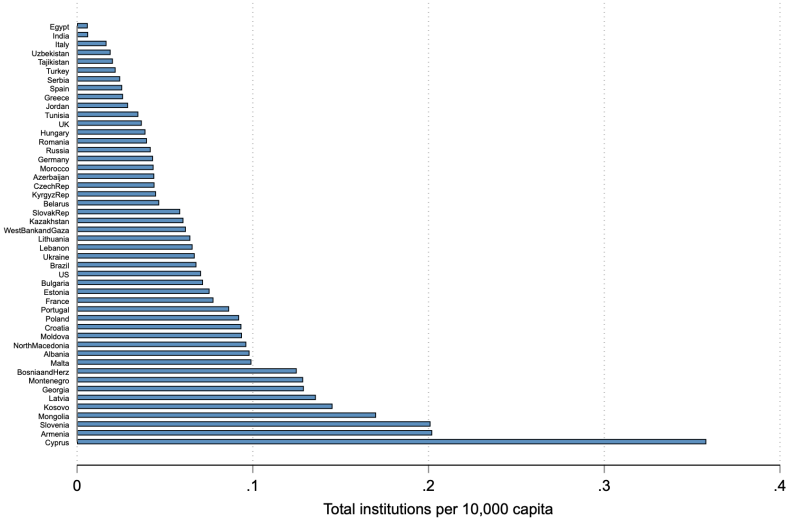

Appendix: Business schools per capita

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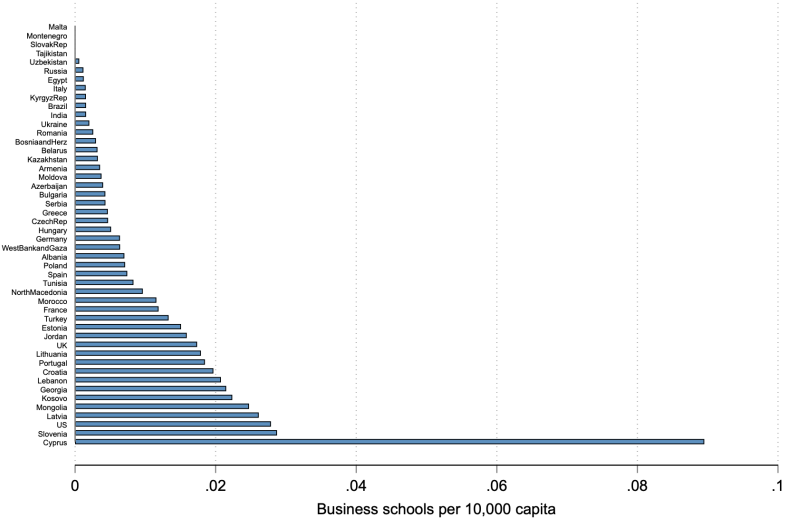

Appendix: Results using alternative prediction strategies

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Prediction →	Five-wise interaction		Post-selection coefficients		Leader share as threshold for 'Needs Leader' discretization	
Dependent variable → Log (labour productivity)	(1)	(2)	(3)	(4)	(5)	(6)
Mismatched	-0.154***		-0.167***		-0.158***	
	(0.038)		(0.039)		(0.040)	
Needs Leader, Gets Manager		-0.184***		-0.222***		-0.242***
		(0.044)		(0.050)		(0.054)
Needs Manager, Gets Leader		-0.108**		-0.156***		-0.114**
		(0.050)		(0.052)		(0.053)
Needs Manager, Gets Manager		-0.033		-0.088		-0.064
		(0.071)		(0.067)		(0.060)
$\beta_{LM} - \beta_{ML} = 0$ (p-value)		0.196		0.155		0.024
Country FE	YES	YES	YES	YES	YES	YES
Observations	4,453	4,453	4,453	4,453	4,453	4,453
R^2	0.343	0.343	0.343	0.344	0.343	0.344

Note: Estimated using OLS. Bootstrapped standard errors in parentheses.

Measures to capture misallocation on the country level

We summarize country-level mismatch in four ways:

- **Mismatched share:** the share of firms who are 'mismatched' across the country's firms.
- **Excess manager share:** the difference between the share of firms who have a manager in the economy vs the share of firms that need a manager. It, therefore, captures how scarce the supply of leaders is relative to the ideal supply
- **Needs Leader, Gets Manager share:** the share of firms who need a leader, but have a manager as a CEO. This is one of the two directions in which CEOs and firms can be mismatched. As leaders were found to be more in demand compared to actual shares in our sample, this is the more binding direction
- **Needs Manager, Gets Leader share:** calculates the share of firms who need a manager, but have a leader as a CEO. This is the other possible direction in which firms can be mismatched.

Only business schools founded before 1990 associated with a lower mismatched share

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Dependent variable → Share of:	Mismatched Firms	Excess manager Firms	Needs Leader, Gets Manager Firms	Needs Manager, Gets Leader Firms	Leader Firms
	(1)	(2)	(3)	(4)	(5)
Post-1990 business schools per capita	0.037**	-0.015	0.011	0.026	-0.055**
	(0.017)	(0.045)	(0.025)	(0.023)	(0.022)
Pre-1990 business schools per capita	-0.034*	-0.084*	-0.059**	0.025	0.048*
	(0.019)	(0.044)	(0.024)	(0.024)	(0.025)
Other higher education institutions per capita	-0.021**	0.013	-0.004	-0.017	0.019
	(0.009)	(0.028)	(0.015)	(0.014)	(0.024)
Log GDP per capita	0.042	-0.101	-0.030	0.072*	0.082*
	(0.026)	(0.087)	(0.050)	(0.041)	(0.042)
Ease of Doing Business Index	-0.052***	-0.025	-0.039	-0.014	0.018
	(0.014)	(0.066)	(0.037)	(0.030)	(0.024)
Observations	39	39	39	39	39
R^2	0.352	0.402	0.395	0.401	0.498

Note: Estimated using weighted OLS, with number of firms in the country used as weights. Robust standard errors in parentheses.