

# Family Firms, Corporate Governance and Export

Raoul Minetti, Pierluigi Murro and Susan Chun Zhu

presented by Silvia Vannutelli

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- ▶ Export markets are an important venue for firms to grow.
- ▶ Firms' corporate governance influence firms' ability to export.
- ▶ Does (and how) family ownership affect firms' export behavior?

*"German family firms have led the country's export boom by dominating niche markets such as printing presses, licence plates and fly swatters. These firms pride themselves on a professional approach to management [...] The big advantage for family firms is their capacity for long-termism. The drawbacks are family feuds and a lack of professionalism in the second or third generations" The Economist (2012).*

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Some theoretical debate about positive and negative aspects of family ownership:

- ▶ Pro: long-termism (ability to internalize the long-run benefits of expanding abroad).
- ▶ Cons: fear of losing control, lack of competences, local orientation.

However, very few papers looking at family firms' internationalization.

This paper:

- ▶ investigates empirically whether family firms are different in the probability of exporting (extensive margin) and volume of export (intensive margin).
- ▶ explores whether family firms behave differently when expanding abroad.
- ▶ discuss the mechanisms through which family ownership might affect trade margins and internationalization process.

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- ▶ Corporate literature on impact of ownership structure on firm performance:

Anderson and Reeb (2003); Villalonga and Amit (2006); Bertrand and Schoar (2006); Sraer and Thesmar (2007); Favero et al. 2010; Maury (2006); Perez-Gonzalez (2006)

- ▶ few studies on family businesses' internationalization:

Gallo and Garcia Pont (1996); Zahra (2003); Graves and Thomas (2006).

- ▶ More broadly, vaste literature on firm productivity and extensive margin of trade:

Baldwin (1988); Dixit (1989); Roberts and Tybout (1997); Melitz (2003); Bernard and Jensen (2004); Chaney (2005); Das, Roberts and Tybout (2007); Di Giovanni and Levchenko (2009); Eaton et. al. (2011); Minetti and Zhu (2011)...

# Theoretical Predictions - I

## Challenges associated with export activities:

- ▶ entering foreign markets entail high fixed costs, some of which are sunk.
- ▶ strong competition in open foreign markets => exports' profits more volatile.
- ▶ difficult for lenders to verify foreign sales and collateral assets abroad => harder for firms to get funds to finance foreign expansion.

## Theories on family firms:

- ▶ Efficiency-based - family ownership source of comparative advantage.
  - ▶ Family owners have long-term horizon ("patient capital") => more willing to sustain upfront fixed costs of export for long-term returns.
- ▶ Cultural view - family values may lead family owners to distorted choices:
  - ▶ fear of losing control => transmission to inefficient descendants => lack of skills.
  - ▶ fear of losing independence => reluctance to collaborate with foreign agents.
  - ▶ attachment to original territory => deter exports, enter only close-by markets.

- ▶ Export decision:
  - ▶ if benefits of long-term horizon prevail over costs of limited skills, risk aversion, and narrowness => family firms should export more than non-family firms.
  - ▶ limited skills, risk aversion => family firms export more if they operate in traditional industries.
- ▶ Internationalization process:
  - ▶ Pace of internationalization:  
lack of skills, risk aversion => "sequential exporting", close-by markets.  
long-termism => once entered new markets, intention to stay.
  - ▶ Entry modes:  
lack of competence => look for support of domestic institutions(e.g. consortia).  
fear of losing control => limited collaboration with foreign firms or intermediaries.



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TABLE 4  
FAMILY OWNERSHIP AND EXPORT BEHAVIOUR-ROADMAP OF TESTS

Channel	Family ownership and export (extensive and intensive margin)	Family ownership and internationalization process
Long-termism	Firm age	Pace of internationalization (export persistence)
	Financial institutions subscribing shares and intention to go public	
Risk aversion	Financial diversification	Collaboration with other parties (foreign agents)
Lack of competence and knowledge	Presence of external managers Industry sophistication	Number of markets Pace of internationalization (sequential exporting)
	Export market sophistication	Collaboration with other parties (domestic agents)
	Skilled workforce	
Excess of narrowness	Niche markets	

Probit model to analyze extensive margin:

$$P(\text{Export}_i = 1 | O_i, Z_i) = \Phi(\alpha_1 + O_i\beta_1 + Z_i\gamma_1) \quad (1)$$

where:  $O_i$  is a binary indicator, equal 1 if main shareholder is individual or family,  $Z_i$  vector of controls for firm's characteristics that may affect export decision. **Alternatively, linear probability model:**

$$P(\text{Export}_i = 1 | O_i, Z_i) = \alpha_1 + O_i\beta_1 + Z_i\gamma_1 \quad (2)$$

Standard OLS to analyze intensive margin and internationalization process:

$$y_i = \alpha_2 + O_i\beta_2 + Z_i\gamma_2 + \epsilon_{2i} \quad (3)$$

where:  $y_i$  is the log of firm's value of exports,  $\epsilon_{2i}$  captures unobserved factors that may affect  $y_i$ .

- ▶ Identification issues: reverse causality, unobserved omitted variables.
- ▶ IV Strategy - Binary Probit, modeling ownership using:

$$P(\text{Export}_i = 1 | I_p, Z_i) == P(I_p\delta + Z_i\lambda + \nu_i > 0) = \Phi(I_p\delta + Z_i\lambda) \quad (4)$$

where  $I_p$  is a set of instruments for family ownership: province-level the number of savings and cooperative banks in 1936, proxy of local financial development.

- ▶ 2SLS for the linear probability model and the intensive margin.

- ▶ 1936 regulation => local financial development
  - ▶ 1936: national reform restricting entry of banks into local credit markets. Stronger limitations for cooperative than for savings banks.
  - ▶ In provinces with higher share of savings banks, access to external funds was easier (Guiso et al. (2003, 2004)).
- ▶ Local financial development => family ownership structure:
  - ▶ restrictions on local supply credit market prevent external investors from borrowing and acquiring firms' equity, and favor intergenerational transmission of ownership (Caselli et al, 2013).
  - ▶ lack of signals from credit market to potential new shareholder.

- ▶ Instrument's validity:
  - ▶ as ownership structure if a highly persistent firm characteristic, the impact of 1936 regulation persisted over years and is correlated with current ownership structure.
  - ▶ distribution of types of banks across provinces in 1936 stemmed from "historical accident", uncorrelated with structural characteristics of the provinces, and removed in 1980 - no direct impact of the regulation on recent export decisions.
- ▶ Potential violation of exclusion restriction:
  - ▶ 1936-regulation could affect export decisions today through its long-run impact on financial development.
  - ▶ control for this by including proxies of current credit market conditions.

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  - ▶ control for this by including proxies of current credit market conditions.

Four three-year waves of the "Capitalia survey on italian manufacturing firms", 1994-2006:

- ▶ representative sample of firms with 10-500 employees (94% of sample)
- ▶ universe of firms with more than 500 employees.

Relevant Measures:

- ▶ detailed info on ownership structure: main shareholders, equity shares.
- ▶ data on export activities: export participation, share and value of foreign sales, export markets, internationalization process.

Controls:

- ▶ labor productivity (value added per worker), firm size (total assets or number of employees), capital intensity (fixed assets per worker), corporation, consortium's affiliation, external financial dependence, leverage ratio, level of specialization, industry dummies, measures of non-tariff barriers (UNCTAD), province effects.



Table: Summary statistics

Variable	All Firms	Family	Non-Family	Exporters	Non-Exporters
<i>Export Participation and sales</i>					
Export Participation	0.66	0.64	0.71		
Export/Sales	42.22	41.67	42.54		
<i>Ownership Structure and Corporate Governance</i>					
Family Ownership	0.75			0.73	0.79
Family with Control		0.93		0.68	0.73
External Managers	0.48	0.41	0.66	0.54	0.34
<i>Firm Characteristics</i>					
Age	24.3	24.1	25	25.3	22.6
Corporation	0.93	0.93	0.94	0.95	0.91
Consortium	0.09	0.09	0.08	0.10	0.7
Financial Concentration	0.92	0.93	0.91	0.91	0.95
ATECO 5-digit	0.31	0.32	0.27	0.33	0.27

Table: Summary statistics - 2

Variable	All Firms	Family	Non-Family	Exporters	Non-Exporters
<i>Sectoral Distribution</i>					
Traditional Sector	0.49	0.51	0.42	0.47	0.52
Scale-intensive Sector	0.21	0.19	0.24	0.17	0.27
Specialized Sector	0.26	0.26	0.27	0.31	0.16
High-Tech Sector	0.05	0.04	0.06	0.05	0.04
<i>Geographical Distribution</i>					
North	0.68	0.67	0.72	0.72	0.61
Center	0.18	0.19	0.16	0.17	0.19
South	0.14	0.14	0.12	0.11	0.20
<i>Internationalization Process</i>					
Local Distributors	0.44	0.43	0.46	0.44	0.47
Intermediaries	0.07	0.06	0.11	0.08	0.04
EU Assistance	0.04	0.04	0.05	0.06	0.01
Non-EU Assistance	0.03	0.03	0.04	0.05	0.00

Table: Baseline Estimates

	Extensive Margin			Intensive Margin	
	OLS	Probit	Probit (No Size)	OLS	OLS (No Size)
Family	0.031***	0.037***	-0.043***	0.041	-0.662***
Log(Total Assets)	0.101***	0.124***		1.049***	
Log(Capital Intensity)	-0.025***	-0.029***	0.026***	-0.223***	0.340***
Log(labor productivity)	0.009	0.004	0.047***	0.219***	0.434***
Age	0.0003	0.000	0.002***	-0.004***	0.006***
Corporation	0.129***	0.144***	0.133***	0.075	0.071
Consortium	0.055***	0.062***	0.056***	0.026	-0.063
ATECO 5-digit	0.045***	0.052***	0.036**	0.023	-0.183***
Rajan-Zingales index	-0.059***	-0.063***	-0.044*	0.016	0.031
Observations	0.18	0.19	0.16	0.17	0.19
R-squared	0.14	0.14	0.12	0.11	0.20

# Family Control, Management and Export

TABLE 3  
FAMILY CONTROL AND MANAGEMENT

	Extensive margin		Intensive margin	
	(1)	(2)	(3)	(4)
Family with control	0.033*** (0.011)		0.043 (0.030)	
Family without control	0.008 (0.020)		0.039 (0.049)	
Family with external managers		0.045*** (0.010)		0.085** (0.037)
Family without external managers		-0.016 (0.015)		0.017 (0.036)
Observations	12,368 0.181	8600 0.197	5876 0.679	4954 0.692

TABLE 4  
FAMILY OWNERSHIP AND EXPORT BEHAVIOUR-ROADMAP OF TESTS

Channel	Family ownership and export (extensive and intensive margin)	Family ownership and internationalization process
Long-termism	Firm age	Pace of internationalization (export persistence)
	Financial institutions subscribing shares and intention to go public	
Risk aversion	Financial diversification	Collaboration with other parties (foreign agents)
Lack of competence and knowledge	Presence of external managers	Number of markets
	Industry sophistication	Pace of internationalization (sequential exporting)
	Export market sophistication	Collaboration with other parties (domestic agents)
	Skilled workforce	
Excess of narrowness	Niche markets	

# CHANNEL 1: Long-termism

TABLE 5  
FAMILY FIRMS AND LONG-TERMISM

	Extensive margin		Intensive margin		Entering new markets			Exiting from old markets		
	Old	Young	Old	Young	(2003-6)			(2003-6)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Family	0.034*** (0.011)	0.026 (0.016)	0.070* (0.039)	0.028 (0.041)	0.055* (0.028)	0.058** (0.028)	0.054* (0.029)	-0.033 (0.047)	-0.04 (0.036)	-0.041 (0.035)
Fin. inst. subscribe (2001-3)						-0.192*** (0.054)			0.228** (0.088)	
Intention to go public (2001-3)							-0.141 (0.136)			-0.07 (0.091)
Number of export markets (2003)						-0.056*** (0.008)	-0.056*** (0.007)		0.174*** (0.007)	0.171*** (0.007)
Observations	6754	5614	3437	2439	778	776	745	778	776	745
R <sup>2</sup>	0.209	0.175	0.690	0.682	0.127	0.131	0.136	0.199	0.201	0.217

TABLE 6  
FAMILY FIRMS AND RISK AVERSION

	All firms		Domestic assets		Total assets < € 17.8 million	
	Fin. conc. = 1 (1)	Fin. conc. < 1 (2)	Fin. conc. = 1 (3)	Fin. conc. < 1 (4)	Fin. conc. = 1 (5)	Fin. conc. < 1 (6)
<i>Panel A: Extensive margin</i>						
Family	0.043** (0.017)	0.011 (0.027)	0.051*** (0.019)	0.011 (0.028)	0.036 (0.022)	0.014 (0.053)
Observations	3307	887	3043	880	2390	411
R <sup>2</sup>	0.210	0.303	0.207	0.303	0.223	0.373
<i>Panel B: Intensive margin</i>						
Family	0.062 (0.055)	0.056 (0.091)	0.070 (0.065)	0.055 (0.093)	0.043 (0.073)	0.004 (0.221)
Observations	1797	527	1617	520	1148	200
R <sup>2</sup>	0.669	0.791	0.656	0.793	0.433	0.699

TABLE 7  
FAMILY FIRMS AND SKILLS

	Industries					Non-EU
	All	Traditional	Scale-intensive	Specialized	High-tech	markets
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Without control for skills</i>						
Family	0.031*** (0.011)	0.038* (0.020)	0.049** (0.020)	0.017 (0.016)	−0.090** (0.041)	0.000 (0.011)
Observations	12,368	6064	2554	3183	546	8168
R <sup>2</sup>	0.181	0.171	0.262	0.164	0.299	0.161
<i>Panel B: With control for skills</i>						
Family	0.002 (0.013)	0.012 (0.021)	0.012 (0.037)	0.004 (0.020)	−0.116** (0.056)	0.009 (0.016)
Family * Skilled workforce	0.049*** (0.014)	0.047** (0.018)	0.065* (0.037)	0.015 (0.019)	0.058 (0.078)	0.048** (0.018)
Skilled workforce	0.009 (0.012)	0.046*** (0.017)	−0.027 (0.037)	−0.001 (0.019)	−0.049 (0.055)	0.018 (0.016)
Observations	10,367	5121	2160	2634	452	6370
R <sup>2</sup>	0.191	0.185	0.277	0.181	0.330	0.328



TABLE 8  
FAMILY FIRMS' NARROWNESS

	Extensive margin		Intensive margin	
	5- or 4-digit ATECO (1)	3-digit ATECO (2)	5- or 4-digit ATECO (3)	3-digit ATECO (4)
Family	0.033*** (0.012)	0.023 (0.019)	0.032 (0.040)	0.040 (0.070)
Observations	8985	3383	4161	1715
$R^2$	0.196	0.202	0.675	0.719

# Family Firms and Internationalization Process - Pace

TABLE 9  
EXPORT MARKETS AND PACE OF INTERNATIONALIZATION

	Export markets				Pace of internationalization		
	One market (1)	Multiple markets (2)	Export persistence		Export growth (5)	Non-EU markets (6)	Oceania (7)
			(3)	(4)			
<i>Panel A: Without control for skills</i>							
Family	0.041*** (0.015)	0.029** (0.013)	0.038 (0.035)	0.015 (0.041) 0.378** (0.160)	0.037 (0.051)	0.000 (0.011)	0.014* (0.007)
Family * High-tech industry				—0.395*** (0.124)			
High-tech industry							
Observations	6445	9818	778	758	674	8168	8168
R <sup>2</sup>	0.160	0.245	0.163	0.173	0.174	0.161	0.071
<i>Panel B: With control for skills</i>							
Family	0.031** (0.015)	—0.007 (0.016)	—0.115 (0.083)		—0.216** (0.105)	0.009 (0.016)	—0.002 (0.011)
Family * Skilled workforce	0.023 (0.026)	0.055*** (0.015)	0.302* (0.157)		0.582** (0.242)	0.048** (0.018)	0.034* (0.017)
Skilled workforce	0.019 (0.021)	0.011 (0.015)	—0.220* (0.132)		—0.357* (0.193)	0.018 (0.016)	—0.025* (0.015)
Observations	6433	8385	678		600	6370	8156
R <sup>2</sup>	0.161	0.248	0.200		0.208	0.328	0.071

# Family Firms and Internationalization Process - Entry modes

TABLE 10  
EXPORT AND COLLABORATION WITH OTHER PARTIES

	Local distributors (1)	Intermediaries (2)	Joint ventures (3)
<i>Panel A: Collaboration with foreign parties</i>			
Family	0.005 (0.027)	-0.01 (0.014)	-0.001 (0.008)
Observations	2235	2097	4113
R <sup>2</sup>	0.108	0.112	0.615
	EU (1)	Non-EU (2)	Chambers of commerce (3)
<i>Panel B: Assistance of domestic parties</i>			
Family	0.037*** (0.012)	0.034*** (0.012)	0.037*** (0.012)
Family * Assistance	0.037 (0.030)	0.101*** (0.029)	0.044* (0.023)
Assistance	0.190*** (0.022)	0.089*** (0.023)	0.176*** (0.021)
Observations	9900	9900	9971
R <sup>2</sup>	0.205	0.200	0.208

## Family Firms and Export - IV Estimates

Table: IV Estimates

	Extensive Margin		Intensive Margin
	2SLS	Biv. Probit	2SLS
Family	-0.678	0.188***	1.609
Log(Total Assets)	0.016	0.025***	1.256***
Centre	-0.039	-0.033***	-0.043
South	-0.095**	-0.094***	-0.423***
Province GDP growth	0.066	0.004	-0.153
First Stage: N savings banks 1936	-0.034**	-0.104*	-0.044**
Observations	12368	12368	5876

## Summary of Results

1. family firms are significantly more likely to export (3.7%), the positive effect being more pronounced when ownership is aligned with control and external managers are hired.
2. supportive evidence that the positive effect of family ownership is driven by long-term horizon of family owners.
3. family ownership stimulates export participation in traditional sectors with non-sophisticated technologies, while it hinders export in high-tech.
4. family firms enter financial markets in a more progressive way, and benefit from support of domestic institutions.
5. once they enter a foreign market, family firms tend to be more persistent exporters.
6. no significant impact of family ownership on the intensive margin.

# Conclusion

- ▶ This paper investigates impact of family ownership on firms' internationalization.
- ▶ Theoretical literature yields ambiguous predictions on whether family firms have more incentives and ability to export than non-family ones.
- ▶ First paper providing empirical evidence on the positive impact of family ownership on the extensive margin of export.
- ▶ Further analysis to understand the channels through which family ownership affects export.
- ▶ Results and implications could be extended to several countries.

Thank you for your attention!

## Appendix - Why Italy? Institutional Background

- ▶ in 2000, the main shareholder was an individual or family in 54% of private firms.
- ▶ Very limited presence of financial institutions among shareholders.
- ▶ 52.7% of exporting firms (among those with more than 10 employees).
- ▶ manufacturing industries account for 51% of total export value.
- ▶ 70% of total export sold in EU (11% in US and Canada, 11% in Asia).



# Appendix - Original Table 2

TABLE 2  
BASELINE ESTIMATES

	Extensive margin						Intensive margin			
	OLS (1)	Probit (2)	OLS (3)	OLS (4)	OLS (5)	Probit (6)	OLS (7)	OLS (8)	OLS (9)	OLS (10)
Family	0.031*** (0.011)	0.037*** (0.013)	0.032*** (0.011)	0.030*** (0.010)	-0.040*** (0.010)	-0.043*** (0.011)	0.043 (0.030)	0.041 (0.030)	-0.654*** (0.043)	-0.662*** (0.042)
Log(total assets)	0.101*** (0.007)	0.124*** (0.009)	0.101*** (0.007)	0.101*** (0.007)			1.070*** (0.015)	1.049*** (0.027)		
Log(capital intensity)	-0.025*** (0.009)	-0.029*** (0.010)	-0.026*** (0.009)	-0.026*** (0.009)	0.024*** (0.007)	0.026*** (0.007)	-0.229*** (0.026)	-0.223*** (0.027)	0.351*** (0.038)	0.340*** (0.036)
Log(labour productivity)	0.009 (0.012)	0.004 (0.014)	0.008 (0.011)	0.008 (0.012)	0.042*** (0.012)	0.047*** (0.013)	0.220*** (0.033)	0.219*** (0.032)	0.458*** (0.063)	0.434*** (0.062)
Age	0.0003 (0.0003)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.001*** (0.000)	0.002*** (0.000)	-0.004*** (0.001)	-0.004*** (0.001)	0.006*** (0.001)	0.006*** (0.001)
Corporation	0.129*** (0.027)	0.144*** (0.029)	0.133*** (0.026)	0.126*** (0.026)	0.126*** (0.026)	0.133*** (0.027)	0.096 (0.066)	0.075 (0.078)	0.136 (0.108)	0.071 (0.134)
Consortium	0.055*** (0.016)	0.062*** (0.016)	0.056*** (0.016)	0.057*** (0.015)	0.052*** (0.016)	0.056*** (0.017)	0.043 (0.038)	0.026 (0.039)	-0.028 (0.052)	-0.063 (0.059)
ATECO 5-digit	0.045*** (0.014)	0.052*** (0.016)	0.046*** (0.014)	0.050*** (0.014)	0.032*** (0.015)	0.036*** (0.016)	0.033 (0.042)	0.023 (0.044)	-0.165*** (0.066)	-0.183*** (0.067)
ATECO 4-digit	0.005 (0.014)	0.009 (0.015)	0.006 (0.014)	0.005 (0.014)	-0.003 (0.015)	-0.002 (0.016)	-0.015 (0.042)	-0.017 (0.042)	-0.078 (0.071)	-0.077 (0.072)
Leverage	1.357** (0.637)	3.249 (3.473)	1.409** (0.630)	1.455** (0.632)	1.218* (0.719)	3.875 (3.439)	16.774 (15.097)	17.836 (15.384)	13.767 (27.164)	14.254 (27.094)
Leverage *Rajan-Zingales index	-14.649*** (4.265)	-38.707*** (14.181)	-14.573*** (4.167)	-14.649*** (4.145)	-13.504*** (4.854)	-37.432*** (16.882)	-33.66 (42.367)	-29.17 (43.243)	-29.728 (63.624)	-10.74 (70.589)
Rajan-Zingales index	-0.059*** (0.019)	-0.063*** (0.024)	-0.059*** (0.019)	-0.059*** (0.019)	-0.051** (0.020)	-0.044* (0.023)	0.002 (0.079)	0.016 (0.082)	0.008 (0.128)	0.031 (0.129)

# Appendix - Original Table 2

TABLE 2  
CONTINUED

	Extensive margin						Intensive margin			
	OLS (1)	Probit (2)	OLS (3)	OLS (4)	OLS (5)	Probit (6)	OLS (7)	OLS (8)	OLS (9)	OLS (10)
NTM			-0.001** (0.000)	-0.005*** (0.002)						
NTM *Family			0.000 (0.000)	0.000 (0.002)						
Inverse Mills ratio								-0.161 (0.140)	-0.351 (0.262)	
Province fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industry fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Survey year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	12,368	12,368	12,368	12,368	12,368	12,368	5876	5834	5876	5834
R <sup>2</sup>	0.181		0.183	0.183	0.133		0.679	0.679	0.212	0.212

# Appendix - Original Table 11

TABLE 11  
IV ESTIMATES

	Extensive margin				Intensive margin	
	OLS (1)	2SLS (2)	Probit (3)	Biv.probit (4)	OLS (5)	2SLS (6)
Family	0.033*** (0.011)	-0.678 (0.816)	0.039*** (0.013)	0.188*** (0.062)	0.042 (0.030)	1.609 (1.496)
Log (total assets)	0.100*** (0.007)	0.016 (0.098)	0.120*** (0.009)	0.025*** (0.008)	1.064*** (0.014)	1.256*** (0.185)
Log (capital intensity)	-0.027*** (0.009)	-0.014 (0.019)	-0.031*** (0.010)	0.013*** (0.008)	-0.235*** (0.028)	-0.273*** (0.053)
Log (labour productivity)	0.016 (0.012)	0.014 (0.012)	0.011 (0.014)	0.006 (0.011)	0.245*** (0.037)	0.253*** (0.049)
Age	0.000 (0.000)	0.001 (0.001)	0.000 (0.000)	0.001 (0.0003)	-0.004*** (0.001)	-0.007*** (0.003)
Corporation	0.138*** (0.027)	0.126*** (0.033)	0.150*** (0.029)	0.117*** (0.023)	0.087 (0.065)	0.058 (0.093)
Consortium	0.055*** (0.015)	0.063*** (0.021)	0.060*** (0.015)	0.054*** (0.017)	0.049 (0.038)	-0.012 (0.077)
ATECO 5-digit	0.044*** (0.014)	0.048*** (0.018)	0.050*** (0.014)	0.049*** (0.016)	0.044 (0.044)	0.042 (0.043)
ATECO 4-digit	0.002 (0.013)	0.000 (0.018)	0.006 (0.015)	0.004 (0.016)	-0.008 (0.043)	-0.005 (0.043)
Leverage	1.106* (0.633)	1.335*** (0.382)	1.833 (2.753)	1.255 (8.879)	15.873 (12.211)	6.969 (16.142)
Leverage * Rajan-Zingales index	-14.262*** (4.163)	-11.551*** (3.816)	-35.133*** (13.451)	-53.895** (12.091)	-27.071 (38.504)	-69.74 (54.572)

# Appendix - Original Table 11

TABLE 11  
CONTINUED

	Extensive margin				Intensive margin	
	OLS (1)	2SLS (2)	Probit (3)	Biv.probit (4)	OLS (5)	2SLS (6)
Rajan-Zingales index	-0.057*** (0.019)	-0.060* (0.031)	-0.062*** (0.022)	-0.044*** (0.029)	0.005 (0.079)	0.092 (0.126)
Centre	-0.056** (0.024)	-0.039 (0.027)	-0.067** (0.027)	-0.033*** (0.023)	0.013 (0.077)	-0.043 (0.086)
South	-0.127*** (0.019)	-0.095** (0.039)	-0.144*** (0.020)	-0.094*** (0.022)	-0.327*** (0.045)	-0.423*** (0.097)
Provincial GDP growth	0.014 (0.127)	0.066 (0.134)	-0.018 (0.139)	0.004 (0.109)	-0.001 (0.329)	-0.153 (0.405)
Instrumental variable Number of savings banks in 1936		-0.034** (0.016)		-0.104* (0.062)		-0.044** (0.019)
Province fixed effects	N	N	N	N	N	N
Industry fixed effects	Y	Y	Y	Y	Y	Y
Survey year fixed effects	Y	Y	Y	Y	Y	Y
Observations	12,368	12,368	12,368	12,368	5876	5876
R <sup>2</sup>	0.163				0.666	