Appendix for *How do CEOs see their Roles? Management Philosophies and Styles in Family and non-Family firms*

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Table 1
Survey Responses by Country and Region

Country	**# observations**	**%**
Argentina	49	6%
Brazil	52	6%
Chile	38	5%
Colombia	50	6%
Costa Rica	21	3%
Ecuador	45	5%
Egypt	32	4%
El Salvador	31	4%
Ghana	26	3%
Guatemala	30	4%
Hong Kong, China	15	2%
India	30	4%
Kenya	60	7%
Malaysia	20	2%
Mexico	46	6%
Nigeria	29	4%
Peru	75	9%
Singapore	18	2%
South Africa	26	3%
Turkey	46	6%
Venezuela	47	6%
Zimbabwe	37	4%
TOTAL	**823**	**100%**

Region	**# countries**	**%**
S. America	7	32%
C. America	4	18%
Africa	5	23%
East Asia	4	18%
Turkey-Egypt	2	9%
TOTAL	**22**	**100%**

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Table 2
Ordered Probit Regressions

	Number of blockholder types				Number of managers reporting directly to CEO		
Response:	0	1	2	3+	< 5	5 to 10	10+
Founder CEO	-0.07***	-0.03**	0.07***	0.03**	0.15***	-0.05**	-0.10***
	[-3.29]	[-2.10]	[3.45]	[2.49]	[4.08]	[-2.12]	[-5.48]
Related CEO	-0.08***	-0.07***	0.10***	0.05***	0.04	-0.01	-0.04
	[-4.76]	[-3.26]	[5.51]	[3.66]	[1.14]	[-0.79]	[-1.18]
Prof. CEO of Family firm	-0.10***	-0.13***	0.14***	0.09***	0.03	-0.00	-0.03
	[-5.40]	[-5.19]	[7.71]	[4.39]	[1.43]	[-0.89]	[-1.43]
Country-level controls	Y	Y	Y	Y	Y	Y	Y
Sales & public listing controls	Y	Y	Y	Y	Y	Y	Y
SIC code fixed effects	Y	Y	Y	Y	Y	Y	Y
Observations	750	750	750	750	802	802	802

The table reports estimated marginal effects (by firm-CEO type) from ordered probit regessions of two (ordered) survey responses for each potential response. The independent variables are: three firm-CEO type indicator variables (the omitted category is professional CEO of a non-family firm), four country-level variables, two-digit SIC code fixed effects, an indicator for whether the firm is publicly listed, the natural logarithm of firm sales in 2006, and an indicator for missing value of firm sales. The country level variables are: the natural logarithm of per capita GDP, the Transparency International corruption index (higher values indicate low corruption), the Heritage Foundation property rights index (higher scores indicate more secure property rights), and an indicator variable for English or French legal origin (1 denotes English). t-statistics are in parentheses below each coefficient. *, **, and *** denote coefficients significant at 10%, 5%, and 1% respectively. Standard errors are clustered by country.

Fig. 1. Politics and Family ties (left column); Family Origins (right column). The charts below present a graphical representation of the results in Table 3 of this Appendix. Bars are means of regression residuals by the following firm-CEO types: 1: CEO Founder; 2: Related CEO; 3: Professional CEO of a Family Firm; 4: Professional CEO of a Non-Family firm. Bars of darker colors denote significant differences from the baseline i.e., firm-CEO type #4. The X-axis reflects the effect of each firm-CEO type on the probability of answering in the affirmative. See the paper for a description of the sample.

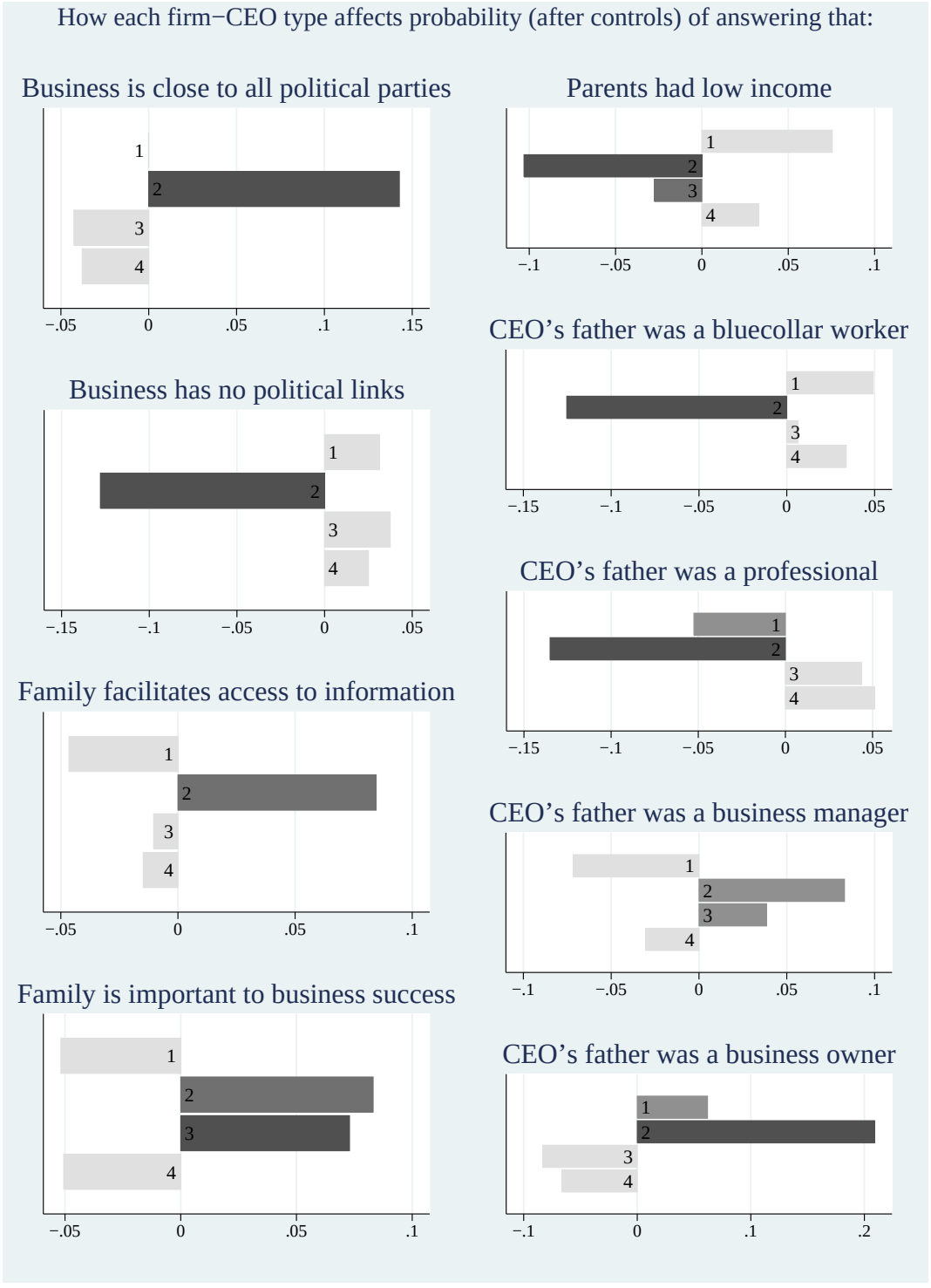

Table 3
Politics & Family Ties, and Family Origins

Panel A: Politics and family ties	Business tries to maintain relationship with all political parties	Business generally does not have close relationships with any political party or candidate	Family relationships facilitate access to information	Family relationships are very/moderately important in business
Founder CEO	0.06	-0.01	-0.03	0.01
	[0.890]	[-0.132]	[-0.403]	[0.125]
Related CEO	0.218***	-0.182***	0.115**	0.161**
	[4.318]	[-3.486]	[2.749]	[2.673]
Prof. CEO of Family firm	0.00	0.00	0.01	0.143***
	[0.066]	[0.080]	[0.160]	[3.670]
Country-level controls	Y	Y	Y	Y
Sales & public listing controls	Y	Y	Y	Y
SIC code fixed effects	Y	Y	Y	Y
Observations	720	720	821	796
Adjusted R^2	0.06	0.06	0.03	0.03

Panel B: Family Origins	Parental income when growing up was low	Father was a blue collar worker	Father was a professional	Father was a business manager	Father was a business owner
Founder CEO	0.04	0.01	-0.14*	-0.04	0.17*
	[0.978]	[0.195]	[-1.876]	[-1.304]	[1.894]
Related CEO	-0.16***	-0.19***	-0.23***	0.13*	0.34***
	[-5.700]	[-5.333]	[-5.237]	[1.812]	[4.907]
Prof. CEO of Family firm	-0.07**	-0.04	-0.02	0.08*	-0.01
	[-2.674]	[-1.091]	[-0.415]	[2.052]	[-0.195]
Country-level controls	Y	Y	Y	Y	Y
Sales & public listing controls	Y	Y	Y	Y	Y
SIC code fixed effects	Y	Y	Y	Y	Y
Observations	759	693	693	694	694
Adjusted R^2	0.11	0.06	0.04	0.01	0.09

Regressions of survey responses on a constant, three firm-CEO type indicator variables (the omitted category is professional CEO of a non-family firm), four country-level variables, two-digit SIC code fixed effects, an indicator for whether the firm is publicly listed, the natural logarithm of firm sales in 2006, and an indicator for missing value of firm sales. The country level variables are: the natural logarithm of per capita GDP, the Transparency International corruption index (higher values indicate low corruption), the Heritage Foundation property rights index (higher scores indicate more secure property rights), and an indicator variable for English or French legal origin (1 denotes English). All dependent variables are indicator variables, taking a value of 1 if the respondent is in agreement with the question or answers in the affirmative, and a 0 otherwise. Regressions are estimated using the linear probability model. t-statistics are in parentheses below each coefficient. *, **, and *** denote coefficients significant at 10%, 5%, and 1% respectively. Standard errors are clustered by country.

Paternal-Grandfather-to-Father Occupational Transition Matrices

We examine the occupational transitions between the fathers and paternal grandfathers of the CEOs in our sample. These transition matrices are unusual in that we are looking back from a highly selected sample of CEOs to the occupational transitions of their fathers and paternal grandfathers. The aim is to understand how much income and occupational mobility happened in generations prior to the current period, or whether the current CEO represents a unique jump in attainment that could have occurred from any point in the occupation distribution.

52% of CEOs' fathers worked in a different occupational category than *their* fathers (i.e., CEOs' paternal grandfathers). While this may appear to be a high degree of mobility, much is driven by the secular shift away from farming into other occupations that occurred across the world. **Table 4a** shows CEOs' fathers' occupations as a percentage of their fathers' occupations and should be read by rows rather than by columns: i.e., for all professional paternal grandfathers, 47% of their sons (whose sons, in turn, were CEOs) were also professionals, while 6% became blue-collar workers and 35% went into business.

Whatever the occupation of CEOs' paternal grandfathers, there was a striking movement by the **fathers** of CEOs into the business occupation category: it is the largest occupational category choice for all except those fathers whose own father was a professional, and even in that case 35% chose to work in business.[3] Thus only 22% of blue-collar grandfathers had a blue-collar son in our sample, and the proportions are similar for grandfathers that were farmers and Government officials.[4] In conjunction with the very low proportion of CEOs with a blue-collar father (15%), or low parental income (14%), this suggests it was difficult to move from the lower strata of society to CEO positions in a single generation.

One way to think about this matrix is to consider what would occur if this transition matrix

[3] For all transition tables, the pattern and magnitudes are essentially unchanged if we exclude related CEOs because of concerns that the transition matrix of related CEOs is less informative (as we already know that many of their fathers and/or grandfathers were CEOs).

[4] The status of farmers and Government workers in CEOs' grandparents' generation is unclear, so moving from those occupations and into business may not necessarily have implied an improvement in social standing.

for CEOs' fathers and grandfathers (in Table 4a) was a steady state transition matrix for a population. In such a scenario, what proportion of each occupational class would result from it in the long run? By iterating it hundreds of times, we obtain the steady state distribution of people across the five occupation classes, displayed in **Table 4b**.

This means that, if the people in our CEO sample were just like their fathers, and faced similar obstacles and opportunities, we would have seen a distribution somewhere in between the two in the table above. That is, we would have observed between 55% and 65% of our sample in business occupations, instead of observing 100% in business. As this is a sample of people who are selected based on their CEO position – which suggests natural ability coupled with opportunity – this difference between the steady state proportion in business suggested by their fathers' occupational transition matrix and the actual proportion does not seem unduly large. Indeed, perhaps the opposite: it may be evidence in favor of the inter-generational transmission of CEO ability, i.e., that their fathers were, as a group, already showing evidence of above-average talent for business.

When we draw up the paternal grandfather's occupation to father's income transition matrix in **Table 5**, we see a clear grouping of fathers in the middle income category, regardless of the grandfather's occupation. The particularly low proportion of low income fathers with the grandfather in business (7%) suggests that the latter were already at least moderately successful, if some economic advantage is transmitted between generations as the literature suggests. At the other extreme, approximately half of low income fathers had farmer fathers themselves (i.e., CEO paternal grandfathers).

The literature on family firms has also focused on the distance in generations between the founder and the current controlling family members. For example, in their study of Thai family business groups Bertrand et al. (2008) note that they have been around for an average of 2.5 generations, while Villalonga and Amit (2006) report of their sample of Fortune 500 firms that approximately a third were in their first generation, a further third were in their second generation, and the remainder were older still. While this information is not available in our sample for family firms run by professional CEOs, it is available for firms with related

CEOs: approximately 60% of related CEOs are a single generation younger than the founder (i.e., are the son, daughter, or nephew), while a further 18% are two generations younger (i.e., grand-children of the founder).[5]

[5] The remaining related CEOs are either in the same generation as the founder – 4% of related CEOs – (e.g., wife, brother, sister) or their generation could not be determined from their survey responses.

Table 4

(a) Inter-generational occupational transition matrix for CEO fathers and grandfathers

Origin: CEOs' paternal grandfathers' occupation	**Destination: CEOs' fathers' occupation**					
	Blue-collar	Professional	Business	Govt.	Farmer	*Total*
Blue-collar	22%	7%	**54%**	16%	1%	100%
Professional	6%	**47%**	**35%**	10%	2%	100%
Business	4%	11%	**78%**	5%	1%	100%
Govt.	8%	22%	**43%**	24%	4%	100%
Farmer	16%	18%	**35%**	8%	24%	100%

The table presents the inter-generational transition matrix of occupations for CEOs' father and grandfathers. Rows sum to 100%, so for each category of paternal grandfather occupation, the table presents the distribution of their sons' (the CEOs' fathers') occupations. The diagonal, representing relative occupational stability over generations, is outlined. Cell values over 30% are in bold.

(b) Steady State vs Actual distribution of CEOs' fathers

Distribution:	**Actual (CEOs' fathers')**	**Steady state**
Blue-collar	10.5%	6.2%
Professional	17.8%	18.3%
Business	54.3%	65.1%
Govt.	9.3%	8.3%
Farmer	8.1%	2.1%

The first column of this table shows the actual distribution of CEOs' fathers' occupations. The second column iterates the occupational transition matrix in the table above to obtain the steady state distribution of occupations suggested by the transition matrix.

Table 5 Inter-generational pseudo-transition matrix

Origin: CEOs' paternal grandfathers' occupation	**Destination: CEOs' fathers' occupation**			
	Low	Middle	High	Total
Blue-collar	20%	**63%**	17%	100%
Professional	11%	**55%**	**34%**	100%
Business	7%	**44%**	**48%**	100%
Govt.	12%	**51%**	**37%**	100%
Farmer	24%	**54%**	23%	100%

The table presents the inter-generational pseudo-transition matrix from CEOs' paternal grandfathers' occupations to their sons' (the CEOs' fathers') income levels when the CEO was growing up. Rows sum to 100%, so for each category of paternal grandfather occupation, the table presents the distribution of their son's income. Cell values over 30% are in bold.