

# Journal of World Business

## FIGHT OR FLIGHT? UNDERSTANDING FAMILY FIRM INTERNATIONALIZATION WHEN THE RULES OF THE GAME CHANGE

--Manuscript Draft--

<b>Manuscript Number:</b>	JWB-D-21-00800R2
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<b>Abstract:</b>	Building on the mixed gamble perspective, we examine family versus nonfamily firms' propensity to increase or decrease their internationalization in response to different sources of risk. Our framework explains how a firm's mixed gamble calculus of internationalization can change as it adjusts to business, industry, and institutional circumstances. Using an unbalanced panel of 1031 publicly traded firms from 11 European countries over a 15-year period, our study offers unique insight on why firms, depending on their degree of family ownership, calculate the mixed gamble of internationalization differently and why they vary in their decisions to expand or withdraw from internationalization.
<b>Suggested Reviewers:</b>	
<b>Opposed Reviewers:</b>	
<b>Response to Reviewers:</b>	

## **JWB-D-21-00800.R2 – Letter to the Special Issue Editor and Guest Editors**

Dear Professors,

Thank you for the opportunity to revise and resubmit our manuscript (JWB-D-21-00800.R2), now titled “Fight or Flight? Understanding Family Firm Internationalization When the Rules of the Game Change” to the *Journal of World Business* Special Issue on family business and international business. We appreciate the constructive and helpful comments we received, which allowed us to significantly improve our manuscript.

Below, we provide point-by-point responses to your and the reviewer comments. We reproduced the original comments in bold, followed by each response. We report a list of all references used in our responses at the end of the letter.

### **Responses to the Special Issue Editor and Guest Editors**

**Comment 1: On behalf of my co-guest Editors and myself I’d like to thank you for having submitted your work to the Special Issue (SI) - Family business and international business: Breaking silos and establishing a rigorous way forward – at Journal of World Business. I have now received back the two reviews from two high qualified scholars who had reviewed your manuscript previously. The referees both see that there has been a great deal of work which has gone in this revised version. One reviewer is very satisfied with the work that has been done. Another reviewer is still very skeptical about your story, theory, and data. After my own careful assessment of your work, I am offering you the opportunity to revise your work for further publication consideration at JWB. Please carefully address all my points and the ones from Reviewer 1. Please also consider the ones from Reviewer 2 and where possible make adjustments in your manuscript.**

RESPONSE: Thank you very much for the opportunity to revise and resubmit our manuscript to your special issue in the *Journal of World Business*. We are delighted that you and the reviewers reacted positively to many aspects of our work, including our novel research focus, the theoretical and practical relevance of our topic, and the strength of our statistical analyses. We appreciate your clear guidance in how we could improve the clarity and contributions of our research. We also thank you for suggesting several articles to help with our revision; many helped shape the direction of our revision and strengthened our core arguments. We have worked to address each of your and the reviewers’ comments and feel that our revised manuscript is stronger both theoretically and empirically. We hope that you will agree and that our revisions alleviate your concerns.

**Comment 2: Abstract and Introduction. The introduction section is improved and advanced in comparison to the previous version of the manuscript. What I would like to suggest is to shorten it a bit up. In its current form it is still very rich and complex, and I think you need to streamline better your arguments in this part of the paper. Too many details and too many points are already presented here which in my view could go in the next sections of the paper. The same applies to your abstract. Try to narrow it down to**

**the very core message of this paper. You do not need all those details and explanations in that part of the paper.**

RESPONSE: Thank you. We took your comment to heart and narrowed down the Introduction, which we hope you will find more straightforward and effective.

**Comment 3: Theory and theoretical development. You have developed quite extensively your theoretical arguments to derive your hypotheses. Nevertheless, sometimes you use too many of them, and the flow becomes wordy and sometimes difficult to be followed. I suggest trying to condense and streamline the theory part more and keep it to the core. Please also consider my next suggestion when reworking the theory part.**

RESPONSE: We did our best to condense and streamline the theory section while balancing this effort with the risk of simplifying too much. We hope you will appreciate the improvement.

**Comment 4: Prospective SEW? From your theorizing about mixed gambles, I do miss “prospective SEW” and “current financial wealth”. It looks like you only use in your theorizing prospective financial wealth and current SEW but why only those options? Some research points out to a mixed gamble that considers more options here. You can sacrifice current SEW today because you hope that it will lead to gain prospective SEW in the future. And at the same time, you can focus on current financial wealth and sacrifice prospective financial wealth. This logic could be applied to your reasoning too. How do you deal with that? I’m not asking to rework completely the theory and theoretical arguments but to consider what I’m mentioning above in your next round to make sure that your application of mixed gamble is theoretically strong and sound.**

RESPONSE: While we appreciate your comment and understand your point, after further consideration we decided to emphasize a more traditional application of the mixed gamble perspective. However, in line with your suggestion, in some instances, we were able to make adjustments without over-complicating our logic. We hope this approach, and the strengthening of our arguments, address your concern.

**Comment 5: Methodological issues. I’d suggest you look carefully at the suggestions provided by Reviewer 1 on the multi-level nature of your data and analyses. Please also adjust the statements on the significance levels of your hypotheses. Both reviewers point-out to your three-way interaction please address those concerns better in the next revised version of the manuscript.**

RESPONSE: We have taken several important steps to address your and reviewers’ comments regarding the empirics. First, we have accounted for the multilevel structure of the data by using the multilevel linear modelling technique (Rabe-Hesketh & Skrondal, 2008) and obtained similar results to our main findings. The results of this check have been reported in the robustness tests and added to the Supplemental document (Table S9).

Second, we have adjusted all of our empirical claims as per your and Reviewer 1’s advice.

Third, we have answered in-detail all the empirical questions raised by Reviewer 2 regarding the estimation and interpretation of the three-way interactions.

**Comment 6: The reviewers make several other specific, actionable comments and suggestions that should be helpful as you work on the revision and that I kindly ask you to follow carefully. Please address all theirs and my points in a point-by-point response letter motivating your choices and how you addressed the issues which have been raised. Once more thanks for considering our SI and good luck in further developing your work.**

RESPONSE: Thank you again! We found your comments to be of great help in guiding our revision and helping us to craft a manuscript with clearer contributions to the IB and family business literatures. We believe the revised version addresses your concerns and, in doing so, provides a much stronger theoretical contribution.

## Responses to Reviewer 1

**Opening Comment: Well done. I now more or less understand the manuscript, although I am still skeptical about whether a three way interaction really provides much value.**

RESPONSE: Many thanks for your kind feedback! We are pleased that you found our study novel and the statistical analysis well executed. We appreciate the time you have taken to provide us with detailed guidance aimed to improve the clarity and contribution of our work. We hope that our revision effectively incorporates your suggestions.

**Comment 1: One remaining comment is about the multi-level nature of your research question and analysis. I am not sure how you account for the effect that firms are nested in industries which are nested in countries. This needs to be accounted for in your analysis through some form of hierarchical analysis. Please explain more clearly how you deal with this problem.**

RESPONSE: Given that the multilevel linear regression estimator is inferior as compared to the fixed-effects regression estimator in describing causal mechanisms (Hsiao, 2007; Quintana, 2021), we opted for the fixed-effects estimator (as the more conservative one) in our main analysis aiming for establishing causality between the main variables of interest. However, following the Editor's and your advice, we have also re-run our explanatory model with the help of multilevel linear modelling technique (Rabe-Hesketh & Skrondal, 2008) accounting for the multilevel structure of the data. The results of this check confirm our main findings and have been added to the Supplemental document as the following:

*Following prior research in international business literature (Peterson, Arregle, & Martin, 2012), we have also re-run our explanatory model using the multilevel linear modelling technique (Rabe-Hesketh & Skrondal, 2008) accounting for the multilevel structure of the data (i.e., sampled firms are nested in industries, which are nested in countries). This final check, reported in the Supplemental Document's Table S9, confirmed our principal findings.*

**Table S9.** Accounting for the multilevel structure of the data

Model	(1)	(2)	(3)	(4)	(5)
D.V.: Internationalization scale	Full sample	Full sample	Full sample	Fast speed of reforms' subsample	Fast speed of reforms' subsample
<b>Level 1 (Firms)</b>					
Historical performance gap	0.008 (0.859)	0.001 (0.979)	0.009 (0.843)	-0.252 (0.033)	-0.170 (0.215)
Family ownership	-0.002 (0.001)	-0.002 (0.001)	-0.001 (0.003)	-0.001 (0.275)	-0.000 (0.371)
Controls	Yes	Yes	Yes	Yes	Yes
Random effects	Yes	Yes	Yes	Yes	Yes
<b>Level 2 (Industry)</b>					
Industry munificence	0.002 (0.680)	0.002 (0.672)	0.005 (0.482)	-0.010 (0.363)	-0.002 (0.906)
Controls	Yes	Yes	Yes	Yes	Yes
Random effects	Yes	Yes	Yes	Yes	Yes
<b>Level 3 (Country)</b>					

Speed of reforms	-0.023 (0.675)	-0.024 (0.663)	-0.024 (0.662)	-0.061 (0.034)	-0.064 (0.009)
Controls	Yes	Yes	Yes	Yes	Yes
Random effects	Yes	Yes	Yes	Yes	Yes
Interactions					
Family ownership*Historical performance gap		0.005 (0.002)		0.010 (0.000)	
Family ownership*Industry munificence			-0.001 (0.000)		-0.001 (0.016)
Time FE	Yes	Yes	Yes	Yes	Yes
Constant	0.141 (0.048)	0.141 (0.047)	0.136 (0.058)	0.006 (0.898)	-0.002 (0.969)
Log Restricted Likelihood	851.177	851.703	853.197	384.816	383.928
<i>N</i>	3526	3526	3526	957	957

*Notes:* This table presents the coefficients and p-values (in parentheses) of the multilevel linear regressions with robust standard errors.

**Comment 2: Another remaining comment concerns the fact that you seem to have used the data already in another study. This can be fine but you need to be more transparent about this in the paper (and not only in the response to the reviewers).**

RESPONSE: While we understand your concern, we hope this information clarifies any confusion and demonstrates the uniqueness of our data. Please note that our dataset has been composed in several steps. We have started with the sample of publicly traded companies from 11 European countries (Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden and Switzerland) for the period 2002–2011, uniquely gathered by one of the co-authors. We further expanded this dataset using the data from NRG Metrics database, adding five additional years of firm-level observations (2002–2016). We then collected additional data on firm-level internationalization from Thomson Reuters Eikon and additional country-level data on governance reforms from the World Bank. Therefore, after expanding and merging the original dataset used by one of the co-authors in her/his previous work, the final sample of the present paper is unique because the study period, firm population, and variables are substantially different from the previous work. Please also note that the author's name and related reference have been removed to preserve anonymity during the review process, but we will add the full citation to the accepted version of the paper to meet all of the transparency standards after acceptance.

**Comment 3: A final comment concerns your level of significance. With a p-value between 5 and 10% you should write that the hypothesis is TENTATIVELY or WEAKLY supported. The standard in the literature is 5%. Please avoid to overclaim.**

RESPONSE: As you suggested, we have modified our claims.

Thank you again for taking the time to review our manuscript and offer additional guidance. We hope that our revision fully addresses your remaining concerns, although we would be happy to make additional changes that you feel would further strengthen our work.

## Responses to Reviewer 2

**Opening Comment:** Dear authors, thank you this revision. I commend you for a thorough revision of the manuscript. At the same time, this revision awakes new concerns next to amplifying already existing ones.

RESPONSE: Many thanks for your kind feedback! We are pleased that you found our revision well executed. At the same time, we are sorry that some new concerns have arisen. We hope that we have fully addressed these concerns in the revised version of our work.

**Comment 1: Positioning and framing.** I appreciate to see that you have made a dedicated effort to write a new introduction for the paper. At the same time, there is a big disconnect between the new introduction of the paper and what the paper delivers. More specifically, the new introduction is very much centered around the role of pro-market reforms while the paper brings in the role of pro-market reforms only at the very end of the theorizing (and in a very unconvincing manner; see comment #3 below). At this stage, I am unsure how you could solve this issue going forward as I do not see a clear path given that I cannot grasp what is new in your paper.

RESPONSE: Thank you for pointing this out. We have revised the Introduction so as to remove the disconnect between it and the remaining part of the paper. We hope that the revised introduction better highlights the gaps in the literature and our study's contributions.

**Comment 2: Theory. Why BAM and not SEW?** One could make the same set of arguments and come up with the same predictions should s/he use SEW as guiding theory. Indeed, both your independent and moderating variables have been widely used by prior research using SEW as a guiding theory. The fact that this study focuses on dimensions (and relationships among such dimensions) that have been widely studied in the literature (despite focusing on different outcomes) challenges the novelty of this study.

RESPONSE: As our theory is about tradeoffs between different types of wealth, the mixed gamble perspective is very useful. However, in light of your comment, we have worked to more fully explain the mixed gamble perspective, and sharpen the theoretical contributions of our study.

**Comment 3: Conceptual model.** I am puzzled by the fact that you state in the response letters that you have removed the three-way interaction with pro-market reforms from your study while, at the same time, you still hypothesize for it (see H4) and test via some sort of a sub-sample analysis (see models 5-8 in Table 3). I do not understand how to reconcile the info featured in the response letters with what appears in your study. Neither am I sure how to interpret those results within a fixed effect analysis (given that pro-market reforms in the way you capture them do not vary with time across firms). Why didn't you hypothesize and test for a moderating role of pro-market reforms for the family ownership-internationalization relationship?

RESPONSE: Following the insightful suggestion of the Editor and Reviewer 1 to avoid the theorizing complexity and interpretation issues of three-way interactions between three

continuous variables, we test our H4a and H4b by conducting two-way interaction terms using the split sample (fast vs. gradual reforms) in the revised version of the paper. The two approaches (the two-way interaction analyses in the split sample vs. three-way interactions in the full sample) extract identical sets of the information from the data. By making this change and doing the split sample analyses, we believe our theoretical arguments and findings are much easier to comprehend. We also feel that the graphs depicting these relationships, which also include variance in family ownership, are much easier to understand and, in turn, offer a clearer contribution to the literature.

Regarding the interpretation of the results of the subsample analyses, please note that the speed of reforms varies substantially over time across firms in the subsample with fast speed of reforms (Mean=0.427; S.D.=0.164; Min.=0.119; Max.=0.881), and in the subsample with gradual speed of reforms (Mean=0.006; S.D.=0.021; Min.=0; Max.=0.104). In addition, as you can see in Models 5 to 8 of Table 3, we also control for the impact of speed of reforms on internationalization scale by including the *Speed of reforms* variable in both subsamples. Thus, interpretation of the regression coefficients is not affected in the sub-sample analyses. At the same time, the subsample analyses allow us to streamline our theoretical arguments and to better explain the results of the moderating hypotheses, avoiding the unnecessary complexities in theorizing and interpreting three-way interaction terms between three continuous variables.

Finally, Banalieva, Eddleston, and Zellweger (2015) have already unpacked the effect of pro-market reforms on family business behaviour. Therefore, building on their work, we decided to focus on the interplay between firm-, industry- and country-level factors that affect family business behaviour and, in doing so, to advance the existing debate in the literature.

**Comment 4: Fit between theorizing and analytical technique use. The choice between fixed and random-effects is typically dictated by the theory (e.g., within vs. between-firm effects; see Certo et al 2017). To me it is unclear whether you theorize between-firm effects or within-firm effects. From the arguments put forward in your hypothesis development it seems more the former (e.g., "...when negative performance gap is high..."). You should better describe what the level of your theorizing is and empirically test your model accordingly.**

RESPONSE: Thank you for pointing out this issue and the need for clarity. Please note that individual unobservable heterogeneity represents key theoretical and empirical concerns in our work (and generally in any family business study (Evert, Martin, McLeod, & Payne, 2016)). Accordingly, we adopted the fixed effects linear estimator to account for this important issue in all of our estimations. We added the following information in the empirical part of our paper to address your comment:

*The major empirical challenge in this paper is to estimate the effect of family influence on internationalization scale, controlling for individual unobservable heterogeneity in our sample. Internationalization scale is strongly characterized by unquantifiable factors including corporate strategy, organizational culture, norms and routines (Calvelli & Cannavale, 2019; Melin, 1992; Roth & Morrison, 1992; Surdu, Greve, & Benito, 2021). Because these factors are extremely difficult to quantitatively capture, we adopt the fixed effects (FE) linear estimator that allows us to incorporate them directly into our empirical model through an individual effect ( $\eta_i$ ) (Hsiao, 2007; Wooldridge, 2010), which controls for the unobservable heterogeneity across firms in our analysis.*

**Comment 5. For the plots showing predictive margins: are the 'differences between lines' (i.e., different values of family ownership) statistically different from each other? If not/yes, what can we conclude about your results?**

RESPONSE: Yes, they are statistically different from each other. This confirms the presence of the statistically significant moderating effects of historical performance gap and industry munificence on the internationalization scale of a firm at different levels of family ownership. This should now be clearer in our revision.

**Comment 6: Your independent variable is skewed to the left. As such, you have very little observations in you sample with a score of family ownership greater than 36%. So why do you plot predictive margins at values of 50% which are likely to be extremely rare in your data (this is also shown in the very wide confidence of intervals for such values)?**

RESPONSE: Thank you for this observation. Following your advice, in the revised version of the paper, we have limited our plots to 0%, 10% and 25% thresholds of family ownership, which is also in line with prior studies in the field (Bennedsen, Huang, Wagner, & Zeume, 2019; Calabrò, Minichilli, Amore, & Brogi, 2018; Faccio & Lang, 2002).

**Comment 7: Can you please check for non-linear effects (e.g., quadratic) for H1?**

RESPONSE: Yes – of course. We have checked for the non-linear effects by including the quadratic and cubic terms of family ownership in our model, but they were not statistically significant from zero.

**Comment 8: The interpretation of interaction effects in fixed-effect models is rather tricky as shown by Shaver (2019). Please follow his approach in calculating and plotting interaction effects in such models.**

RESPONSE: To comprehensively interpret the interaction effects in our paper, we followed the editorial from JIBS on the best practices for conducting and reporting hypothesis testing research (Meyer, van Witteloostuijn, & Beugelsdijk, 2017). We have added this citation to the empirical part of the paper and have followed their advice.

**Comment 9: Thanks for discussing the economic significance of your effects. At the same time, I am very concerned about it. The statistically significant relationships found in your study seem to be associated with very marginal contributions. The fact that you find statistically significant relationships with low economic significance may be because you have a large number of observations in your studies which, per se, tends to lead to many statistically significant (although economically irrelevant) relationships. I am not sure how you could best take care of this issue; maybe there is some additional analysis you can perform to rule out this explanation. At the same time, I am afraid that any solution won't really solve the problem that the economic significance of the observed relationships is extremely low.**

RESPONSE: Our baseline result from H1 suggests that the internationalization scale of a firm decreases by around 0.002% for each 1% increase in family ownership of a firm, corresponding to 0.02% and 0.05% drops in internationalization scale for firms with 10% and 25% of family ownership. These percentages correspond to around 2000 Euros and around 5000 Euros decrease in annual international sales for an average firm in our sample, accordingly. Even though these numbers do not seem that dramatic for an external observer, please note that we consider publicly traded companies who are constantly monitored by the different players of capital markets globally and, thus, even a relatively small fluctuation in international sales of a corporation can be perceived as a bad signal by the capital markets, potentially affecting its share price and performance predictions. Thus, we believe that the economic significance of our results is important and we hope you agree.

**Comment 10: While you mentioned that you use fixed-effect estimations, it is unclear which model you have used (e.g., linear regression, probit, etc.). It is important that the model chosen is in line with the nature of your DV (ratio).**

RESPONSE: Thank you for pointing out this need for further clarity. It is a linear fixed effects regression, as described in Hsiao (2007). We have now clarified this in the results section.

**Comment 11: In the response letters you mention that multilevel models are typically not used in non-experimental data studies. I cannot disagree more with this statement. There is a long tradition in IB research using multilevel models in non-experimental data (see, e.g., Peterson et al 2012 and all the studies that spurred from this article).**

RESPONSE: We are very sorry that we were not aware of this insightful paper on the importance of multilevel modelling in IB research. Thank you for this information. Accordingly, we have re-run our explanatory model accounting for the multilevel structure of the data with the help of multilevel linear modelling technique (Rabe-Hesketh & Skrondal, 2008) and obtained similar results to our main findings. The results of this check have been included in the robustness tests and added to the Supplemental Document as the following:

*Following prior research in international business literature (Peterson, et al., 2012), we have also re-run our explanatory model using the multilevel linear modelling technique (Rabe-Hesketh & Skrondal, 2008) accounting for the multilevel structure of the data (i.e., sampled firms are nested in industries, which are nested in countries). This final check, reported in Table S9, confirmed our principal findings.*

**Table S9.** Accounting for the multilevel structure of data

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Family ownership	-0.002 (0.001)	-0.002 (0.001)	-0.001 (0.003)	-0.001 (0.275)	-0.000 (0.371)

Controls	Yes	Yes	Yes	Yes	Yes
Random effects	Yes	Yes	Yes	Yes	Yes
Level 2 (Industry)					
Industry munificence	0.002 (0.680)	0.002 (0.672)	0.005 (0.482)	-0.010 (0.363)	-0.002 (0.906)
Controls	Yes	Yes	Yes	Yes	Yes
Random effects	Yes	Yes	Yes	Yes	Yes
Level 3 (Country)					
Speed of reforms	-0.023 (0.675)	-0.024 (0.663)	-0.024 (0.662)	-0.061 (0.034)	-0.064 (0.009)
Controls	Yes	Yes	Yes	Yes	Yes
Random effects	Yes	Yes	Yes	Yes	Yes
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Family ownership*Historical performance gap		0.005 (0.002)		0.010 (0.000)	
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Time FE	Yes	Yes	Yes	Yes	Yes
Constant	0.141 (0.048)	0.141 (0.047)	0.136 (0.058)	0.006 (0.898)	-0.002 (0.969)
Log Restricted Likelihood	851.177	851.703	853.197	384.816	383.928
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Notes: This table presents the coefficients and p-values (in parentheses) of the multilevel linear regressions with robust standard errors.

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**SUPPLEMENTARY DOCUMENT TO**

**“FIGHT OR FLIGHT? UNDERSTANDING FAMILY FIRM**

**INTERNATIONALIZATION WHEN THE RULES OF THE GAME CHANGE”**

This document contains additional information related to the manuscript titled “Fight or flight? Understanding family firm internationalization when the rules of the game change”. The document is composed of three sections:

- SECTION I. Detailed description of the sample used.
- SECTION II. Definitions and average values for all components of the speed of pro-market reforms proxy.
- SECTION III. Results of the robustness tests.

## SECTION I. SAMPLE DESCRIPTION

**Table S1** Sample distribution by country and industry

**Panel A** Distribution by country

Country	Percentage
Belgium	4.71
Denmark	4.54
Finland	5.27
France	15.86
Germany	19.98
Italy	10.05
The Netherlands	7.89
Norway	6.79
Spain	6.58
Sweden	9.87
Switzerland	8.46
<b>Total</b>	<b>100.00</b>

Notes: United Kingdom has been not included in our sample because it follows Anglo-Saxon corporate governance model (Aguilera & Jackson, 2003), while we focus only on listed firms following the European corporate governance model (Enriques & Volpin, 2007), assuring the homogeneity of our sample.

**Panel B** Distribution by industry (based on the 2-digit Datastream industry codes)

Industry	Percentage
Aerospace	0.22
Apparel	1.25
Automotive	2.62
Beverages	1.17
Chemicals	4.74
Construction	6.39
Diversified	2.79
Drugs & Healthcare	5.61
Electrical	2.97
Electronics	10.83
Financial	1.22
Food	3.78
Machinery	8.67
Metal producers	1.63
Metal product manufactures	2.38
Oil & Gas	3.1
Paper	2.71
Printing & Publishing	1.74
Recreation	3.18
Retailers	4.07
Textiles	0.8
Tobacco	0.16

Transportation	4.85
Utilities	5.88
Others	17.25
<b>Total</b>	<b>100.00</b>

## SECTION II. DESCRIPTION OF SPEED OF PRO-MARKET REFORMS' COMPONENTS

**Table S2** Definition of World Governance Indicators

Indicator	Description
Regulatory Quality	It measures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. It ranges from 0.64 (lowest value) to 1.98 (highest value)
Rule of Law	It measures perceptions of the extent to which agents have confidence in and abide by the rules of society, and particularly the quality of contract enforcement, property rights, the police, the courts, as well as the likelihood of crime and violence. It ranges from 0.27 (lowest value) to 2.10 (highest value).
Corruption Control	It measures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the "capture" of the state by elites and private interests. It ranges from -0.03 (lowest value) to 2.47 (highest value).

**Table S3** Summary statistics of World Governance Indicators

Country	Statistic	Regulatory quality	Rule of law	Corruption control
Belgium	Mean	1.30	1.39	1.51
	S.D.	0.07	0.07	0.11
	Min.	1.16	1.24	1.31
	Max.	1.42	1.52	1.67
Denmark	Mean	1.78	1.95	2.36
	S.D.	0.10	0.07	0.08
	Min.	1.58	1.87	2.21
	Max.	1.93	2.10	2.47
Finland	Mean	1.80	1.98	2.29
	S.D.	0.09	0.06	0.10
	Min.	1.55	1.91	2.16
	Max.	1.88	2.10	2.46
France	Mean	1.20	1.44	1.39
	S.D.	0.09	0.07	0.08
	Min.	1.02	1.24	1.23
	Max.	1.31	1.52	1.53

Germany	Mean	1.58	1.69	1.81
	S.D.	0.09	0.07	0.06
	Min.	1.48	1.61	1.74
	Max.	1.82	1.86	1.94
Italy	Mean	0.86	0.45	0.21
	S.D.	0.14	0.12	0.17
	Min.	0.64	0.27	-0.03
	Max.	1.09	0.76	0.55
The Netherlands	Mean	1.77	1.81	2.07
	S.D.	0.07	0.06	0.08
	Min.	1.66	1.74	1.88
	Max.	1.98	1.98	2.17
Norway	Mean	1.53	1.96	2.15
	S.D.	0.14	0.05	0.11
	Min.	1.22	1.87	1.91
	Max.	1.70	2.03	2.29
Spain	Mean	1.11	1.12	1.04
	S.D.	0.18	0.11	0.26
	Min.	0.75	0.90	0.52
	Max.	1.37	1.28	1.39
Sweden	Mean	1.77	1.96	2.23
	S.D.	0.13	0.06	0.06
	Min.	1.44	1.81	2.02
	Max.	1.91	2.04	2.31
Switzerland	Mean	1.67	1.86	2.09
	S.D.	0.11	0.08	0.05
	Min.	1.50	1.73	2.01
	Max.	1.91	1.99	2.15
Full sample	Mean	1.46	1.57	1.68
	S.D.	0.32	0.45	0.62
	Min.	0.64	0.27	-0.03
	Max.	1.98	2.10	2.47

### SECTION III. ROBUSTNESS TESTS

To check the sensitivity of our principal findings, we conducted several robustness tests.

First, we have included the proxy of *family management* (estimated as number of family members on top managerial positions of a firm) following prior studies (Kotlar, De Massis, Frattini, Bianchi, & Fang, 2013; Sanchez- Bueno, Muñoz- Bullón, & Galan, 2019), to account for the

impact of family involvement in management on the internationalization scale of a firm. This additional check produces results qualitatively and quantitatively similar in their magnitude and significance level to our main findings (see Table S4). Then, we have also re-estimated our explanatory model including in our model the proxy of *industry dynamism* (estimated as the average of the standard errors of the regression slopes for the sales regression equations used in calculating industry munificence over a 5-year period) (Baù, Chirico, Pittino, Backman, & Klaesson, 2019; Chirico, et al., 2018) that might affect family firms' internationalization scale. Looking at the results of this check in Table S5, we observe that all our hypotheses are confirmed.

Furthermore, our explanatory model has been re-estimated controlling for *Speed of reversals* (estimated as the original speed variable with country-year observations having positive values set to zero) to control for the possible effect of speed of pro-market reversals (Banalieva, Eddleston, & Zellweger, 2015; Dau, Purkayastha, & Eddleston, 2020; Heybey & Murrell, 1999). We continue finding support for our main findings (see Table S6). After that, we have accounted for the *Scope of reforms* (calculated as the average value of the WGI index that capture major dimensions of doing business in a country<sup>1</sup>: Regulatory Quality, Rule of Law and Control of Corruption) to control for the initial conditions in the country-level institutional environment (Banalieva, et al., 2015; Heybey & Murrell, 1999). This check has also confirmed our main findings (see Table S7). As the final check, we have re-estimated our main explanatory model removing from our sample all the domestic firms (those that reported zero in their internationalization scale, around 12% of the sample) (Kosová, 2010). This check, reported in Table S8, did not alter our principal findings.

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<sup>1</sup> We thank the guest editor and reviewers for this insightful suggestion. It is also important to mention that our principal findings remain unchanged upon inclusion of the additional WGI dimensions that capture country-level democratic freedom, political stability and government effectiveness.

Finally, following prior research in international business literature (Peterson, Arregle, & Martin, 2012), we have also re-run our explanatory model using the multilevel linear modelling technique (Rabe-Hesketh & Skrondal, 2008) accounting for the multilevel structure of the data (i.e., sampled firms are nested in industries, which are nested in countries). This final check, reported in Table S9, confirmed our principal findings.

In summary, all of the afore-mentioned checks largely support our main findings.

**Table S4. Inclusion of the family management**

Model	(1)	(2)	(3)	(4)	(5)
D.V.: Internationalization scale	Full sample	Full sample	Full sample	Fast speed of reforms' subsample	Fast speed of reforms' subsample
Family ownership	-0.002 (0.099)	-0.002 (0.109)	-0.002 (0.160)	-0.001 (0.304)	-0.001 (0.364)
Family management	-0.061 (0.369)	-0.061 (0.373)	-0.062 (0.359)	0.035 (0.504)	0.032 (0.507)
Historical performance gap	-0.002 (0.975)	-0.009 (0.857)	-0.001 (0.990)	-0.251 (0.060)	-0.166 (0.175)
Industry munificence	0.003 (0.765)	0.003 (0.759)	0.005 (0.576)	-0.008 (0.540)	0.000 (0.977)
Speed of reforms	-0.029 (0.502)	-0.030 (0.488)	-0.029 (0.493)	-0.096 (0.243)	-0.101 (0.220)
Family ownership x Historical performance gap		0.006 (0.094)		0.010 (0.032)	
Family ownership x Industry munificence			-0.001 (0.002)		-0.001 (0.068)
Controls	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Constant	8.250 (0.000)	8.444 (0.000)	8.488 (0.000)	0.113 (0.798)	0.090 (0.841)
<i>N</i>	3526	3526	3526	957	957

*Notes:* This table presents the coefficients and p-values of the linear fixed-effects regressions with robust standard errors.

**Table S5.** Inclusion of the industry dynamism

Model	(1)	(2)	(3)	(4)	(5)
D.V.: Internationalization scale	Full sample	Full sample	Full sample	Fast speed of reforms' subsample	Fast speed of reforms' subsample
Family ownership	-0.002 (0.054)	-0.002 (0.060)	-0.002 (0.097)	-0.001 (0.314)	-0.001 (0.387)
Industry dynamism	0.013 (0.132)	0.013 (0.145)	0.016 (0.069)	0.020 (0.170)	0.023 (0.130)
Historical performance gap	-0.002 (0.963)	-0.009 (0.850)	-0.002 (0.970)	-0.280 (0.029)	-0.199 (0.084)
Industry munificence	0.005 (0.611)	0.005 (0.610)	0.008 (0.393)	-0.010 (0.411)	-0.000 (0.987)
Speed of reforms	-0.021 (0.634)	-0.022 (0.618)	-0.021 (0.637)	-0.096 (0.247)	-0.098 (0.233)
Family ownership x Historical performance gap		0.005 (0.078)		0.010 (0.017)	
Family ownership x Industry munificence			-0.002 (0.000)		-0.001 (0.016)
Controls	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Constant	8.916 (0.000)	9.087 (0.000)	9.380 (0.000)	0.083 (0.853)	0.047 (0.919)
<i>N</i>	3526	3526	3526	957	957

*Notes:* This table presents the coefficients and p-values of the linear fixed-effects regressions with robust standard errors.

**Table S6.** Inclusion of the speed of pro-market reversals

Model	(1)	(2)	(3)	(4)	(5)
D.V.: Internationalization scale	Full sample	Full sample	Full sample	Fast speed of reforms' subsample	Fast speed of reforms' subsample
Family ownership	-0.002 (0.054)	-0.002 (0.060)	-0.002 (0.091)	-0.001 (0.347)	-0.001 (0.411)
Historical performance gap	0.002 (0.967)	-0.006 (0.911)	0.003 (0.950)	-0.257 (0.051)	-0.172 (0.156)
Industry munificence	0.003 (0.737)	0.003 (0.731)	0.006 (0.550)	-0.008 (0.561)	0.001 (0.959)
Speed of reforms	-0.019 (0.668)	-0.020 (0.650)	-0.019 (0.664)	-0.103 (0.197)	-0.107 (0.180)
Speed of reversals	-0.007 (0.575)	-0.007 (0.586)	-0.007 (0.556)	-0.577 (0.556)	-0.412 (0.556)
Family ownership x Historical performance gap		0.006 (0.092)		0.010 (0.032)	
Family ownership x Industry munificence			-0.001 (0.002)		-0.001 (0.071)
Controls	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Constant	8.063 (0.000)	8.261 (0.000)	8.296 (0.000)	0.115 (0.794)	0.091 (0.839)
<i>N</i>	3526	3526	3526	957	957

*Notes:* This table presents the coefficients and p-values of the linear fixed-effects regressions with robust standard errors.

**Table S7.** Inclusion of the scope of pro-market reforms

Model	(1)	(2)	(3)	(4)	(5)
D.V.: Internationalization scale	Full sample	Full sample	Full sample	Fast speed of reforms' subsample	Fast speed of reforms' subsample
Family ownership	-0.002 (0.054)	-0.002 (0.060)	-0.002 (0.090)	-0.001 (0.347)	-0.001 (0.411)
Historical performance gap	0.001 (0.986)	-0.007 (0.892)	0.002 (0.970)	-0.257 (0.051)	-0.172 (0.156)
Industry munificence	0.003 (0.757)	0.003 (0.751)	0.005 (0.571)	-0.008 (0.561)	0.001 (0.959)
Speed of reforms	-0.025 (0.578)	-0.026 (0.563)	-0.025 (0.570)	-0.103 (0.197)	-0.107 (0.180)
Scope of reforms	6.854 (0.014)	6.848 (0.014)	6.739 (0.016)	9.092 (0.293)	8.132 (0.357)
Family ownership x Historical performance gap		0.006 (0.088)		0.010 (0.032)	
Family ownership x Industry munificence			-0.001 (0.002)		-0.001 (0.071)
Controls	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Constant	-2.941 (0.537)	-2.732 (0.566)	-2.523 (0.597)	-14.513 (0.294)	-12.992 (0.358)
<i>N</i>	3526	3526	3526	957	957

*Notes:* This table presents the coefficients and p-values of the linear fixed-effects regressions with robust standard errors.

**Table S8.** Exclusion of the domestic firms

Model	(1)	(2)	(3)	(4)	(5)
D.V.: Internationalization scale	Full sample	Full sample	Full sample	Fast speed of reforms' subsample	Fast speed of reforms' subsample
Family ownership	-0.002 (0.062)	-0.002 (0.068)	-0.002 (0.110)	-0.001 (0.342)	-0.001 (0.427)
Historical performance gap	0.019 (0.689)	0.010 (0.837)	0.020 (0.676)	-0.149 (0.140)	-0.064 (0.501)
Industry munificence	0.007 (0.348)	0.007 (0.343)	0.011 (0.174)	-0.008 (0.591)	0.002 (0.912)
Speed of reforms	-0.039 (0.374)	-0.040 (0.361)	-0.039 (0.373)	-0.065 (0.408)	-0.069 (0.377)
Family ownership x Historical performance gap		0.006 (0.088)		0.008 (0.069)	
Family ownership x Industry munificence			-0.001 (0.001)		-0.001 (0.092)
Controls	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
Constant	0.507 (0.152)	0.509 (0.151)	0.492 (0.163)	0.227 (0.636)	0.188 (0.700)
<i>N</i>	3115	3115	3115	841	841

*Notes:* This table presents the coefficients and p-values of the linear fixed-effects regressions with robust standard errors.

**Table S9.** Accounting for the multilevel structure of the data

Model	(1)	(2)	(3)	(4)	(5)
D.V.: Internationalization scale	Full sample	Full sample	Full sample	Fast speed of reforms' subsample	Fast speed of reforms' subsample
Level 1 (Firms)					
Historical performance gap	0.008 (0.859)	0.001 (0.979)	0.009 (0.843)	-0.252 (0.033)	-0.170 (0.215)
Family ownership	-0.002 (0.001)	-0.002 (0.001)	-0.001 (0.003)	-0.001 (0.275)	-0.000 (0.371)
Controls	Yes	Yes	Yes	Yes	Yes
Random effects	Yes	Yes	Yes	Yes	Yes
Level 2 (Industry)					
Industry munificence	0.002 (0.680)	0.002 (0.672)	0.005 (0.482)	-0.010 (0.363)	-0.002 (0.906)
Controls	Yes	Yes	Yes	Yes	Yes
Random effects	Yes	Yes	Yes	Yes	Yes
Level 3 (Country)					
Speed of reforms	-0.023 (0.675)	-0.024 (0.663)	-0.024 (0.662)	-0.061 (0.034)	-0.064 (0.009)
Controls	Yes	Yes	Yes	Yes	Yes
Random effects	Yes	Yes	Yes	Yes	Yes
Interactions					
Family ownership*Historical performance gap		0.005 (0.002)		0.010 (0.000)	
Family ownership*Industry munificence			-0.001 (0.000)		-0.001 (0.016)
Time FE	Yes	Yes	Yes	Yes	Yes
Constant	0.141 (0.048)	0.141 (0.047)	0.136 (0.058)	0.006 (0.898)	-0.002 (0.969)
Log Restricted Likelihood	851.177	851.703	853.197	384.816	383.928
<i>N</i>	3526	3526	3526	957	957

Notes: This table presents the coefficients and p-values (in parentheses) of the multilevel linear regressions with robust standard errors.

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**FIGHT OR FLIGHT? UNDERSTANDING FAMILY FIRM  
INTERNATIONALIZATION WHEN THE RULES OF THE GAME CHANGE**

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**Keywords:** family firms, internationalization, business risk, market risk, mixed gambles,

dynamic institution-based view

# **FIGHT OR FLIGHT? UNDERSTANDING FAMILY FIRM INTERNATIONALIZATION WHEN THE RULES OF THE GAME CHANGE**

## **ABSTRACT**

Building on the mixed gamble perspective, we examine family versus nonfamily firms' propensity to increase or decrease their internationalization in response to different sources of risk. Our framework explains how a firm's mixed gamble calculus of internationalization can change as it adjusts to business, industry, and institutional circumstances. Using an unbalanced panel of 1031 publicly traded firms from 11 European countries over a 15-year period, our study offers unique insight on why firms, depending on their degree of family ownership, calculate the mixed gamble of internationalization differently and why they vary in their decisions to expand or withdraw from internationalization. Our study makes an important step toward a better understanding of internationalization strategy in family firms, clarifying the mechanisms behind whether they choose to protect and 'fight' for their domestic market thereby reducing their internationalization scale or prefer to escape from the uncertainty and turbulence and 'flee' toward international markets.

**Keywords:** family firms, internationalization, business risk, industry risk, mixed gambles, speed of reforms

## INTRODUCTION

As national markets become more saturated and competition increasingly globalizes, internationalization has become a critical strategy for both family and nonfamily firms (Alessandri, Cerrato, & Eddleston, 2018; Pongelli, Calabrò, Quarato, Minichilli, & Corbetta, 2021). Internationalization provides firms with a variety of potential opportunities (e.g., Barkema & Vermeulen, 1998; Hitt, Hoskisson & Ireland, 1997), but such opportunities also entail considerable challenges that increase risk (Hitt, Tihanyi, Miller & Connelly, 2006). Unlike nonfamily firms that focus primarily on economic goals, family firms often weigh the risks to their financial wealth and socioemotional wealth (SEW) when determining their internationalization strategy (Alessandri, Cerrato & Eddleston, 2018; Gomez-Mejia et al., 2010). In recognizing this tradeoff between the benefits and costs of internationalization, scholars often hypothesize that family firms *should* have a lower scale of internationalization than nonfamily firms; however, findings have been inconsistent (Arregle, Duran, Hitt, & van Essen, 2017; Pukall & Calabro, 2014). This suggests that contingency factors should be considered to determine when family firms differ in how they see the benefits and costs of internationalization and thus, may increase or decrease their scale of internationalization.

To explain the tradeoff between the perceived benefits and costs of internationalization, we rely on the mixed gamble perspective, which is an extension of the behavioral agency model (BAM) (Alessandri, et al., 2018; Debellis, Rondi, Plakoyiannaki, & De Massis, 2021; Fuad, Thakur, & Sinha, 2021; Gómez-Mejía, Patel, & Zellweger, 2018; Gomez–Mejia, et al., 2014; Kraus, Mensching, Calabrò, Cheng, & Filser, 2016; Martin, Gómez-Mejía, & Wiseman, 2013). The mixed gamble perspective captures how firms weigh the need to preserve their current wealth endowment with the desire to pursue prospective wealth when making strategic decisions (Martin, et al., 2013). In considering possible contingencies that may alter the mixed gamble calculus of family and nonfamily firms, research often focuses on factors that may

increase or decrease perceptions of risk. For example, while some studies show that performance vulnerabilities push family firms to increase their internationalization, other studies show that an excess in financial resources can cause family firms to decrease their internationalization (Alessandri et al., 2018; Debellis, Rondi, Plakoyiannaki & DeMassis, 2021; Gomez-Mejia et al., 2014; Xu & Hitt, 2020). Another source of risk that can alter firm strategy is industry munificence (also referred to as environmental munificence, i.e. the availability of critical external resources to support growth within an industry (Buckley & Ghauri, 1993; Sirmon, Hitt, and Ireland, 2007). In an effort to decrease liabilities associated with dwindling growth opportunities in an industry, firms often increase their internationalization (Faccio, Larry & Young, 2001; Khanna & Palepu, 2000).

However, while some studies suggest that a strong versus weak performance gap can change family and nonfamily firms' internationalization strategy (Alessandri, et al., 2018; Gómez-Mejía, Makri, & Kintana, 2010) and industry munificence may alter the scale of internationalization of family firms (Zhou, Han, & Gou, 2019), such studies have assumed stability and homogeneity among these firms' domestic market (Dau, Purkayastha, & Eddleston, 2020; Eddleston, Sarathy, & Banalieva, 2019). Yet, research has long acknowledged that the success of any internationalization strategy depends on a firm's domestic country context (e.g., Eddleston, Sarathy & Banalieva, 2019; Narula & Verbeke, 2015). Therefore, what happens when the 'rules of the game' in a firm's domestic market change? Do the risks associated with institutional reforms amplify family versus nonfamily firms' scale of internationalization in response to performance vulnerability and industry munificence? Which firms lessen their internationalization in an effort to focus on protecting and '*fighting*' for their domestic market? And which firms respond to reforms in their domestic market by increasing their internationalization as an escape from the turbulence; a '*flight*' response? In aiming to more fully elucidate when family firms view the rewards associated

with internationalization as worth the risks, we thus examine the role of speed of reforms in a domestic market as an important institutional-level aspect of risk.

Our study aims to answer these questions by drawing from the mixed gamble perspective to offer a more holistic framework that considers how sources of risk (i.e., business, industry, institutional) shape family versus nonfamily firms' internationalization, whereby we focus on a firm's degree of family ownership. As such, our study contributes to research on internationalization by demonstrating the importance of different sources and types of risk in understanding why firms vary in their internationalization and how their response to business and industry risk can alter with rapid changes in institutional pro-market reforms. Our study introduces historical performance gap and industry munificence as two important contingency factors influencing the tradeoff between the desire to preserve the family's current SEW and the desire to enhance prospective financial wealth when deciding whether to increase or decrease internationalization, and how the change in pro-market reforms in a firm's domestic market plays an important role, thereby illuminating some important boundary conditions to the mixed gamble logic as applied to family firm internationalization strategy.

Our study contributes to the mixed gamble perspective by highlighting how the speed of reforms in an institutional environment can amplify family firms' framing of gains and losses, thereby impacting their internationalization scale. Thus, as the 'rules of the game' change, so too does firms' framing of gains and losses in mixed gambles across institutional contexts characterized by different risks. Moreover, we contribute to research that seeks to understand heterogeneity in family firms' internationalization by developing and testing a framework that explains why rapid changes in their domestic institutional environment affect the tradeoff between the desire to preserve the family's current SEW and the desire to enhance prospective financial wealth amidst various levels of historical performance gap and industry munificence.

Finally, by examining the internationalization scale of firms over time, our study reveals

how a firm's mixed gamble calculus of internationalization can change as it adjusts to its circumstances, thus explaining why firms vary in internationalization expansion and withdrawal. Indeed, few studies have sought to explain why family firms decide to decrease their internationalization (Arregle, Duran, Hitt, & van Essen, 2017; Dau, Purkayastha, et al., 2020). Yet, there are many family firms, for example, that dramatically decreased their internationalization during our study's time frame. Between 2002 and 2016, Sodexo's (France) foreign sales to total sales decreased by 21%, Arcelormittal SA's (Luxembourg) decreased by 41%, and Roche Holdings's (Switzerland) decreased by 26%, for example. By developing and testing a holistic framework that considers business-, industry- and institutional-level factors (corresponding to different sources of risk), we offer unique insight into why firms, depending on their degree of family ownership, calculate the mixed gamble of internationalization differently and why their decision to expand or withdraw from internationalization vary over time.

We validate our theoretical framework across different institutional environments using a sample of 1031 publicly listed firms from 11 European countries over the period of 2002-2016. Our analyses are robust after controlling for firm-level unobservable heterogeneity, potential sample selection problems, alternative variable definitions, and including additional control variables. As such, our study makes an important step toward a better understanding of internationalization strategy in family firms, clarifying the mechanisms behind whether they choose to protect and 'fight' for their domestic market or prefer to 'flee' from the uncertainty and turbulence by increasing their internationalization.

## **THEORY AND HYPOTHESES**

### **The Mixed Gamble of Internationalization: Theoretical Framework**

The mixed gamble perspective has recently been extended to the international business literature to explain why family and nonfamily firms vary in their scale of internationalization

(Debellis, et al., 2021). Building on the work of Bromiley (2009), the mixed gamble perspective captures how firms weigh the need to protect current wealth with the desire to pursue prospective wealth when making strategic decisions (Martin, et al., 2013). It highlights how strategic decisions, like internationalization, rarely involve win-win or lose-lose outcomes, but instead, tend to involve the loss of something of value in an effort to gain something else that could be more valuable in the future (Alessandri, et al., 2018). In family firms, wealth includes financial as well as a nonfinancial form of affective wealth, referred to as SEW (Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007). SEW represents an important affective stock that family firms are highly motivated to protect, even at the expense of forgoing significant prospective financial gains (for a review, see Gomez-Mejia, Cruz, Berrone, and De Castro (2011); Hoskisson, Chirico, Zyung, and Gambeta (2016). As such, when deciding whether to increase or decrease internationalization, family firms are likely to weigh the costs and benefits to their current SEW and prospective financial wealth in tandem. In contrast, nonfamily firms are less burdened by SEW concerns and thus, their primary reference point when making strategic decisions is financial wealth (Berrone, Cruz, & Gomez-Mejia, 2012; Gomez-Mejia, et al., 2011).

The mixed gamble perspective is an appropriate framework to apply to internationalization because expanding abroad offers firms the opportunity to increase revenues and/or decrease costs (Buckley & Ghauri, 2004; Gallo & Sveen, 1991; Hitt, Hoskisson, & Kim, 1997), but it also presents significant challenges because international operations consume more resources than operating in one's domestic market (Arregle, Naldi, Nordqvist, & Hitt, 2012; Hitt, Tihanyi, Miller, & Connelly, 2006). Further, the risks of internationalization are likely to be greater for family firms because it challenges family control, poses managerial challenges that can threaten the family's current SEW, and often requires changes that oppose the family firm's traditional methods of operation and historical roots (Alessandri, et al., 2018; Gómez-Mejía, et

al., 2010; Zahra, 2012). Thus, to fully understand the mixed gamble calculus of family versus nonfamily firms' internationalization, it is important to consider the various layers of risk that likely shape their scale of internationalization.

For example, studies have shown that business risk associated with a negative performance gap alters the degree to which family firms pursue strategic investments' association with R&D (Gomez–Mejia, et al., 2014), acquisitions (Gómez-Mejía, et al., 2018), and IPOs (Kotlar, Signori, De Massis, & Vismara, 2018). Additionally, the international business literature has long acknowledged how market conditions (Olibe, Michello, & Thorne, 2008) and institutional reforms (Garrett & Lange, 1995) are potential sources of risk that influence internationalization. Accordingly, we develop a holistic framework that considers how institutional risk amplifies the effect of business risk (i.e., historical performance gap) and industry risk (i.e., industry munificence) on family and nonfamily firms' internationalization. To use a gambling analogy, we go beyond the preponderance of mixed gamble research that has focused on a firm's 'hand of cards' (i.e., business risk) to consider their competitors' cards (i.e., industry risk) and the rules set by the house (i.e., institutional risk).

We begin by drawing from the mixed gamble perspective to argue that historical performance gap and industry munificence modify how firms, depending on their degree of family ownership, frame gains and losses associated with internationalization. Then, integrating the dynamic institution-based view (Banalieva et al., 2015), we propose that a domestic country's speed of reforms alters how historical performance gap and industry munificence affect family versus nonfamily firms' scale of internationalization. As such, our framework emphasizes how the speed with which the 'rules of the game' change (institutional-level) alters whether risk associated with a performance gap (firm-level) and industry munificence (industry-level) promote (i.e., *fleeing* response) or discourage (i.e., *fighting* response) firms' internationalization. Our theoretical model is presented in Figure 1.

*Insert Figure 1 about here*

### **Family Ownership and Internationalization**

We propose that family control through a family's ownership stake in the firm negatively influences a firm's propensity to internationalize. Because in family firms the wealth endowment includes financial wealth as well as SEW, the risks that internationalization poses to their current SEW are likely to limit their scale of internationalization (Alessandri, et al., 2018; Gómez-Mejía, et al., 2010; Pongelli, et al., 2021). Extending the mixed gamble perspective to the study of family and nonfamily firms' internationalization, Alessandri et al. (2018) explained that while internationalization may offer potential financial benefits thanks to increased prospective revenues and/or decreased prospective costs for family firms, obtaining these benefits presents challenges that make internationalization an inherently risky endeavor. With a high level of family ownership, the family will likely perceive internationalization activities as posing a serious hazard to the family's *current SEW* in terms of challenging their traditional methods of operations and historical foundations, threatening family control, diverting resources from domestic business lines, and creating dependence on external sources of specialized human and finance capital (Arregle, et al., 2017; De Massis, Frattini, Majocchi, & Piscitello, 2018; Gómez-Mejía, et al., 2010). As family ownership increases, expanding the internationalization scale is thus likely to be perceived from a loss/cost perspective (placing current SEW at risk, while also requiring significant resource commitments with uncertain financial returns) rather than a gain/benefit perspective (the potential to enhance both SEW and prospective financial wealth). Therefore, as the level of family ownership increases, we expect that the perceived costs related to current SEW will take precedence over the prospective financial-related benefits that could accrue from increasing internationalization, thereby lessening their scale of internationalization.

Conversely, firms with a lower degree of family ownership, and especially nonfamily

firms (i.e., firms with no family ownership), are under greater pressure to maximize prospective financial earnings and have lower concerns for SEW losses, which makes them more willing to trade off risks to their current SEW for the potentially higher financial returns from internationalization (Alessandri et al., 2018). Less family ownership allows these firms to focus more on the prospective financial gains from internationalization activities and not worry about potential losses to SEW. This is consistent with the vast amount of empirical research noting the unwillingness of family firms to internationalize and the greater scale of internationalization of nonfamily firms vis-à-vis their family counterparts (Alessandri, Cerrato, & Eddleston, 2017; Arregle, et al., 2012; Duran, Kostova, & van Essen, 2017; Hennart, Majocchi, & Forlani, 2017). Therefore, the trade-off between current SEW losses and prospective financial wealth becomes more salient as family ownership increases, with a negative effect on a firm's propensity to increase its internationalization scale. Formally stated:

*Hypothesis 1: Family ownership has a negative impact on the internationalization scale of a firm.*

### **The Moderating Role of Historical Performance Gap**

Hypothesis 1 establishes a baseline for understanding family versus nonfamily firms' scale of internationalization based on the inherent trade-off between prospective financial gains and potential losses to current SEW when venturing abroad. However, to advance our understanding of the role of family ownership in promoting or discouraging firm internationalization it is necessary to consider how the performance of the firm affects how such tradeoffs are framed and evaluated. Therefore, we analyze the contingency role of historical performance gap, which we predict influences how family owners perceive losses and gains linked to internationalization. Specifically, we propose that the relationship between family ownership and internationalization scale is moderated by historical performance gap, whereby a negative historical performance gap alleviates the detrimental effect of family

ownership on internationalization, while a positive historical performance gap accentuates such detrimental effects.

Research applying the mixed gamble perspective emphasizes how business risk associated with firm performance alters whether family firms prioritize their current SEW or prospective financial wealth (Alessandri, et al., 2018; Gómez-Mejía, et al., 2018; Gomez–Mejia, et al., 2014). For example, whether a family firm is experiencing performance hazard (Kotlar, De Massis, Fang, & Frattini, 2014) or performance slack (Alessandri, et al., 2018) influences whether more emphasis is placed on potential gains or losses to their prospective financial wealth or current SEW in making a strategic decision. When the historical performance gap is high (i.e., when business risk is low), and thus a family firm is experiencing financial prosperity, the perceived trade-off between financial and SEW utilities leads family firms to be risk averse and to prioritize protecting their current SEW over seeking prospective financial gains (Alessandri, et al., 2018; Gómez-Mejía, et al., 2018). In their study on acquisitions, Gómez-Mejía, et al. (2018, p.1375) explained that “in such a comfortable position, family owners should be risk averse and strongly discount the promised future financial gains tied to strategic change (and) emphasize the sure losses to SEW tied to such change”. Indeed, because excess financial resources lead family firms to be satisfied with their firm’s financial performance and focus on protecting current SEW, research suggests that high organizational slack decreases their internationalization (Alessandri, et al., 2018). Thus, as family ownership increases, a higher positive performance gap will encourage families to further focus on potential costs to their SEW from increasing internationalization, thereby making the perceived prospective financial benefits from internationalization less appealing.

However, with a negative historical performance gap (i.e., business risk is high), the trade-off between financial and SEW utilities is less stringent because the need to meet the firm’s financial obligations is a necessary condition for family owners to enjoy SEW and financial

utilities in tandem (Gómez-Mejía, et al., 2018; Gomez–Mejia, et al., 2014). That is, the need for prospective financial improvement to offset losses encourages family firms to pursue risky strategies, even if such strategies jeopardize their current SEW. According to the mixed gamble perspective, as family ownership increases, a higher negative performance gap will thus render prospective financial benefits from internationalization as more appealing than the potential costs to their SEW. Indeed, when a negative performance gap is very high there is a concrete risk of bankruptcy, which would entail the loss of all SEW (Chirico, Criaco, et al., 2020). As such, family owners become less concerned about potential losses to their SEW and instead prioritize prospective financial gains in order to avoid the risk of bankruptcy. Therefore, a negative performance gap alters the mixed gamble calculus of internationalization for family firms such that the potential financial benefits of increasing internationalization outweigh the potential costs to their current SEW. These arguments lead to the following hypothesis:

*Hypothesis 2: Historical performance gap moderates the negative relationship between family ownership and the scale of internationalization, such that the negative effect of family ownership on internationalization will become more (less) negative as the level of positive (negative) historical performance gap increases.*

### **The Moderating Role of Industry Munificence**

To further improve our understanding of the role of family ownership in enhancing or hindering firm internationalization, we now consider the role of the industry in which the trade-off between prospective financial gains and current SEW losses are framed and evaluated under the mixed gamble logic. Organizations depend on their industry to provide resources to fulfill their mission and to operate their various activities (Chirico, Criaco, et al., 2020; De Massis, Kotlar, Wright, & Kellermanns, 2018; Pfeffer & Salancik, 1978). However, industries vary with respect to the types and amounts of resources available to a firm (Dess & Beard, 1984). Accordingly, we analyze the contingency role of industry munificence, which we predict influences how family owners perceive losses and gains

linked to internationalization scale decisions. This is consistent with prior research showing that low industry munificence often serves as a cue for firms to change their current strategy (Buckley & Ghauri, 1993). For example, in an effort to decrease liabilities stemming from a lack of growth opportunities in an industry, firms often increase their internationalization (Faccio, Larry, & Young, 2001; Khanna & Palepu, 2000; Muñoz-Bullon, Sanchez-Bueno, & Suárez-González, 2018). We therefore propose that the negative relationship between family ownership and internationalization is moderated by industry munificence, whereby low industry munificence (i.e., high industry risk) alleviates the potential detrimental effects of family ownership on internationalization scale, while high industry munificence (i.e., low industry risk) accentuates such detrimental effects.

Industry munificence, also referred to as environmental munificence, reflects the abundance of resources and opportunities to support growth within an industry (Baù, Chirico, Pittino, Backman, & Klaesson, 2019; Chirico, Criaco, et al., 2020; Karim, Carroll, & Long, 2016). As family ownership increases, a low munificence industry will render the prospective financial benefits from internationalization as more appealing while the desire to prioritize the protection of current SEW-related diminishes (*vis-à-vis* high munificent environments). In other words, as family ownership increases and the firm is facing a tougher industry environment characterized by low growth opportunities, family owners will likely prioritize the prospective financial benefits of increasing internationalization. As such, as family ownership increases, the likelihood that current SEW considerations take precedence over prospective financial considerations should decrease when the firm faces vulnerabilities, as in the case of low munificence industry environments. Indeed, Dyer Jr and Mortensen (2005) and Moss, et al. (2014) argued that harsh environments force family firms to change strategic direction by exploring multiple options to survive. Therefore, following the mixed gamble

logic, when industry munificence is low, making firm failure in the industry a distinct possibility, family owners will be more likely to increase their internationalization scale in an effort to enhance prospective financial wealth.

On the other hand, high industry munificence will render the perceived SEW-related costs of internationalization more pronounced (vis-à-vis low munificent environments) and the perceived prospective financial benefits from internationalization as less appealing to family firms. In other words, the combination of a supportive industry, characterized by an abundance of resources and growth opportunities, strengthens the negative effect of family ownership on internationalization. In this scenario, there is much room for growth in the industry which allows family firms to focus on domestic opportunities rather than seek potential financial gains from abroad. Accordingly, when industry munificence is high, family firms are likely to become more hesitant toward increasing their internationalization, particularly as their level of family ownership increases.

In summary, following the mixed gamble logic, when industry munificence is low, family owners will increase their internationalization scale to enhance prospective financial wealth. In such circumstance, they will choose to ‘flee’ their domestic market and search for additional opportunities in their industry by increasing internationalization. Conversely, when industry munificence is high, family owners will lessen their internationalization scale as they deem the prospects of financial returns from internationalization as less attractive, preferring instead to focus on industry opportunities in their domestic market; thus, choosing to ‘fight’ for their domestic market by decreasing internationalization. Formally stated:

*Hypothesis 3: Industry munificence moderates the negative relationship between family ownership and the scale of internationalization, such that the negative effect of family ownership on internationalization will become more negative as the level of industry munificence increases.*

## **When the Rules of the Game in the Domestic Market Change: The Role of Speed of Reforms**

Country-level institutional differences appear to play an important role in explaining why family firms vary in their scale of internationalization (Arregle et al., 2017; Banalieva, Eddleston, Jiang & Santoro, 2022). Countries implement pro-market reforms to improve market functioning and rates of cross-border business activities (Brune, Garrett, & Kogut, 2004; Dau, Moore, & Kostova, 2020; Rodrik, 2006). Pro-market reforms are seen as a major force that has pushed globalization over the last decades because they encourage international expansion as a strategy to gain market share, improve resources, and increase competitiveness (Cuervo-Cazurra & Dau, 2009; Dau, Moore, et al., 2020; Putzhammer, Puck, & Lindner, 2020; Shi, Sun, Yan, & Zhu, 2017). As a result, many European governments, at the Direction of the EU, have been rapidly implementing pro-market reforms (European Commission, 2020).

However, while a country's economy often benefits from the rapid implementation of pro-market reforms, domestic businesses tend to struggle (Banalieva, Cuervo-Cazurra, & Sarathy, 2018; Dau, Purkayastha, et al., 2020; Kim, Kim, & Hoskisson, 2010), especially family firms (Banalieva, Eddleston, & Zellweger, 2015). Indeed, many family business leaders have expressed concerns. In 2017 the CEO of ADIDAS, Rorsted, lamented: "Europe's inability to solve problems will punish us even more strongly this year" (Cremer, 2017). In 2011 Fiat's CEO, Marchionne, explained: "I think there is a real possibility if the wrong steps are taken, that the system goes off the rails... It will be a difficult year... (unless we build) a bit of confidence in the system that at the moment is lacking" (Aloisi & Rebaudo, 2011). Such sentiments suggest that the uncertainty and turbulence in one's domestic market from rapid reforms affect a firm's confidence at home which may lead to a shift in their strategic preferences. Therefore, although it is often argued that pro-market reforms should promote internationalization, results have been equivocal, suggesting that firms' ability to adjust their

strategies to rapidly implemented reforms should be the focus of more research (Banalieva, et al., 2018; Dau, Purkayastha, et al., 2020).

Further, with the vast majority of studies on pro-market reforms investigating developing and emerging economies, little is known about how pro-market reforms shape firm strategy in developed economies, and particularly across countries in a developed region (Banalieva, et al., 2018; Dau, Purkayastha, et al., 2020). For example, although European countries are believed to have solid economic development and free, supportive markets (Amable, 2009; Enriques & Volpin, 2007), there is actually much variance in the implementation of pro-market reforms among European countries with some countries far advanced (i.e., Finland, Sweden and Norway), others countries significantly behind (i.e., Italy, Spain and Greece), and others considered ‘average’ from a developed country perspective (i.e. Switzerland and Belgium) (Economist, 2006; Erlandsen & Lundsgaard, 2007; Jones, 2015; Royo, 2009). Given the prevalence of family firms in Europe (Alderson, 2018; Faccio & Lang, 2002; Franks, Mayer, Volpin, & Wagner, 2006), and the significance of country-level institutional differences in explaining why family firms vary in their scale of internationalization (Arregle, et al., 2021), it is therefore surprising that research has not explored how rapid changes in pro-market reforms affect family versus nonfamily firm internationalization over time.

Indeed, the dynamic institution-based view highlights the need for research to go beyond a static view of the environment by demonstrating how different speeds of pro-market reforms affect firm performance (Banalieva, et al., 2018; Banalieva, et al., 2015) and strategic preferences (Dau, Moore, et al., 2020). Therefore, as research increasingly seeks to explain why family firms alter their strategies in response to risks associated with their business (Alessandri, et al., 2018; Chirico, Gómez-Mejía, Hellerstedt, Withers, & Nordqvist, 2020; Gómez-Mejía, et al., 2018; Kotlar, et al., 2018) and industry (Chirico, Criaco, et al., 2020;

Zhou, et al., 2019), it is necessary to consider how institutional changes can alter their response to such risks, as they weigh the potential losses and prospective benefits of a given strategy. Thus, from a mixed gamble perspective, we explore how changes in the ‘rules of the game’ of a firm’s domestic environment affect family versus nonfamily firms’ internationalization response to business and industry risk. Our main contention is that rapid reforms modify the internationalization strategy of family firms experiencing a positive versus negative historical performance gap and high versus low industry munificence due to changes in their primary reference point that affect how they view the trade-off between the benefits and losses from internationalization.

Speed of reforms is the positive rate of market liberalization in an economy which can vary from a gradual to rapid pace. Gradual reforms are most often preferred by domestic firms because they allow the firms to slowly adapt to the institutional changes with minimal stress (Banalieva, et al., 2015; Godoy & Stiglitz, 2007). As a country’s government slowly institutes pro-market reforms, foreign firms are gradually encouraged to enter the market, thus affording more time for domestic firms to improve their operations and capture market opportunities (Godoy & Stiglitz, 2007). Therefore, because gradual reforms, as compared to rapid reforms, offer domestic firms a sense of stability, they should not play a significant role in altering their mixed gamble calculus of internationalization. Instead, the perceived losses and benefits associated with internationalization will vary based on firms’ historical performance gap and industry munificence. As such, gradual reforms are not expected to significantly alter family and nonfamily firms’ scale of internationalization in response to their historical performance gap and level of industry munificence.

However, when pro-market reforms are implemented rapidly, firms are forced to quickly adapt and upgrade their capabilities and efficiencies. For those firms unable to quickly adapt, their capabilities become increasingly misaligned with the evolving requirements of the

institutional environment, thereby forcing them to evaluate their strategic fit with their domestic environment (Banalieva, et al., 2015; Chari & David, 2012). Thus, rapid reforms place extreme pressure on firms as they are forced to quickly learn the new ‘rules of the game,’ align their strategies with these new rules, and enhance their ability to compete amidst increasing market pressures (Banalieva, et al., 2015; Chari & David, 2012; Merlevede & Schoors, 2004). As such, rapid reforms add an additional layer of uncertainty and risk to domestic firms as they are forced to quickly adapt their business practices to the rapid stages of reforms that their government is implementing. In turn, this additional layer of risk produced from the institutional environment is expected to alter how firms with varying levels of family ownership view the mixed gamble of internationalization in light of their historical performance gap and level of industry munificence.

Because firms with lower degrees of family ownership are under greater pressure to maximize financial earnings than firms with higher levels of family ownership (Berrone, et al., 2012; Gomez–Mejia, et al., 2014), as family ownership decreases, rapid reforms should pressure firms with high business risk (i.e., negative historical performance gap) and industry risk (i.e., low industry munificence) to reevaluate the losses and benefits associated with internationalization. This is in line with research showing that nonfamily firms decrease their strategic risk taking, relative to family firms, when experiencing performance hazard and financial vulnerabilities (Gómez-Mejía, et al., 2018; Gomez–Mejia, et al., 2014). The turbulence and uncertainty associated with rapid reforms should therefore intensify this reaction by firms with very low or no family ownership because these firms increasingly seek to protect their financial wealth. As the business and industry risks decline, however, and they have excess resources to ‘gamble’ with, firms with lower degrees of family ownership are likely to view internationalization as a beneficial way to diversify the institutional risk

stemming from rapid reforms in their domestic environment, therefore increasing their internationalization scale.

As family ownership increases, in contrast, rapid reforms are expected to alter the firms' mixed gamble calculus of internationalization by making the potential losses to their SEW more salient. Because family firms experience greater difficulties adapting to rapid reforms (Banalieva, et al., 2015), this institutional environment likely intensifies how they evaluate the potential losses and gains from internationalization. For example, since family firms evaluate risky strategic decisions differently when they are under attack and vulnerable (Gómez-Mejía, et al., 2010; Gómez-Mejía, et al., 2018; Patel & Chrisman, 2014), they may view internationalization as a way to escape rapid reforms in their domestic environment when experiencing high business risk and industry risk (i.e., negative historical performance gap and low industry munificence), thus focusing on the potential financial benefits from increasing internationalization. In other words, as family ownership increases, rapid reforms should lead to a 'flight response' for firms with a negative historical performance gap and/or low industry munificence because they seek to balance their current institutional losses at home with potential gains from abroad.

Conversely, because family owners tend to be strongly attached to their domestic markets, with their localized roots being an important source of their SEW (Alessandri, et al., 2018; Baù, et al., 2019), they should prefer to 'fight' for their market at home in the realm of gains under rapid reforms. That is, family firms experiencing a positive historical performance gap and/or high industry munificence in rapidly reforming countries should prefer to utilize their abundant financial resources and industry opportunities to increase sales at home rather than expand abroad, thus protecting and even expanding their SEW. As such, under rapid reforms, family firms with a positive historical performance gap and/or high industry munificence are expected to decrease their scale of internationalization, as they focus on the benefits to be

gained from increasing sales at home. Further, because greater family involvement increases a family firm's sensitivity to changes in the institutional environment (Arregle, et al., 2021; Banalieva, et al., 2015; Peng & Jiang, 2010), these relationships should intensify as family ownership increases. Taken together, these arguments lead to the following hypotheses:

*Hypothesis 4a: Rapid speed of reforms moderates how historical performance gap affects the relationship between family ownership and the scale of internationalization such that the firms' internationalization scale increases with increasing levels of family ownership as their historical performance gap becomes more negative.*

*Hypothesis 4b: Rapid speed of reforms moderates how industry munificence affects the relationship between family ownership and the scale of internationalization such that the firms' internationalization scale decreases with increasing levels of family ownership as industry munificence becomes more positive.*

## METHODOLOGY

### Data Sources and Sample

We started with a sample of publicly traded companies from 11 European countries (Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden and Switzerland) for the period 2002–2011, uniquely gathered by one of the co-authors<sup>1</sup>. It covers ownership and financial characteristics of European corporations from manufacturing and service industries, derived from stock market authorities' registers, corporate annual reports and Datastream. We further extended this dataset using the data from NRG Metrics database available till 2016. We then collected data on firm-level internationalization from Thomson Reuters Eikon and country-level data on governance reforms from the World Bank. After removing observations with missing internationalization data, we obtained a unique sample that covers 1031 listed firms (see Table S1 of the Supplemental document for a detailed description) from 11 European countries for the period of 2002 to 2016 (inclusively).

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<sup>1</sup> The author's name and related reference have been removed to preserve anonymity during the review process.

Our sample provides us with a good research laboratory in several ways. First, Europe has a large amount of the world's largest family firms (Young, 2016), thus offering strong sample representativeness. Second, our sample has an unbalanced structure allowing us to mitigate the survivorship bias problem (Elton, Gruber, & Blake, 1996). Moreover, its focus on listed firms allows us to analyze a homogenous cluster of firms because private and listed firms have heterogeneous internationalization strategies (Dass, 2000; Kontinen & Ojala, 2010). Third, European countries vary substantially in their speed of reforms during the sample period. For instance, Sweden rapidly implemented a large number of reforms during 2002-2016. In 2002, the Swedish government introduced the "Time for Democracy" program to enhance democracy and human rights in the country. It also reformed the judicial system (Government Offices of Sweden, 2004). In 2006, the Swedish government further launched the "Better Regulation" program aimed to decrease the administrative costs for firms by 2010, and to create a "noticeable, positive" change in daily business operations (OECD, 2010). Consequently, the rapid implementation of pro-market reforms boosted Sweden's productivity and its economic growth (Erlandsen & Lundsgaard, 2007; Heyman, Norbäck, & Persson, 2019). Similarly, Denmark and Finland worked to significantly reform their institutional environments during the 2002-2016 period, leading to substantial economic gains (Lehndorff, 2012; Veggeland, 2020). In contrast, countries like Italy and Spain have failed for years to proactively reform their institutional environments (Jones, 2015; Naldini & Saraceno, 2008; Neal & García-Iglesias, 2013; Royo, 2009). This has led to economic instability and stagnation in both countries, particularly during the financial crisis of 2007-2009 (European Commission, 2012; Kickert, 2007). For instance, Italy has been extremely slow and ineffective in its institutional reforms, and thus, did not have any substantial economic growth since the launch of the euro (Bull & Gardini, 2010; Evangelista, 2017; Fabbrini, 2013). Further,

Italy's productivity growth has barely budged, increasing only 0.2% per year (Annunziata, 2018; Bull & Pasquino, 2007).

## **Variables and Measures**

### ***Dependent variable***

Our dependent variable is the *scale of internationalization*. We estimated a firm's internationalization scale as the ratio of foreign sales (sales generated from operations in foreign countries) to total sales (gross sales and other operating revenue less discounts, returns and allowances), a commonly used measure of internationalization in prior literature (Alessandri Todd, Cerrato, & Eddleston, 2017; Arregle, et al., 2021; Arregle, et al., 2012; Fernández & Nieto, 2006; Gómez-Mejía, et al., 2010; Hennart, Majocchi, & Forlani, 2019).

### ***Independent variables***

*Family ownership* is measured as the total number of shares of all classes held by the family, following prior literature (Chrisman, Chua, Pearson, & Barnett, 2012; Evert, Sears, Martin, & Payne, 2018; Minichilli, Brogi, & Calabrò, 2016; Sciascia, Nordqvist, Mazzola, & De Massis, 2015).

*Historical performance gap* is a proxy of business risk encompassing all organizational activities (Greve & Teh, 2018; Greve, 2003). It is estimated as the difference between Return on Assets (ROA) at time  $t-2$  and  $t-3$ . Firms with values above zero have performance above their aspiration levels capturing a lower level of business risk, while firms with values below zero have performance below their aspiration levels, capturing a higher level of business risk. Therefore, the *Historical performance gap* variable has been reverse coded by multiplying it with (-1) to reflect a lower level of business risk when values are below zero and a higher level of business risk when values are above zero.

*Industry munificence*. Following prior research (Chirico, Criaco, et al., 2020; Chirico, Gómez-Mejía, et al., 2020), we measured *Industry munificence* by averaging the regression

coefficients of industry sales' growth over a 5-year period. It reflects an abundance of resources to support growth within an industry (Baù, et al., 2019; Brauer & Wiersema, 2012; Dess & Beard, 1984; Karim, et al., 2016).

*Speed of pro-market reforms.* To estimate the speed of pro-market reforms, we adopted the strategy proposed by Banalieva et al. (2015), which includes three steps. In the first step, we constructed the index of a country's reforms as the average value of the following World Governance Indicators (WGI) (Kaufmann, Kraay, & Mastruzzi, 2011) that capture core dimensions of doing business in a country<sup>2</sup>: Regulatory Quality, Rule of Law and Control of Corruption (see Tables S2 and S3 of the Supplemental document for a detailed description). The WGI index has a high concurrent validity with the Index of Economic Freedom (Holmes, Feulner, & O'Grady, 2008)<sup>3</sup>. In addition, various WGI components have commonly been used in prior research (Ding, Qu, & Wu, 2016; Ramasamy, Yeung, & Laforet, 2012; Santangelo, 2018; Wu, Wang, Hong, Piperopoulos, & Zhuo, 2016). In the second step, we estimated the original speed of pro-market reforms as the ratio between the actual speed of reforms and the fastest speed of reforms in country  $c$  and year  $t$ . More positive (negative) values of the original speed variable imply that a country is implementing faster reforms (reversals). In the final step, we constructed the *Speed of reforms* variable by setting negative values of the original speed variable to zero.

### ***Control variables***

First, we controlled for potential firm-level effects on internationalization. Firms with better financial performance are likely to have more resources for successful internationalization. Thus, ROA has been included in our empirical model as a proxy of *Firm performance* (Pedersen & Thomsen, 1997). To account for the strength of the controlling

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<sup>2</sup> We thank the guest editor and reviewers for this insightful suggestion. It is also important to mention that our principal findings remain unchanged upon inclusion of the additional WGI dimensions that capture country-level democratic freedom, political stability, and government effectiveness.

<sup>3</sup> There is a high correlation of more than 70% between the two indices.

family's interests on the board of a firm (Altomonte, Aquilante, Bekes, & Ottaviano, 2014; Calabrò, Minichilli, Amore, & Brogi, 2018; Molly, Uhlener, De Massis, & Laveren, 2019; Pongelli, et al., 2021), we added *Family on board* variable (a continuous variable capturing the number of family members on the board of directors of a family firm). Given that the presence of a non-family member at the helm of a firm might impact the internationalization scale of a family firm (Pongelli, et al., 2021), we constructed a *Nonfamily CEO* variable (a dummy variable that equals 1 if a family firm is managed by nonfamily CEO and 0, otherwise). In addition, we accounted for *Firm age* (the natural logarithm of years for which a firm exists) and *Firm size* (the natural logarithm of total assets) because older and larger firms with accumulated knowledge and resources are likely to have higher levels of internationalization (Carr, Haggard, Hmieleski, & Zahra, 2010; Dass, 2000). All the financial variables have been winsorized at the 5% level to mitigate the impact of outliers (Adams, Hayunga, Mansi, Reeb, & Verardi, 2019).

Second, we accounted for industry-, country-, and time-level differences in our sample. The degree of competition in the industry, captured by its concentration ratio, can facilitate the propensity of a firm to internationalize (De Massis, Gomez-Mejia, Miroshnychenko, Muñoz-Bullón, & Sanchez-Bueno, 2020; Wan & Hoskisson, 2003). Thus, we controlled for the industry concentration using the Herfindahl-Hirschman Index (*HHI*), estimated as the sum of squared market shares measured using segment sales at the industry level (Nawrocki & Carter, 2010). *GDP growth* (the annual percentage growth rate of real GDP) has been adopted as the proxy of a country's economic growth to account for cross-country differences in growth rates (Levine, Loayza, & Beck, 2000). *Industry* and *country dummies* (based on the 2-digit Datastream industry codes) have been added to our explanatory model to capture sectoral and geographical heterogeneity (Bozzi, Barontini, & Miroshnychenko, 2017; De Massis, Kotlar, et al., 2018). In addition, we included *time dummies* to control for the effects of economic shocks,

business cycles, and other time-specific factors that might affect the family ownership-internationalization scale nexus (Arregle, et al., 2017; Evert, Martin, McLeod, & Payne, 2016),

### **Empirical Model**

The major empirical challenge in this paper is to estimate the causal effect of family influence on internationalization scale, controlling for individual unobservable heterogeneity in our sample. Internationalization scale is strongly characterized by unquantifiable factors including corporate strategy, organizational culture, norms, and routines (Calvelli & Cannavale, 2019; Melin, 1992; Roth & Morrison, 1992; Surdu, Greve, & Benito, 2021). Because these factors are extremely difficult to quantitatively capture, we adopt the fixed effects (FE) linear estimator that allows us to estimate the causal relationship between family ownership and internationalization scale incorporating an individual firm-level effect ( $\eta_i$ ) directly into our empirical model (Hsiao, 2007; Wooldridge, 2010), which controls for the unobservable heterogeneity across firms in our analysis. We also adopt the Huber-White sandwich estimation procedure to control for the heteroscedasticity problem in all the FE linear regressions (Long & Ervin, 2000; Petersen, 2009). However, it is important to mention that the FE linear estimator detects smaller coefficient estimates and claims of statistical significance are more conservative, as compared to other estimators (Allison, 2009)<sup>4</sup>.

To investigate the relationship between family ownership and internationalization scale, we first examine the effect of family ownership and then add interaction terms between the family ownership variable and the various risk proxies. Thus, our main explanatory model is the following:

$$\text{Internationalization scale}_{it} = \beta_0 + \beta_1(\text{Family ownership}_{it}) + \beta_2(\text{Historical performance gap}_{it}) + \beta_3(\text{Industry munificence}_{it}) + \beta_4(\text{Speed of reforms}_{it}) + \beta_5(\text{Controls}_{it}) + \eta_i + \delta_i + c_i + t_i + \varepsilon_{it}$$

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<sup>4</sup> Our principal findings remain insensitive to a battery of robustness tests using alternative definitions, alternative estimation techniques and including additional controls, reported in the Supplemental document.

where  $i$  refers to firms,  $\delta$  refers to industries,  $c$  refers to countries,  $t$  refers to years,  $Family\ ownership_{it}$  represents proxy of family influence,  $Historical\ performance\ gap_{it}$  is proxy of business risk,  $Industry\ munificence_{it}$  is proxy of industry risk,  $Speed\ of\ reforms_{it}$  is proxy of institutional risk,  $Controls_{it}$  is a vector of control variables (family on board, nonfamily CEO, firm performance, firm size, firm age, HHI, GDP growth),  $\eta_i$  captures individual unobservable heterogeneity,  $i_i$  stands for industry fixed effects (two-digit Datastream codes),  $c_i$  are country fixed effects,  $d_i$  represents year fixed effects, and  $\varepsilon_{it}$  is an error term.

## RESULTS

### Descriptive Statistics and Correlations

The descriptive statistics appear in Table 1. Overall, the listed firms in our sample obtain around half of their sales from abroad, similar to other European studies (Banalieva & Eddleston, 2011). An average firm in our sample has a historical performance gap value of 0.001 and industry munificence's value of 0.100, while the standard deviation for the former is 0.057 and 0.648 for the latter. This suggests that there is substantial variation in both business and industry risks among firms in our sample. In addition, the average speed of reforms in our sample equals 0.112, while the standard deviation is 0.201, confirming presence of considerable variation in the rate of institutional risk in our sample as well.

### *Insert Tables 1 and 2*

Table 2 shows the correlation matrix for the main variables of interest. Internationalization scale has a negative correlation with the *Family ownership* variable ( $p < 0.05$ ), as expected. We also find that the scale of internationalization is negatively correlated with speed of reforms ( $p < 0.05$ ). However, both business and industry risk proxies are not significantly correlated with internationalization scale. The average variance factor (VIF) is 6 suggesting that multicollinearity problem should not affect our regression estimates (O'Brien, 2007).

## Hypothesis Testing

Table 3 presents the results of the main analysis. Additional robustness tests using alternative definitions, alternative estimation techniques and including additional controls, revealed qualitatively similar conclusions. A summary of these tests is reported in Table 4, while all of the detailed analyses are provided in Tables S4-S9 of the Supplemental document.

### *Inserts Table 3 and 4*

Hypothesis 1 proposes that family ownership has a negative impact on internationalization scale. Model 2 shows that the regression coefficient of *Family ownership* has a negative sign ( $\beta = -0.002$ ) and is marginally statistically significant ( $p = 0.054$ ). The economic impact of family control on this variable holding all other variables constant is important: internationalization scale decreases by around 0.002% for each 1% increase in family ownership of a firm corresponding to 0.02% and 0.05% drops in internationalization scale for firms with 10% and 25% of family ownership, accordingly (Bennedsen, Huang, Wagner, & Zeume, 2019; Calabrò, et al., 2018; Faccio & Lang, 2002). Thus, our Hypothesis 1 appears supported.

Hypothesis 2 suggests that historical performance gap moderates the negative relationship between family ownership and internationalization scale. We can see in Model 3 that the interaction term between *Family ownership* and *Historical performance gap* is positive and marginally statistically significant ( $\beta = 0.006$ ,  $p = 0.088$ ). To further interpret this interaction and verify its significance across different levels of historical performance gap, we calculated the average predicted probabilities of internationalization scale in firms with 0%, 10% and 25% family ownership (Bennedsen, et al., 2019; Calabrò, et al., 2018; Faccio & Lang, 2002) at different levels of historical performance gap for the full range of possible scores of the internationalization scale (with 95% confidence interval) in Figure 2 as per the guidelines of Meyer, van Witteloostuijn, and Beugelsdijk (2017); Murphy and Aguinis (2022). We observe

in the figure that the negative effect of family ownership on internationalization scale becomes more (less) negative as the level of positive (negative) historical performance gap increases. All the average predicted probabilities, displayed in Figure 2, are statistically significant at 1% level. Thus, our Hypothesis 2 is tentatively confirmed.

***Insert Figures 2 and 3***

Hypothesis 3 posits that the negative effect of family ownership on internationalization will become more negative as the level of industry munificence increases. As shown in Model 4, the interaction term between *Family ownership* and *Industry munificence* is negative and statistically significant ( $\beta = -0.001$ ,  $p = 0.002$ ). To further interpret this interaction and verify its significance across different levels of industry munificence, we have calculated the average predicted probabilities of internationalization scale in firms with 0%, 10% and 25% family ownership (Bennedsen, et al., 2019; Calabrò, et al., 2018; Faccio & Lang, 2002) at different levels of industry munificence for the full range of possible scores of the internationalization scale (with 95% confidence interval) following the guidelines of Meyer, et al. (2017) (see Figure 3). This figure shows that the negative effect of family ownership on internationalization scale becomes more pronounced as the level of industry munificence increases. All the average predicted probabilities, displayed in Figure 3, are statistically significant at the 1% level, providing support for Hypothesis 3.

We further test the presence of the positive moderating effect of historical performance gap on the link between family ownership and internationalization scale in the subsample of countries with fast speed of reforms (those with speed of reforms above the sample average) and the subsample of gradual speed of reforms' countries (those with speed of reforms below the sample average) in Models 5 and 6, accordingly. We find preliminary evidence of statistical significance of the moderating effect of historical performance gap in both subsamples. However, after calculation of the average predicted probabilities of internationalization scale

for firms with 0%, 10% and 25% family ownership (Bennedsen, et al., 2019; Calabrò, et al., 2018; Faccio & Lang, 2002) at different levels of historical performance gap for the full range of possible scores of the internationalization scale (with 95% confidence interval) (Meyer, et al., 2017), we find that fast speed of reforms plays a significant role ( $p < 0.001$ ) in altering the moderating effect of historical performance gap on the link between family ownership and internationalization scale (see Figure 4), while gradual speed of reforms does not substantially alter this link<sup>5</sup>. Specifically, we find that the firms' internationalization scale increases with higher levels of family ownership as their historical performance gap becomes more negative. Hence, Hypothesis 4a is confirmed.

#### ***Insert Figures 4 and 5***

Looking at Models 7 and 8 reporting results regarding the presence of a moderating effect of industry munificence on the family ownership-internationalization scale nexus in countries with fast and gradual speed of reforms, we find that the interaction between *Family ownership* and *Industry munificence* is weakly significant at 10% level only in the subsample of countries with fast speed of reforms. Further estimation of the average predicted probabilities of internationalization for firms with 0%, 10% and 25% of family ownership (Bennedsen, et al., 2019; Calabrò, et al., 2018; Faccio & Lang, 2002) at different levels of industry munificence for the full range of possible scores of internationalization scale (with 95% confidence interval) (Meyer, et al., 2017) fully confirms that fast speed of reforms significantly alters the relationship between family ownership and internationalization ( $p < 0.001$ ) (see Figure 5), while gradual speed of reforms does not affect this relationship. In particular, we find that the firms' internationalization scale decreases with increasing levels of family ownership as industry munificence rises. This evidence appears to support Hypothesis 4b.

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<sup>5</sup> With exception of the group of firms with 10% of family ownership, where we find a marginal statistical significance at 10% level.

## **DISCUSSION AND CONCLUSION**

This study blends insights from the mixed gamble perspective (Gómez-Mejía, et al., 2018; Zellweger, Kellermanns, Chrisman, & Chua, 2012) and the dynamic institution-based view (Banalieva, et al., 2015; Dau, Moore, et al., 2020) to offer a framework that considers how different business-, industry- and institutional-level factors (corresponding to different sources of risk) affect family versus nonfamily firms' internationalization. Our study acknowledges how depending on the degree of family ownership, family firms' framing of gains and losses in mixed gambles varies across contexts characterized by different business risk (i.e., historical performance gap) and industry risk (i.e., industry munificence), and is embedded in their domestic institutional environment (institutional risk). The implications, limitations, and future research directions of our study are discussed below.

### **Theoretical Implications**

Our paper's first theoretical contribution is to the growing literature on firms' mixed gambles (Alessandri, et al., 2018; Gómez-Mejía, Neacsu, & Martin, 2017; Kotlar, et al., 2018). While previous mixed gamble research has shown how financial slack influences the mixed gamble of family firms' internationalization (Alessandri, et al., 2018), our work extends this logic by demonstrating how historical performance gap and industry munificence affect family versus nonfamily firms' scale of internationalization, taking into account both expansion and withdrawal. In so doing, we help to explain when firms, based on family ownership, choose to protect and 'fight' for their domestic market or prefer to 'flee' by increasing their internationalization.

Our second theoretical contribution is to the growing literature on the dynamic institution-based view of the firm (Banalieva, et al., 2018; Banalieva, et al., 2015; Dau, Moore, et al., 2020). While this stream of literature has largely analyzed the internationalization patterns of multinational firms from transitioning and emerging economies (Banalieva et al., 2022; Dau,

Moore, et al., 2020; Manolova, Eunni, & Gyoshev, 2008; Singla, Veliyath, & George, 2014), it has not yet explored how the speed of reforms across developed countries' can alter how listed family and nonfamily firms frame the gains and losses of mixed gambles over time when choosing whether to increase or decrease their internationalization scale. To the best of our knowledge, this is the first study to do so. Our study highlights the importance of firms' domestic market in shaping their expansion or withdrawal from abroad. Additionally, our study shows how a firm's institutional environment can alter its scale of internationalization in response to business and industry risk, thus offering a more holistic perspective of the mixed gamble of internationalization.

Our paper's third theoretical contribution is to the literature on the heterogeneity of family firms' internationalization strategies (Arregle, et al., 2021; Arregle, et al., 2017; Daspit, Chrisman, Ashton, & Evangelopoulos, 2021; Debellis, et al., 2021). We offer unique insights on why firms, depending on the degree of family ownership, calculate the mixed gamble of internationalization differently and why their decisions to expand or withdraw from internationalization vary over time after controlling for firm-level unobservable heterogeneity, potential sample selection problem, alternative variable definitions, and including additional control variables. Specifically, results suggest that firms with high family ownership resist expanding abroad except when they have money to gamble (high positive performance gap) or they are pushed due to a lack of opportunities in their industry (low industry munificence). Further, these patterns intensify when the family firm's domestic market is experiencing rapid reforms.

### **Policy and Practical Implications**

In terms of policy implications, we found that a rapid speed of pro-market reforms has economically important effects for firms with varying degrees of family ownership. Moreover, this effect varies depending on the type and level of risk involved. Family firms increase

internationalization scale when negative historical performance gap is high and industry munificence is low, and these effects are particularly pronounced in rapidly reforming institutional environments. Thus, we caution policy makers that the European Union's efforts to stimulate international expansion of publicly traded firms with the help of institutional reforms, can lead to asymmetric effects. Therefore, we encourage policy makers to heed how the speed of pro-market reforms affects the scale of internationalization for firms with different levels of family ownership facing different types and levels of risk.

With respect to practical implications, several managerial implications stem from our work. This study suggests that corporate managers need to understand how the interplay between different types and levels of risk in the context of an institutional environment, where a firm operates, can affect corporate strategy. Further, the speed of reforms of the institutional environment plays a vital role in how firms respond to business and industry risks. Our results show that firms with a high level of family ownership are particularly sensitive to institutional changes in their domestic markets since they likely contemplate the environment's effect on their current SEW and prospective financial wealth returns.

Our findings also suggest to business consultants advising family-controlled publicly traded firms that having a holistic view of the possible interactions between different sources and levels of risk in a highly dynamic institutional environment is extremely important when providing advice and support on the topic of international expansion. More specifically, while the impact of family ownership on internationalization scale is conditional on business- and industry-level risks, the dynamics of speed of reforms is another important institutional-level contingency to be taken into the account. As such, how a firm responds to different types of risks is highly dependent on their level of family ownership and the speed of pro-market reforms implemented by their domestic country.

## **Limitations and Future Research**

We also acknowledge the limitations of our work, which offer opportunities for future research. We were able to examine only one dimension of family firms' internationalization strategy, namely the scale, captured as the ratio of foreign sales to net sales. We recognize the limitations of this approach; however, this ratio remains the most widely used internationalization proxy in family business studies largely due to data availability constraints (Alessandri, et al., 2018; Arregle, et al., 2012; Gómez-Mejía, et al., 2010). In addition, a meta-analysis of more than 70 family business studies shows that 'family firms more commonly concentrate their internationalization on a limited number of foreign markets' (Arregle, et al., 2017). The scale of internationalization represents a strategic focus for family firms, while the scope of internationalization (i.e., the number of foreign countries firms internationalize to) is of lower importance to family firms (Arregle, et al., 2012; Gómez-Mejía, et al., 2010). We were also not able to capture the entry modes and the number of countries in which firms operate in our study due to the lack of relevant secondary data. As the literature in this research domain is still limited, with few remarkable exceptions (Plakoyiannaki, Pavlos Kampouri, Stavrakis, & Kotzaivazoglou, 2014; Pongelli, et al., 2021), we believe that a more comprehensive understanding of the different pathways and entry modes to international markets by publicly traded firms with varying degrees of family ownership is necessary and important.

The sample used to answer our research questions covered only publicly traded companies. The emerging literature analyzing determinants and obstacles of private firms' international expansion (Debellis, et al., 2021; Liang, Wang, & Cui, 2013; Mitter, Duller, Feldbauer-Durstmüller, & Kraus, 2012) can further uncover important aspects of what it takes a private firm to successfully expand its operations abroad across different institutional settings. In this context, studies of private family firms' internationalization strategies, insulated from financial markets and characterized by more balanced temporal horizons (Carney, Van Essen,

Gedajlovic, & Heugens, 2015; Huybrechts, Voordeckers, & Lybaert, 2012; Soluk, Miroshnychenko, Kammerlander, & De Massis, 2021), represent a promising research avenue. We particularly encourage future studies to confront the role of different types and levels of risk in internationalization strategies of private firms to possibly examine the generalizability of our findings to such a context. We also believe that it would be fruitful for future research to examine and compare the role of institutional environments in different parts of the world in explaining mixed gambles of private family firms' internationalization in longitudinal settings.

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**Table 1.** Descriptive Statistics

	Mean	S.D.	Min.	Max.
Internationalization scale	0.531	0.306	0.000	1.000
Family ownership	6.229	15.850	0.000	93.120
Family on board	0.045	0.207	0.000	1.000
Nonfamily CEO	0.019	0.136	0.000	1.000
Historical performance gap	0.001	0.057	-0.295	0.295
Industry munificence	0.100	0.648	-1.132	2.100
Firm performance	0.046	0.067	-0.117	0.177
Firm size	14.210	1.981	7.160	23.496
Firm age	3.867	0.851	1.099	6.089
HHI	0.102	0.108	0.000	0.485
Speed of reforms	0.112	0.201	0.000	0.881
GDP growth	0.889	2.191	-8.707	5.989

*Notes:* All the definitions of variables are provided in the section Variables and Measures.

**Table 2.** Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12
1 Internationalization scale	1.000											
2 Family ownership	-0.037*	1.000										
3 Family on board	-0.044*	-0.008	1.000									
4 Nonfamily CEO	0.039*	0.068*	0.214*	1.000								
5 Historical performance gap	0.009	-0.026	-0.013	-0.001	1.000							
6 Industry munificence	-0.008	-0.036*	0.031	-0.019	0.013	1.000						
7 Firm performance	0.104*	0.021	-0.056*	0.013	-0.136*	-0.126*	1.000					
8 Firm size	0.152*	0.050*	-0.142*	-0.024	-0.030	-0.260*	0.129*	1.000				
9 Firm age	0.179*	0.091*	-0.148*	-0.032	-0.017	-0.096*	0.127*	0.252*	1.000			
10 HHI	-0.052*	-0.098*	-0.084*	0.034*	0.017	-0.037*	-0.011	0.145*	-0.044*	1.000		
11 Speed of reforms	-0.080*	0.417*	-0.009	0.057*	-0.010	-0.137*	-0.009	0.100*	0.131*	0.095*	1.000	
12 GDP growth	0.042*	0.103*	0.023	-0.033	-0.088*	-0.067*	0.077*	0.008	0.017	-0.212*	-0.021	1.000
<i>N</i>	3526											

\*  $p < .05$

**Table 3. Main Results**

Model	1	2	3	4	5	6	7	8
D.V.: Internationalization scale	Full sample	Full sample	Full sample	Full sample	Fast speed of reforms' subsample	Gradual speed of reforms' subsample	Fast speed of reforms' subsample	Gradual speed of reforms' subsample
Family on board	-0.007 (0.786)	-0.004 (0.865)	-0.003 (0.893)	-0.004 (0.856)	-0.032 (0.438)	0.024 (0.478)	-0.033 (0.407)	0.024 (0.473)
Nonfamily CEO	0.032 (0.235)	0.031 (0.237)	0.031 (0.240)	0.033 (0.215)	0.008 (0.805)	0.048 (0.310)	0.012 (0.712)	0.048 (0.311)
Financial performance	-0.136 (0.129)	-0.135 (0.130)	-0.133 (0.136)	-0.137 (0.126)	0.107 (0.414)	-0.136 (0.204)	0.081 (0.583)	-0.136 (0.204)
Firm size	0.006 (0.775)	0.005 (0.813)	0.005 (0.815)	0.005 (0.796)	0.037 (0.174)	-0.005 (0.871)	0.038 (0.169)	-0.005 (0.871)
Firm age	-1.946 (0.000)	-1.943 (0.000)	-1.994 (0.000)	-2.005 (0.000)	-1.891 (0.987)	-1.234 (0.236)	-1.658 (0.569)	-1.890 (0.871)
HHI	0.003 (0.978)	0.006 (0.963)	0.003 (0.980)	0.002 (0.987)	-0.182 (0.647)	-0.169 (0.293)	-0.189 (0.632)	-0.165 (0.307)
GDP growth	-0.003 (0.260)	-0.003 (0.259)	-0.003 (0.248)	-0.003 (0.265)	-0.025 (0.057)	-0.005 (0.079)	-0.027 (0.042)	-0.005 (0.078)
Speed of reforms	-0.025 (0.576)	-0.025 (0.578)	-0.026 (0.563)	-0.025 (0.570)	-0.103 (0.197)	0.036 (0.858)	-0.107 (0.180)	0.027 (0.891)
Historical performance gap	0.001 (0.986)	0.001 (0.986)	-0.007 (0.892)	0.002 (0.970)	-0.257 (0.051)	0.038 (0.499)	-0.172 (0.156)	0.042 (0.462)
Industry munificence	0.003 (0.761)	0.003 (0.757)	0.003 (0.751)	0.005 (0.571)	-0.008 (0.561)	0.006 (0.657)	0.001 (0.959)	0.006 (0.636)
Family ownership		-0.002 (0.054)	-0.002 (0.060)	-0.002 (0.090)	-0.001 (0.347)	0.001 (0.966)	-0.001 (0.411)	0.001 (0.967)
Family ownership x Historical performance gap			0.006 (0.088)		0.010 (0.032)	0.025 (0.055)		
Family ownership x Industry munificence				-0.001 (0.002)			-0.001 (0.071)	-0.003 (0.202)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	8.076 (0.000)	8.086 (0.000)	8.285 (0.000)	8.319 (0.000)	0.115 (0.794)	0.649 (0.100)	0.091 (0.839)	0.648 (0.100)
<i>N</i>	3526	3526	3526	3526	957	2569	957	2569

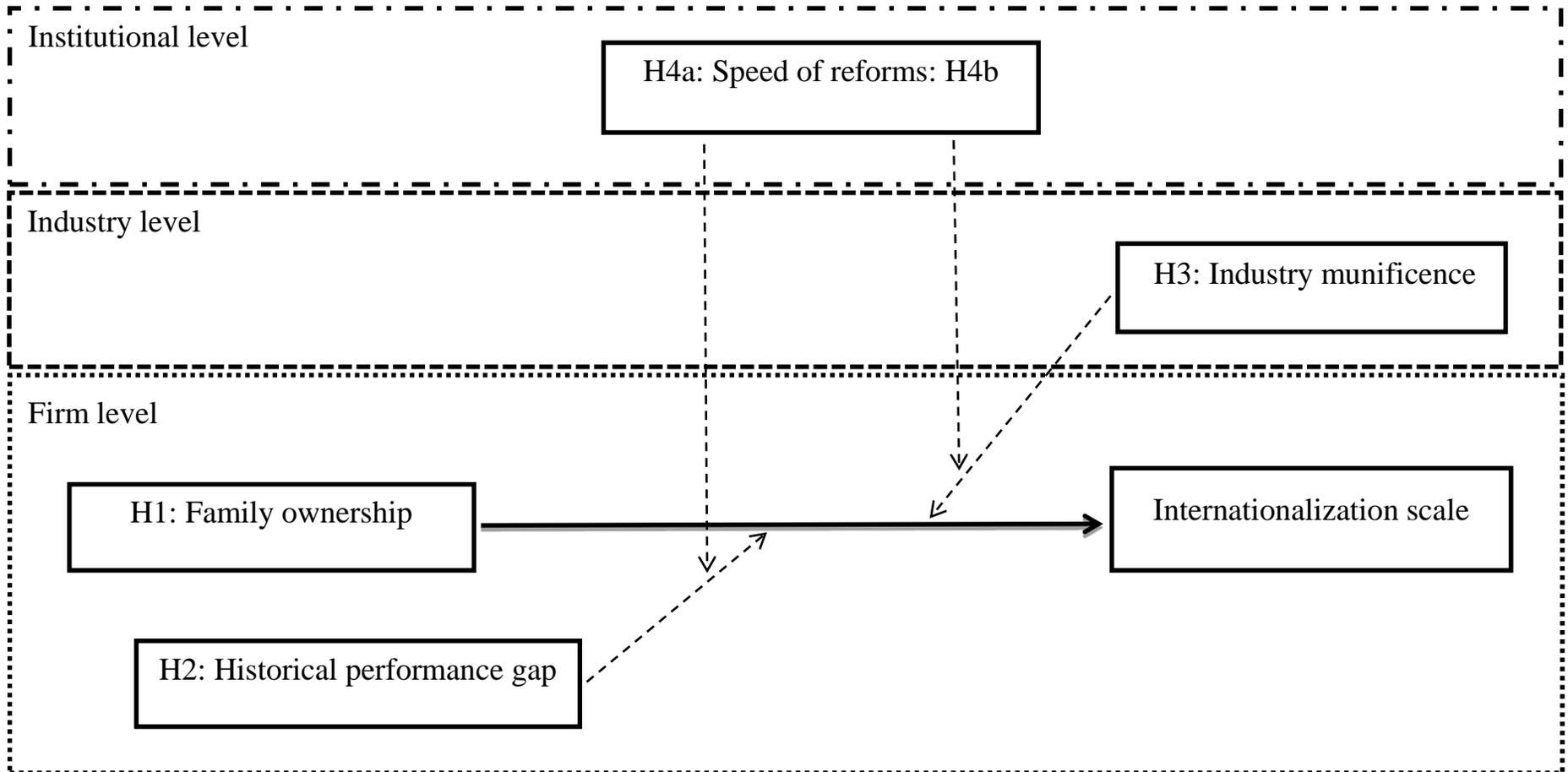
Notes: This table presents the coefficients and p-values (in parentheses) of the linear fixed-effects regressions with robust standard errors.

**Table 4.** Summary of robustness tests

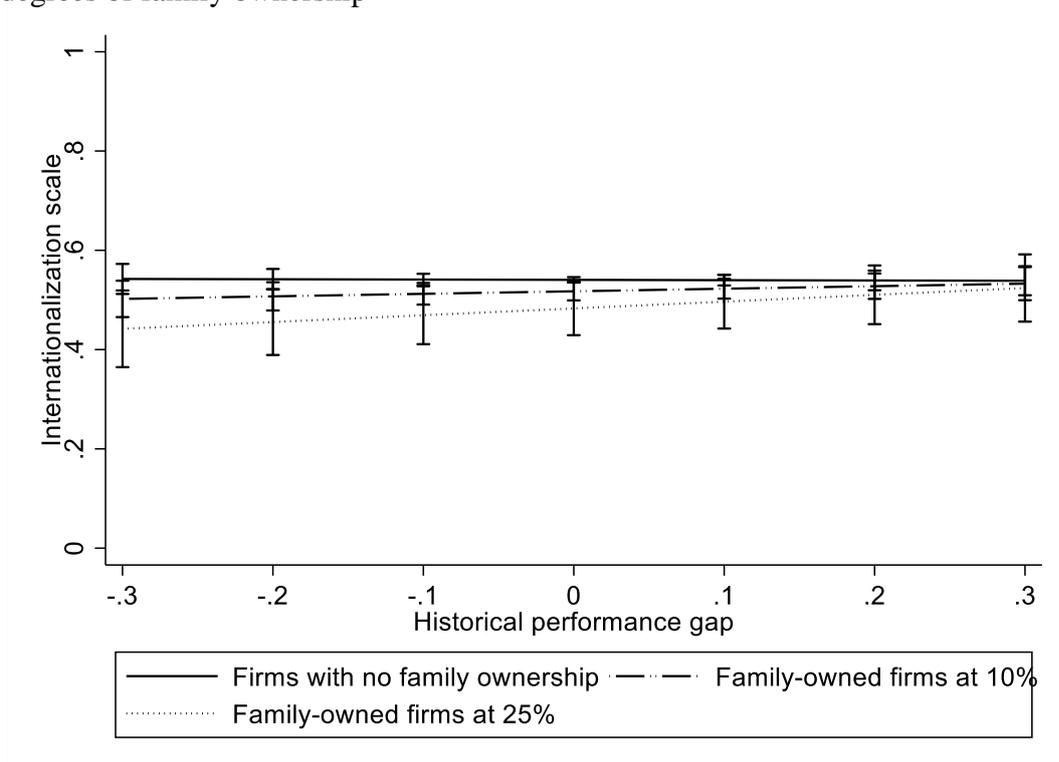
Purpose of the robustness test	Procedure used	Results obtained
Control for the potential impact of family involvement in management of a firm (Kotlar, De Massis, Frattini, Bianchi, & Fang, 2013; Sanchez- Bueno, Muñoz- Bullón, & Galan, 2019)	Inclusion of the proxy of <i>family management</i> (estimated as number of family members on top managerial positions of a firm) in our main explanatory model	Table S4: H1-H4b confirmed
Control for the potential impact of industry dynamism (Baù, et al., 2019; Chirico, Criaco, et al., 2020)	Inclusion of the proxy of <i>industry dynamism</i> (estimated as the as the average of the standard errors of the regression slopes for the sales regression equations used in calculating industry munificence over a 5-year period) in our main explanatory model	Table S5: H1-H4b confirmed
Control for the possible effect of speed of pro-market reversals (Banalieva, et al., 2015; Dau, Purkayastha, et al., 2020; Heybey & Murrell, 1999)	Inclusion of the proxy of <i>speed of reversals</i> (estimated as the original speed variable with country-year observations having positive values set to zero) in our main explanatory model	Table S6: H1-H4b confirmed
Control for the initial conditions in the country-level institutional environment (Banalieva, et al., 2015; Heybey & Murrell, 1999)	Inclusion of the proxy of <i>scope of reforms</i> (calculated as the average value of the WGI index that capture major dimensions of doing business in a country <sup>6</sup> : Regulatory Quality, Rule of Law and Control of Corruption) in our main explanatory model	Table S7: H1-H4b confirmed
Control for the potential impact of domestic firms (Kosová, 2010)	Removal from our sample all the firms having zero in their internationalization scale	Table S8: H1-H4b confirmed
Control for the multilevel structure of our data (Peterson, Arregle, & Martin, 2012)	Application of the multilevel linear modelling technique (Rabe-Hesketh & Skrondal, 2008)	Table S9: H1-H4b confirmed

<sup>6</sup> We thank the guest editor and reviewers for this insightful suggestion. It is also important to mention that our principal findings remain unchanged upon adoption of all the WGI dimensions.

**Figure 1.** Theoretical model

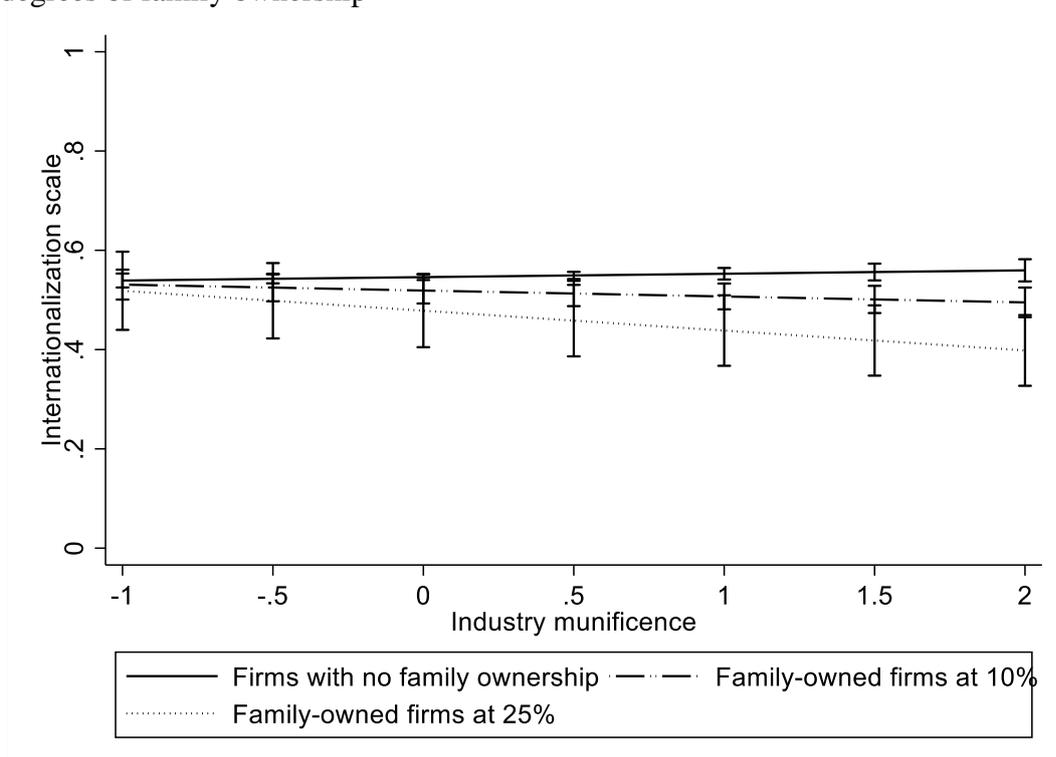


**Figure 2.** The impact of historical performance gap on internationalization scale for different degrees of family ownership



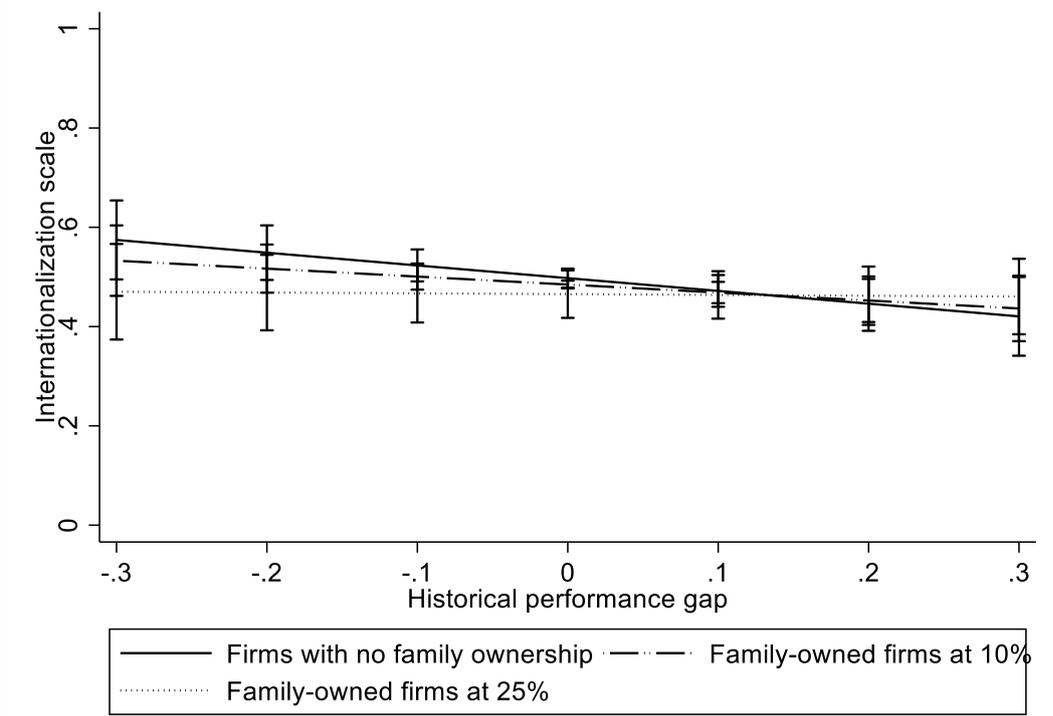
Notes: This table presents the average predicted probabilities of internationalization scale in firms using family ownership thresholds of 0%, 10% and 25% at different levels of historical performance gap with 95% confidence interval. Values below zero (above zero) on the x-axis indicate positive (negative) historical performance gap of a firm.

**Figure 3.** The impact of industry munificence on internationalization scale for different degrees of family ownership



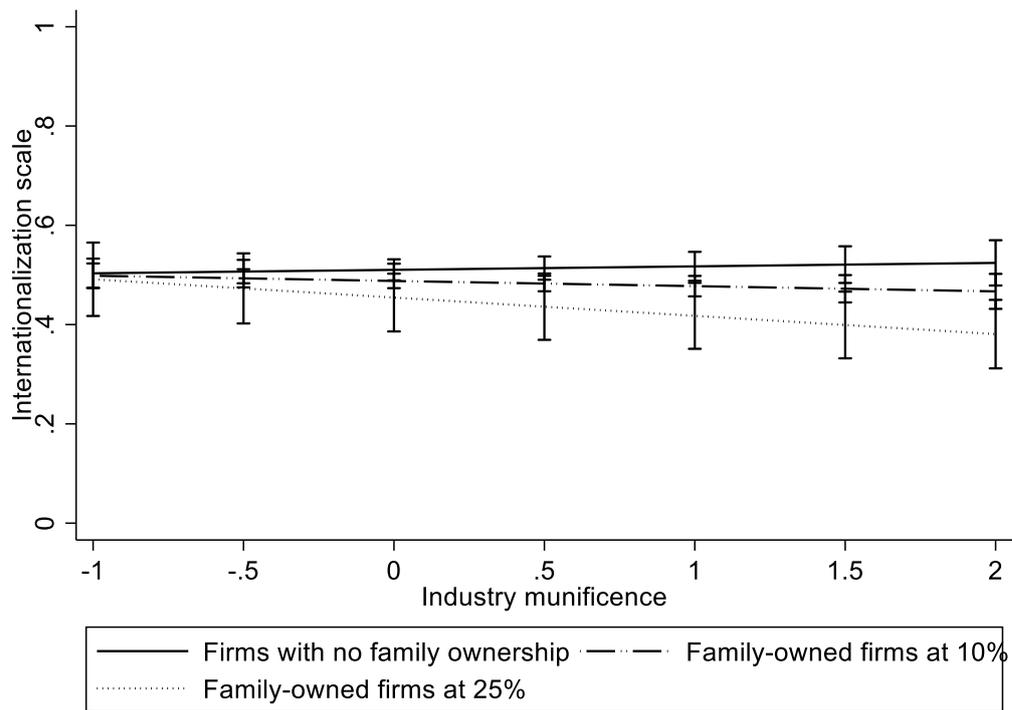
Notes: This table presents the average predicted probabilities of internationalization scale in firms using family ownership thresholds of 0%, 10% and 25% at different levels of industry munificence with 95% confidence interval. Values below zero (above zero) on the x-axis indicate lack (abundance) of growth opportunities within an industry.

**Figure 4.** The impact of historical performance gap on internationalization scale for different degrees of family ownership in countries with fast speed of reforms



Notes: This table presents the average predicted probabilities of internationalization scale in firms using family ownership thresholds of 0%, 10% and 25% at different levels of historical performance gap with 95% confidence interval. Values below zero (above zero) on the x-axis indicate positive (negative) historical performance gap of a firm.

**Figure 5.** The impact of industry munificence on internationalization scale for different degrees of family ownership in countries with fast speed of reforms



Notes: This table presents the average predicted probabilities of internationalization scale in firms using family ownership thresholds of 0%, 10% and 25% at different levels of industry munificence with 95% confidence interval. Values below zero (above zero) on the x-axis indicate lack (abundance) of growth opportunities within an industry.