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Founder retention as CEO at IPO in emerging economies: The role of private equity owners and national institutions

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ABSTRACT

We integrate the institutional perspective with research on the governance role of private equity firms in an investigation of Founder-CEO successions in Initial Public Offerings (IPOs) in emerging markets. Using a unique, hand-collected and comprehensive sample of 191 firms having undertaken IPOs in 21 markets across the African continent between January 2000 and August 2016, we apply instrumental variable (IV) Probit methodology and find that higher levels of private equity ownership are positively associated with the probability of the founder's retention as CEO, especially in the context of low-quality formal institutions. Further, in societies with high tribalism, higher private equity ownership is associated with an increased likelihood of founder retention. Voids in the institutional architecture underscore the importance of the founder as a key organizational resource for the firm and a source of institutionalized legitimacy, which in turn confers on the firm an ability to access required resources.

Executive summary

Prior literature has accorded founder succession from the CEO leadership role within entrepreneurial firms as a key milestone in their life-cycles (e.g. Jain and Tabak, 2008). This has built on a voluminous literature on generic CEO succession occurring in more developed, later stage firms. However, this research has typically adopted an agency-theoretic or resource dependence frameworks that view institutions as a thin veil reinforcing external contracting. A more recent institutional approach has been advanced (e.g. Peng et al., 2008, 2018), which emphasizes the central importance of institutions in shaping the strategic orientation of firms, and the appropriate governance for achieving these socialized performance goals.

We focus on the interaction between private equity, both venture capitalists (VCs) and business angels (BAs), and entrepreneurial founder succession from CEO role at the initial public offering (IPO) juncture in the context of emerging markets. Private equity is representative of critical resource and capital infusions into early-stage firms, and typically those involved possess intimate knowledge of the venture's true worth in uncertain environments of emerging markets. Hence, their decision making at the IPO juncture takes into account the continuing value of the founder being retained in the leadership role. We argue that the value of the founder is also contingent on the institutional environment within which the firm is embedded. Our empirical evidence suggests that higher private equity ownership pre-IPO is associated with founder retention as CEO at IPO. This association is negatively moderated by formal institutional quality, implying higher institutional quality influences succession, and positively moderated by informal

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tribalism, implying tribal relations influence retention.

Our paper makes several contributions. The first is that private equity recognizes the extended value of the founder well beyond the junctures at which succession would normally take place, such as at IPO. This is owing to the founder's enhanced social capital, derived through informal institutions in emerging economies, typically supporting relational contracting, as opposed to the arm's length external contracting prevalent in Western societies. The second is that higher formal institutional quality is supportive of external contracting, leading to emphasis on external contract procurement of resources and hence a reduced necessity for founder value, while the opposite is true in low-quality jurisdictions, characterized by institutional "voids". The third is that elevated tribalism within society emphasizes culture-based relational contracting, the accentuation of founder value in terms of social capital, and thus their retention. The opposite is true in contexts of lower tribalism. We utilize the Worldwide Governance metrics (Kaufman et al., 2009) to account for changes in formal institutional quality, while we apply a unique and recently developed tribal index from the University of South Florida to account for tribalism.

1. Introduction

Our study focuses on how formal and informal institutions may shape the impact of private equity entities – with these including Business Angels (BA) and Venture Capitalists (VC) – on the likelihood of retaining the entrepreneurial founder as CEO. Prior studies in the strategic management and entrepreneurship fields have identified several opportunities for private equity entities to initiate founder succession from CEO role during the early stages of the firm's life-cycle (Chahine et al., 2011; Wassermann, 2003). These include periods after initial product launches as well as the Initial Public Offering (IPO) event itself, which is a particularly prominent milestone given the transition from early stage entrepreneurial-founder led governance to that of a professional management structure (Brav and Gompers, 2003). This research is underpinned by arguments that founders may represent an important organizational resource at early stages of venture development. However, as the new venture develops, founders may have limited capabilities to drive the venture's further growth: they may lack incentives and strategic expertise, or management may suffer from founder hubris and unjustified self-confidence. The vast majority of studies have been focused on the founder succession at IPOs in the US/UK context (Jain and Tabak, 2008), with a paucity of studies that take into account the institutional perspective with its emphasis on the diversity of formal and informal institutional environments outside developed market economies. More specifically, there is a dearth of studies exploring how different constellations of formal and informal institutions may impact the value of original founders as an important organizational resource at the "threshold" juncture of IPOs.

In developed economies, resources and expertise necessary for the venture's further growth may be acquired in relatively developed factor markets, and as the venture develops and grows, its VC investors may rely less on the founder as a critical resource and more on institutionalized markets for resources, including managerial knowledge and expertise. Private equity investors are well connected to the markets for organizational resources, including that for human capital, and their involvement makes a CEO-founder succession more likely. For example, Jain and Tabak (2008) undertook a comprehensive study of founder succession at IPO in the US and found that the presence of private equity is more likely to precipitate a succession event and transition of leadership. However, this analysis is limited in scope in terms of formal and informal institutional contexts.

Contrastingly, a dominant feature of the institutional environment in many emerging economies is the propensity for extended relational contracting. This is embodied in the extensive clan and tribal systems prevalent in these nascent economies, and forms the basis of an institutional framework shaped on these deeper and more pervasive sociological features of indigenous societies (Khavul et al., 2009). Such tribal interests typically co-opt nascent external factor and managerial-labour markets, with these resources then being accessible through extended relational contracting, based on reciprocity derived from social status within tribal governance systems. Consequently, the combination of the founder's social status and their adeptness in handling tribal cultural systems underscores the significance of their human and social capital in representing the only resources available for successful venture development (Bruton et al., 2013). For example, with a limited pool of well-educated and experienced professional managers, it may prove difficult for the venture's investors to find a replacement for its founder as CEO. In this context, the legacy of an original founder, or "founder imprint" (Stinchcombe, 1965:169), becomes particularly important, and this should be recognized by the venture's early-stage investors.

We extend these preliminary insights by bringing an institutional perspective to the very heart of the founder-succession research, and considering a range of formal institutional qualities as well as variation in the informal institutional context in the form of tribalism within society. Tribalism is notably associated with powerful sociological constructs within society, based on extended social relations and reciprocity reflected in clans, ethnic lineages or extended familial arrangements (Khavul et al., 2009).

Using a unique, hand-collected and comprehensive sample of 191 firms having undertaken IPOs in 21 markets across the African continent between January 2000 and August 2016, we develop our hypotheses and empirical analysis. We integrate arguments grounded in agency- and resource-based views with the institutional perspective, in the context of founder-succession at IPO in emerging markets. Africa forms a unique laboratory within which to undertake our study, owing to its considerable intra-regional variance in formal institutional quality due to the colonial past, while indigenous societies are predominantly characterized by a juxtaposition of informal institutional tribalism alongside incongruous superimposed formal institutions that have largely been influenced by the aforementioned legacy of the colonial past. This underscores the importance of founders as an organizational resource in terms of the impact arising from formal institutional "voids" (Khanna and Rivkin, 2001; Khanna and Palepu, 2000), as well as their ability to fit in with the extended relational contracting typical in tribal societies.

We apply instrumental variable (IV) Probit methodology, which takes endogeneity into account, and find that higher levels of private equity ownership are positively associated with the probability of the founder's retention as CEO, especially in countries with

low institutional quality. Here, the voids or deficiencies in the institutional architecture underscore the importance of the founder as a key organizational resource for the firm and a source of institutionalized legitimacy, which confers on the firm an ability to access required resources. This importance seems to be well-recognized by the firm's pre-IPO investors. In high-institutional quality contexts, there is support for extensive third-party contracting and the acquisition of resources using external markets. Here, higher private equity ownership is associated with founder succession. Conversely, in societies with high tribalism, higher private equity ownership is associated with an increased likelihood of founder retention, while the opposite is true in low-tribalism contexts. Our theorizing and empirical analyses indicate that formal and informal institutions are important contingency factors that have opposing effects on key inter-relationships between private equity involvement and founder retention in emerging market IPOs.

Our study contributes to the IPO governance research literature in a number of ways. First, our theoretical approach emphasizes the use of institutionalist perspectives as opposed to a universalistic agency-theoretic approach, such as Jain and Tabak (2008) where the institutional context is viewed merely as a thin veil supporting the external contracting environment and associated theorizing. In this way, a relatively static agency view of insiders, and founders in particular, being associated with downside risks by external principals is surpassed by consideration of contextually embedded governance arrangements and the founder's role in accessing and securing resources. Second, our study contributes to the executive succession literature, where our findings underscore the importance of formal and informal institutional contexts in providing the conditions behind the integration of rival resource-dependence and agency-theory-grounded explanations of a firm's dependence on its founder's networks. Third, our study contributes to institutional theory by considering opposing simultaneous effects of the juxtaposition of formal and informal institutions in the context of founder-CEO succession. We show that the effects of private equity on this important aspect of corporate governance development in companies in emerging markets are far from being universal. The quality of formal institutions and the extent of informal tribal relationships in a particular country are among the key factors that define the overall value-added of critical governance changes at the IPO juncture of the firm's lifecycle, which provides a more contextualized theoretical analysis of the dynamics of corporate governance at key organizational thresholds.

2. Theory and hypotheses

Entrepreneurial founders are pivotal at an early stage of development of the firm, in the recognition and exploitation of economic opportunities. Support for entrepreneurs at this embryonic stage of development comes in the form of private equity (Brav and Gompers, 2003). Private equity investors initiate resource infusions, taking the form of financial as well as human and social capital, in order to effectively incubate the early-stage investee firm (Zimmerman and Zeitz, 2002). Such early-stage involvement comes in two forms: BAs and VCs. The former are notable in being informal and thus associated with greater interpersonal emphasis between the founder and the angel investor (Freear et al., 1995), which is argued to make this form of financing more resilient to pressures than the more formalized VCs (Bruton et al., 2010; Bammens and Collewaert, 2014). VCs' formality arises from their being formalized organizations in their own right, and having their own distinct investors. These typically come in the form of general partners in a VC fund, a commercial bank in the case of bank-administered VC financing, or regional state agencies in the case of state- and development-agency administered VC financing (Bruton et al., 2010). Both BAs and VCs are comparable in being early-stage investors and in being equally subject to powerful institutionalized norms centred on the globally dominant VC industry centred in the US and underpinned by an assumption of “investor supremacy” (Bruton et al., 2005).

Prior studies of the governance roles of private equity investors in firms at the IPO stage of their development emphasize the importance of formal, market-orientated risk management, transparency in reporting, as well as a variety of mechanisms designed to mitigate moral hazard – such as performance-based covenants (Bruton et al., 2010; Chahine et al., 2012). An implicit assumption transcending all of these is that the prevailing institutional framework is supportive of extensive third-party contracting and external market intermediation (Peng et al., 2008). Thus, Wasserman (2003) argues that, at junctures following new product launches, rounds of financing by private equity entities, or stock exchange listing, private equity investors are likely to initiate organizational transformation by triggering founder succession. Such founder succession results in a “*routinization of charisma*” (Weber, 1978:246), wherein the charisma of individuals is depersonalized into rules and routines associated with distinct roles within an emergent corporate bureaucracy. This adoption of a formal governance structure marks the transition from what is wholly dependent on founder charisma to a model incorporating professional management. Thus, at a certain juncture, the potential benefits associated with founder resource provision are offset by the contrasting benefits of resources procured from external intermediaries – where these are essential to maintain the venture's continued growth and development.

A contrasting picture is apparent in emerging economies, which are typically characterized by formal institutional voids or weaknesses (Peng et al., 2018) – institutional voids being defined as imperfections in financial, product, and labour markets (Khanna and Yafeh, 2007) – and by the presence of deeper informal sociological constructs such as tribal or ethnic lineage affiliations that permeate their societies (Hearn et al., 2018). While both the formal and informal dimensions are associated with deficiencies in external contracting, they do this in quite different ways. The former, namely formal institutional voids, are theoretically associated with greater importance being attached to the personal charisma of the founder, where their personal involvement in the venture is based on their personal charisma that effectively shapes the degree of altruism among immediate kin who are often also involved in the firm. In this way, the founder shapes the nascent managerial culture in the upper echelon of the firm, while the wider firm benefits from the considerable exchange legitimacy and influence legitimacy conveyed by the founder (Suchman, 1995). Thus, the founder's presence confers legitimacy and hence a powerful degree of acceptability and compatibility on the new venture. In this way,

the founder's personal charisma can act as a critical determinant of the success of early-stage marketing associated with new product launches – which is a form of the exchange legitimation – as well as reflecting dispositional or character-based congruity of the wider venture with cultural-societal norms. This acts to build trust in (e.g. Granovetter, 1985) and moral acceptability of the new venture among wider audiences and constituencies (Wassermann, 2003).

The latter, namely tribal or ethnic-lineage sociological constructs, typically originate from patriarchal, or occasionally matriarchical, notions of extended family and clans, often spanning multiple generations, and form the basis for the national culture and culturally based extended relational contracting (Bhappu, 2000). This is typically more complex and far-reaching than in Western societal contexts; in tribal-, clan- or ethnic-lineage-dominated societies, relational contracting is based on social dimensions relating to vertical subordination to authority and horizontally extended reciprocity (Bhappu, 2000). Societies based on such deeper ethnic-lineage-, tribal- and clan-based sociological structures are distinctive in being network economies. Capital, labour and product markets are relational (as opposed to transactional) in nature (Hoskisson et al., 2004), with these markets being fundamentally closed and "internal" within the extended social networks permeating the economy (Fogel, 2006). Following the institutional-based perspective of Peng et al. (2008) and Peng et al. (2018), we argue that these distinctive, culturally based, relational-contracting mechanisms underpinning tribalism form a sub-stratum of broader informal institutions that shape the strategy and governance of firms.

These distinctive sociological characteristics form the basis of both *Wasta* in Arabian-influenced societies – such as those across North and East Africa – (Berger et al., 2015; Sidani and Thornberry, 2013) and *Ubuntu* in traditional African-orientated societies (West, 2014). An individual's personal social standing has a far wider-reaching definition than in Western societies and encompasses that of both their extended family and wider clan. Thus, an individual's personal Wasta or Ubuntu is defined as an accumulation of personal, family and clan credibility and their historical behaviour.

Wasta[1] is very similar to Guan'xi in Chinese Confucianist societies in East Asia, a term which captures the dynamics of social capital and status within networks in society (Bourdieu, 1985; Nahapiet and Ghoshal, 1998) and which is a distinctive trait of societies based on collectivism and communitarianism (West, 2014). Business is undertaken through extended, highly socialized interactions, involving benevolence towards members of one's own tribal, clan and familial network, while adverse selection and moral hazard are mitigated by reputation-based credibility of both oneself and one's affiliated group (Coleman, 1988). However such extended social networks rooted in reciprocity and mutual co-ownership of assets are also apparent across Sub-Saharan Africa (see Khavul et al., 2009), where it is argued that "…African society is a system of mutually benefiting reciprocities" (Otite, 1978, quoted in Darley and Blankson, 2008:377). This is embodied in indigenous African Ubuntu, which is comparable to Wasta and similarly based on collectivism and communitarianism (West, 2014).

In emerging markets, a founder's specific value is derived either from their ability to successfully manipulate such powerful culturally based constructs that lie behind relational contracting, or from their own personal, elevated Wasta or Ubuntu social standing (Berger et al., 2015). Thus, a founder's very identity within indigenous society is a critical resource in a wider web of extended social networks based on reciprocity (Nahapiet and Ghoshal, 1998). These networks provide the basis of both the identification of entrepreneurial opportunities and the access to resources to exploit those opportunities (Khanna and Rivkin, 2001; Khanna and Palepu, 2000). These arguments are in line with organizational imprint research that suggests that the firm's strategic choices may be affected by its historic evolution, in terms of building knowledge-related, intangible resources, as well as changing financial constraints (Hannan, 1998; Helfat, 1997; Stinchcombe, 1965). Filatotchev and Piesse (2009), in their study of global IPOs, argue that a combination of these factors creates IPO imprinting conditions, and they provide empirical evidence that post-flotation strategies of newly listed firms are path-dependent, with past investment in intangible assets such as patents, licenses, specific expertise, etc., having an impact on post-IPO development strategies. As we indicated above, in emerging markets, founders' social and human capital represent a core intangible resource, making founder retention more value-creating, in line with prior work on imprinting (e.g., Stinchcombe 1965:169).

These arguments combined have a twofold impact on the relationship between private equity ownership and founder's retention as CEO in founder-led firms at IPO. Firstly, from the resource-based view, holding significant ownership stakes provides private equity investors with the opportunity to appropriate value-added associated with the founder, the founder being a key organizational resource. Secondly, from an agency perspective, private equity investors may require a higher degree of control, associated with elevated cash flow rights, to constrain the downside risks related to founder retention (Fama and Jensen, 1983). In emerging markets, this includes potential risks associated with the founder's implicit involvement within extended, socially defined, reciprocal networks underpinned by culture-based relational contracting. Theoretically, this emphasizes the importance of relational contracting – both to mitigate the adverse selection problem in selecting investment targets, and to decrease moral hazard costs. Furthermore, this underscores the fundamental importance of socialized networks and relational contracting, in terms of the acquisition of resources for the early-stage entrepreneurial firm in an emerging economy (Bourdieu, 1985; Nahapiet and Ghoshal, 1998). The founder is of paramount importance to the venture, while the private equity, themselves subject to the institutionalized need for legitimacy within the indigenous context (Suchman, 1995), also recognize the importance of social contracting. In this way, private equity – and particularly VC managers – with a significant ownership stake in the entrepreneurial firm will place greater emphasis on conformity

[1] Berger et al. (2015) define Wasta in terms of three relational constructs. Firstly, there is Mojamala - defined as socio-emotional feelings of participants in a transactional relationship, corresponding to stimulating feelings of well-being and enduring friendship. Secondly, Hamola corresponds to human empathy, benevolence and favouritism, which in a tribal, clan or familial context is often confused with the Western concept of nepotism. Thirdly, Somah is the cognitive component of Wasta, centred on the mutual credence in a relationship. This is in turn based on mutual past history, tribe reputation and an individual's personal reputation and past actions.

with the dominant prevailing institutional logics shaping indigenous society, as opposed to the US-centred norms dominating the investment notions prevalent in the global industry (see Bruton et al., 2005). Given these arguments, we propose the following hypothesis:

Hypothesis 1. In emerging markets, private equity ownership is positively associated with the founder as CEO at IPO.

2.1. Quality of formal institutions

We argue that the quality of formal institutions is a natural candidate to moderate our hypothesized association between private equity ownership and founder retention as CEO at IPO. Low-institutional-quality contexts are representative of voids or deficiencies that inhibit effective intermediation of external resource markets (Zimmerman and Zeitz, 2002; Fogel, 2006). These resources include factors of production, managerial labour and capital (Khanna and Yafeh, 2007). From the agency perspective, such voids exacerbate asymmetric information by decreasing transparency, and reduce the effectiveness of enforcement mechanisms designed to support third-party contracting and the protection of property rights inherent within it (Khanna and Palepu, 2000). In this case, private equity requires higher levels of control to constrain the downside risks of founder opportunism, in the light of weaker external formal institutional mechanisms by which they might otherwise protect their property rights, and to mitigate these agency and contracting costs (Khanna and Rivkin, 2001).

Further, in terms of providing a new venture with necessary resources, there is a much greater emphasis on social networks and relational contracting (Nahapiet and Ghoshal, 1998), including the role of founder networks, in terms of acquiring resources vital to the success of the firm (Hoskisson et al., 2004), which is recognized by private equity entities. Again, in a less developed institutional environment, access to these founder-related resources becomes particularly important in terms of the venture's value creation and growth.

Conversely, in more developed regulatory institutional environments, the VCs need less controlling power to reduce the downside effects of founder-CEO opportunism (Bruton et al., 2010). Enhanced legal and judicial mechanisms, as well as transparency, protect against infringements of the property rights of contracting parties. Private equity investors also have less value associated with founders, as the latter can be replaced in more developed managerial labour markets (Moore et al., 2012). Private equity investors recognize this improvement in institutional and contracting environments in terms of a transition in the firm's organization towards a more professionalized and formal management structure that can better cope with the demands of external resource markets (Bruton et al., 2010). These markets are governed by labour associations, such as unions and capital market associations, that ensure conformity with listings and regulatory rules, as well as investor requirements for transparency and reporting, and professional product market associations (Jain and Tabak, 2008). These aspects lead the firm towards calling on very different skill sets from the early-stage entrepreneurial founders, providing the motivation for a transition in leadership. In this way, formal institutional quality is a powerful contingency factor that moderates our base association between private equity ownership and founder retention in emerging market IPOs, identified in Hypothesis 1. These theoretical arguments are outlined in Fig. 1. Based on them, we suggest the following hypothesis:

Hypothesis 2. In emerging economies, formal institutional quality will negatively moderate the relationship between private equity ownership and founder's retention as CEO at IPO.

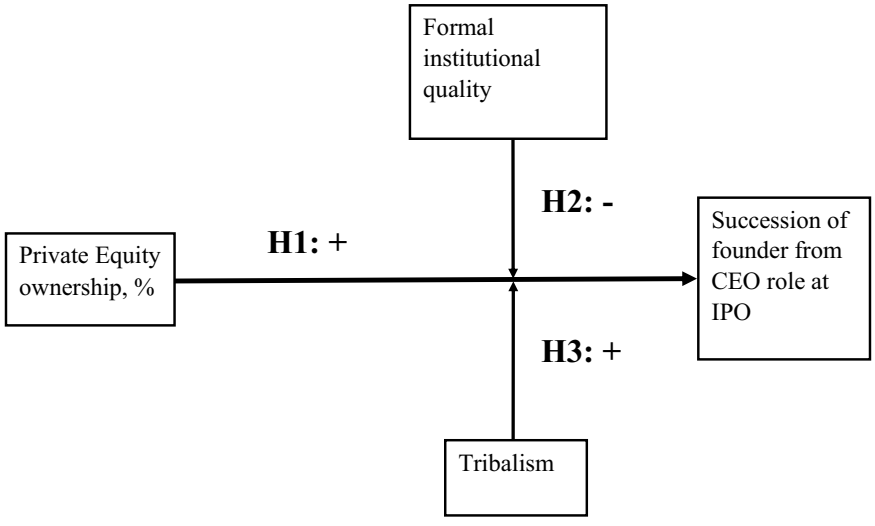

Fig. 1. Theoretical associations.

2.2. Informal institutions and tribalism

Extending our institutional perspective outlined above to informal institutional settings, we further argue that tribalism is another important contingency factor that moderates the association between private equity ownership and founder retention. More specifically, tribalism mitigates the existing institutional "voids" view of deficiencies in the external contracting environment in emerging markets (Khanna and Rivkin, 2001; Khanna and Palepu, 2000), capturing the extended relational dynamics that govern all social and economic transactions within such societies.

As argued above, founders provide access to otherwise inaccessible resources – obtained through their accumulated Wasta or Ubuntu social status in personal networks (Berger et al., 2015; Sidani and Thornberry, 2013) – while also being able to use this status to instigate some measure of institutional decoupling from the collectivist notion of mutual co-ownership of economic assets. In this way, extended multi-generational definitions of family or clan act as a cohesive social welfare system, providing mutual economic assurance to all members, through powerful notions of altruism linked to an individual's personal identity. Such mutuality is a potential issue when extended clan and familial members are able to exercise their mutual co-ownership claims (Khavul et al., 2009), while the legitimacy of the founder acts to inhibit this behaviour if they retain control over the entrepreneurial venture. Thus, when tribal institutions dominate, the probability of founders pursuing non-financial and socially constructed objectives is higher, as is the likelihood of their being subjected to financial support claims from extended family and clan members. Therefore, private equity needs higher monitoring power through elevated ownership to mitigate the founder opportunism that may be particularly likely and severe in this institutional context.

From the resource-based view, the importance of the founder within network economies is paramount – in accessing resources through personal Wasta or Ubuntu – while at same time dis-embedding economic assets of firm from being dispersed across wider clan or extended family. Founders' personal charisma on the one hand acts to dis-embed the organization from competing mutual co-ownership claims over resources. On the other hand, it provides the venture with considerable personal and firm-wide character or dispositional legitimacy, arising from the inextricable ties between the founder's personal identity and that of the firm. The accentuated importance of the founders in socialized network economies such as those within tribal societies is not lost on private equity entities who themselves are either drawn from the same cultural background, such as BA investors, or must necessarily fit in with it in order to do business, such as VCs (Peng et al., 2008, 2018). Therefore, the founder's value to the venture is much higher in the context of high tribalism, implying more opportunities for the appropriation of value by private equity when external investors hold a significant ownership stake in the venture.

Conversely, in societies with low tribalism, there is less institutionalized necessity for relational contracting, given the inherent differences in the institutional framework, which supports third-party, "arm's length" contracting (e.g. Peng et al., 2018). As such, intermediation is undertaken externally in fundamentally open markets for resource procurement, as opposed to essentially closed, internally undertaken, intermediation based on relational contracting as happens in tribal societies. This is reflected in private equity being more subject to institutional norms based on the globally dominant US industry (Bruton et al., 2005) and less subject to potentially counter-balancing needs to attain legitimacy from incongruous indigenous cognitive institutions based on tribalism. Further, weaker tribal connections of the founder make it less likely that s/he will pursue socially embedded, non-economic objectives (Coleman, 1988). Therefore, private equity investors are more likely to seek founder succession in societies with less tribalism, in order to initiate a transition to a professionalized management structure so as to take advantage of externally procured resources.

Theoretically, we therefore anticipate a positive moderation effect of tribalism on the association between founder retention and private equity ownership, and we propose the following hypothesis:

Hypothesis 3. In emerging economies, the extent of informal tribal relationships will positively moderate the relationship between private equity ownership and founder's retention as CEO at IPO.

To summarise our theoretical arguments, we propose a contingency model with a base effect and two contingency (moderating) effects, as outlined in Fig. 1.

3. Data and methodology

3.1. Sample

To study the interplay between formal and informal institutions, we focused on IPOs in African countries, a region characterized by a complex patchwork of formal institutions established by various colonial rulers in the past, as well as a diverse pattern of more long-term, historic tribal links and associations. A further observation can be made regarding institutional quality, tribalism and legal origin. While African countries' legal systems can easily be classified as either common law or civil code law, this dichotomous classification is better suited to reflecting the structure of the economic system, rather than to making inferences on institutional quality as is undertaken by La Porta et al. (1997, 1998). It is evident that some common-law countries, such as Nigeria and Zambia, have equally poor institutional quality as civil-code-law counterparts such as BRVM (Cote d'Ivoire), Mozambique, Egypt and Algeria. Countries adhering to common law yield greater institutional support for external markets, and at least provide a basis for arm's length contracting, while their civil-code-law counterparts are rooted in the "*Dirigiste*" or state-led capitalist model (Hearn, 2015). Here, the state either directly or indirectly exerts control over factor markets.

There is considerable variation within the generic classifications of civil-code and common-law jurisdictions. This is exemplified

on the one hand by Algeria and three cantonments (provinces) of Sénégal that were administered by colonial authorities as an integral part of metropolitan France, while on other hand national frameworks such as that of Egypt were established through Napoleonic conquest but then subject to substantive reform by English common law through incorporation into the British empire (Hearn, 2015). South Africa and, by virtue of colonization, its neighbour Namibia both adhere to Roman-Dutch civil code law – transplanted to Southern Africa prior to the Napoleonic conquest of the Netherlands.[2] However, all transplanted European-origin formal institutional frameworks have been subject to varying degrees of assimilation into the indigenous societal matrix, often leading to their incorporation within tribal systems. Regulatory "capture" of formal transplanted frameworks, by elites drawn from a handful of ethnicities or clans (Hearn et al., 2017), has degraded the impartiality of such institutions (Hearn, 2015), and generated disenfranchised populaces within underlying, essentially feudal, systems. This emphasizes the importance of founder networks in obtaining resources for entrepreneurial ventures.

The dataset was constructed in three stages. First, a list of IPOs between January 2000 and August 2016 in African markets was identified. The markets include Algeria, Egypt, Morocco, Tunisia, the Cape Verde Islands (Bolsa de Valores de Cabo Verde), Cameroon (Bourse de Douala), BRVM (Cote d'Ivoire), Sierra Leone, Malawi, Kenya, Uganda, Rwanda, Tanzania, the Seychelles, Zambia, Namibia, Botswana, Mozambique, Mauritius and Ghana. Our primary source here was the national stock exchanges and their associated websites, and these were cross-checked against lists sourced from major brokerage houses to ensure accuracy, in the case of Nigeria and Zambia. This resulted in a preliminary population of 380 stock listings.

At the second stage, to ensure that our population actually covered IPOs and not private placements, the IPO prospectuses were obtained. The IPOs included are offerings that produced a genuine diversification of ownership among a base of minority shareholders (as opposed to private placements involving the preferential allocation of stock with institutional or corporate block holders in pre-arranged quantities and prices). Equally, care was taken to avoid misclassifications with registrations, introductions and seasoned (secondary) offerings, as these are often also officially referred to as IPOs. Furthermore, IPOs are defined as offerings of ordinary shares with single-class voting rights, that is, excluding preferred stock, convertibles, unit and investment trusts, as well as readmissions, reorganizations, and demergers and transfers of shares between main and development boards. In lieu of these efforts to solely focus on IPOs, our final population was reduced to 276 genuine IPO firms.

In the third stage, we focused on domestically listed private-sector firms, which led to the exclusion of state privatizations and joint ventures – whose governance structures are very different from those of conventional firms. This brought the total number of genuine private-sector IPOs down to 201. Finally, we found missing values in terms of published age – or year of IPO firm establishment – for two firms and missing disclosure of shares offered to retail investors at IPO for one firm. Additionally, it should be noted that, in our later-stage modelling utilizing the two-stage IV probit configuration and STATA, all six observations in 2016 and the one observation in 2009 are omitted due to collinearity with our binary dependent variable. This leaves our final sample comprising 191 IPOs, with the ten missing values being distributed evenly throughout the sample.

Data on IPOs were collected from the financial market regulator websites for Algeria and Morocco, while a combination of Thomson Corporation Perfect Information and Al Zawya databases was used for Egyptian prospectuses. The Al Zawya database, the national stock exchange and direct contact with individual firms were used to source prospectuses for Tunisia. Similarly, in Sub-Saharan Africa (SSA), the prospectuses were obtained from the Ghanaian, Tanzanian, Cape Verdean, and Sierra Leone national stock exchanges, and the exchange websites in the case of the Seychelles and Cameroon. The Thomson Corporation Perfect Information database was used in the first instance to source prospectuses from Nigeria, Malawi and Kenya. Pangea Stockbrokers (Zambia) as well as individual floated firms provided prospectuses for the Zambian stock market. Finally, in SSA, the African Financials website (2014) provided information from annual reports relevant to listing. These sources are listed in Appendix Table 1.

Considerable care was taken in the interpretation of information from IPO listings prospectuses, given the considerable variation in size and quality of these filings across the continent. Examples range from inaccuracies in values and units of measurement in Egypt (such as units being stipulated in prospectuses as billions while additional verification confirmed the values to be denominated in millions), to omissions and inaccuracies in the balance sheets in the prospectuses of many smaller Nigerian firms. Attempts to verify data from prospectuses with additional sources such as firm websites, annual reports and mandatory filings of annual accounts were made wherever possible.

We employed a variety of additional resources to identify and confirm the VC and BA investors within focal IPO firms in our sample. Hence, we looked for further support in internet-based local media, stock exchange descriptions and regulatory filings. These were also supplemented by analyses of the web-based resources of the *Egyptian Private Equity Association* (EPEA), the *African Private Equity and Venture Capital Association*, and the *South African Venture Capital and Private Equity Association* (SAVCA).

The identification of BA investors is altogether more complex, owing to the inherent lack of transparency in these often extremely informal markets. We build our identification in line with that undertaken by Bruton et al. (2010) in their study of the UK and France. Consequently, we identified BAs through the prospectuses as those who had invested in the venture as private individuals, other than those associated with founders, other board members, senior management, or VCs. We also supplemented our identification through the extensive use of internet-based access to local indigenous media, to provide further verification (see Appendix Table 1). The use of local media and business journals is essential in a region with BA markets that are notoriously informal in nature and with few, if any, organized associations of angel investors.

[2] South Africa and Namibia are examples of Easterly and Levine (1997)'s "settler based systems" which, following the initial transplantation of Roman-Dutch civil-code institutional frameworks, evolved indigenously through an active Afrikaans-speaking (an ancient form of the Dutch language) judiciary and population.

Table 1
African IPO equity market characteristics for sample period 2000 to 2016.

Table providing descriptive statistics for all African IPOs between January 2000 and August 2016. $\mathbf{N_s}$ is final sample size of genuine private sector IPO firms (omitting state privatization and foreign subsidiaries/joint ventures). Tribal index is sourced from University of South Florida from http://usfglobalinitiative.org/ and is constructed from several underlying variables – all of whom are sourced and defined in Appendix Table 2. Institutional quality is the equally weighted average of the six individual World Bank governance institutional quality indices developed by Kaufman et al. (2009) across all markets with these having been rescaled on a 0–1 scale and then expressed as a percentage. These too are defined and sourced as in Appendix Table 2. The final four columns represent the numbers of IPO firms per market that retain their founders as CEO at IPO, then of these the number with BA, domestic VC and foreign VC participation in ownership structure. Compiled by authors from IPO listings prospectuses.

Market	Tribal index	Institution quality	N_s	Number (#) of IPOs with the below categories of ownership and control per market							
				CEO-Founder Firms				Non founder-led firms			
				Overall	Business Angel	Venture Capital		Overall	Business Angel	Venture Capital	
						Foreign	Domestic			Foreign	Domestic
	%	%	#	#	#	#	#	#	#	#	#
North Africa											
Algeria	71.00	33.77	3	2	–	3	–	1	–	1	1
Egypt	68.00	38.94	11	6	11	1	6	5	6	2	3
Morocco	72.00	46.82	37	15	4	2	20	22	7	4	9
Tunisia	53.00	48.88	39	26	11	8	16	13	1	–	10
East Africa											
Kenya	81.00	39.06	7	3	1	–	1	4	–	–	1
Mauritius	51.00	72.11	13	5	2	–	3	8	–	2	–
Seychelles	51.00	56.15	3	2	–	–	–	1	–	–	–
Tanzania	64.00	42.95	7	2	–	–	–	5	1	–	–
Rwanda	55.00	51.92	1	0	–	–	–	1	–	–	–
Uganda	71.00	39.37	1	1	–	–	–	0	–	–	–
West Africa											
Nigeria	84.00	29.09	31	17	9	5	1	14	2	1	5
BVRM	70.83	42.22	6	1	–	–	–	5	1	9	–
Ghana	61.00	52.84	15	9	–	–	1	6	6	2	1
Cape Verde Is.	35.00	58.62	1	0	–	–	–	1	–	–	–
Sierra Leone	68.00	36.08	1	1	–	–	–	0	–	–	–
Southern Africa											
Botswana	46.00	68.88	7	3	2	1	2	4	–	4	0
Malawi	67.00	48.87	1	0	–	–	–	1	0	1	0
Zambia	72.00	46.88	2	1	–	–	–	1	–	–	–
Namibia	51.00	61.17	4	3	–	–	–	1	–	2	1
Mozambique	56.00	44.56	1	0	–	–	–	1	–	–	–
South Africa	52.00	59.26	10	6	4	4	2	4	–	–	3
Overall	64.72	47.21	201	102	44	24	52	99	24	27	34

The evidence from Table 1 reveals that Egypt, Morocco, Tunisia, Nigeria and Ghana account for the majority of IPOs across the continent – and also account for the overwhelming majority of founder-led listings. Private equity activity, however, is more reflective of the size and prosperity of the indigenous economies. Thus, BA participation in firms is primarily concentrated in the North African markets of Egypt, Morocco and Tunisia, along with Nigeria, while almost all domestic VC and all foreign VC activity is concentrated in North Africa, with the notable exceptions of Nigeria and South Africa.

More generally, the evidence from Table 2 reveals that both VC and BA investment across Africa tends to be syndicated – especially where target firms are deemed more risky in being entrepreneurial ventures led by their founders. This syndication improves the ongoing monitoring and surveillance of investments (reduction of ex-post moral hazard) because multiple private equity entities within a syndicate are able to assess each other's appraisals of the target investee firm (Barry et al., 1990; Sahlman, 1990). Syndicate sizes of between three and four are typically observed in founder-led IPO firms for BAs ($p \leq 0.10$), domestic VCs ($p \leq 0.01$) and foreign VCs ($p \leq 0.05$), as compared to between two and three for their non-founder led counterparts. Evidence regarding board participation is much more mixed, with BAs ($p \leq 0.10$) and foreign VCs typically having higher levels of participation, with at least one nominee director. It should be noted that board representation is typically undertaken by the syndicate lead, who typically possesses the largest ownership holding. Finally, the number of investment exits at IPO is minimal across all categories of private equity, while the proportion of IPO investment targets for which the private equity entity does not divest any ownership is approximately one third of the sample in each case. This would indicate that all private equity entities view the IPO as one step in a much longer investment cycle than current theory based on the US and the lifecycle of the firm suggests.

Table 2
Private equity investment descriptive statistics.

Table provides descriptive statistics regarding private equity characteristics for the three types of private equity: Business Angels, Domestic and Foreign Venture Capital. Their involvement and engagement in IPO firms that either retain their founders as CEO or have a professionalized CEO are reported. In terms of involvement and #IPO firms with PE involvement is the total number of IPO firms that have that category of private equity involvement. #Private equity involved in IPOs is the total absolute number of private equity entities participating in a given category of IPO firm (founder retained or founder succession). In terms of ownership and #Exits is the total number of private equity exits, or full sale of entire holdings, undergone in the IPO. #Private equity reducing holdings is the absolute number of private equity entities that used the IPO to reduce their holdings (ownership). Mean ownership pre-IPO% and Mean ownership post-IPO% correspond to average size of holdings of each private equity entity prior and following IPO. In terms of board participation and "% PE target IPO firms with Min. 1 PE director" corresponds to the percentage proportion of private equity investments (namely the target IPO firms) that have at least one director as a nominated representative of private equity firm. "Mean #PE directors in firms that have PE board participation" is the average number of private equity representative directors in investee target IPO firms in those specific cases where nominee directors have been installed to monitor investments. In terms of investment strategy: syndication and "#IPO firms with syndicates" is the total number of IPO firms with private equity syndicates (syndicated investment), "Mean % pre-IPO holding for syndicate lead" is average holding for the syndicate lead, and "Mean % pre-IPO holding for syndicate subordinates" is average holding for the syndicate subordinates. "Mean #All BA/VC in syndicate" is the average number of private equity entities involved in syndicate. Mean #VC in syndicate and Mean #BA in syndicate are the average numbers of VC and BA within syndicate.

	Business Angel		Domestic VC		Foreign VC	
	73 individuals		87 entities		47 entities	
	Founder = CEO	Founder < > CEO	Founder = CEO	Founder < > CEO	Founder = CEO	Founder < > CEO
Involvement						
#IPO firms with PE involvement	26	19	24	21	14	16
#Private equity involved in IPOs	47	27	57	30	28	19
Ownership						
#Exits	2	0	0	1	2	3
#Private equity reducing holdings	31	22	32	18	18	13
Mean ownership pre-IPO%	8.66%	6.45%	**6.03%***	9.39%	11.48%	16.48%
Mean ownership post-IPO%	4.69%	5.03%	**5.94%**†	8.08%	9.88%	13.68%
Board participation						
% PE target IPO firms with Min. 1 PE director	**38.00%**†	26.00%	31.00%	40.00%	45.00%	38.00%
Mean #PE directors in firms that have PE board participation	1.00	1.00	1.92	1.00	1.90	2.20
Investment strategy: syndication						
#IPO firms with syndicates	10	6	10	9	4	8
Mean % pre-IPO holding for syndicate lead	10.47%	7.91%	11.37%	10.84%	8.71%	16.84%
Mean % pre-IPO holding for syndicate subordinates	4.81%	3.93%	5.86%	6.32%	4.16%	7.22%
Mean #All BA/VC in syndicate	**3.11**†	2.67	**3.21*****	2.43	**3.59***	2.77
Mean #VC in syndicate	–	–	**2.86*****	2.07	**3.14***	2.31**
Mean # BA in syndicate	**2.57**†	2.04	–	–	–	–

† $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.005$.

3.2. Dependent variable

We follow Jain and Tabak (2008) in coding our binary dependent variable to take the value 1 if the founder is the CEO at IPO and 0 otherwise. This provides a simple decision rationale upon which to base our study.

3.3. Explanatory variables

We designate private equity ownership, the focus of our hypotheses, within the context of its two disaggregated components, namely the percentage levels of pre-IPO ownership by BAs and VCs respectively. This corresponds to Hypothesis 1. All values were sourced from in-depth studies of individual IPO listings prospectuses, providing data on pre- and post-IPO ownership structure, including the equity stakes of all investors. We followed previous studies (e.g. Bruton et al., 2010) and used the percentage ratio of the total number of ordinary shares a particular early-stage investor owned prior to the IPO, to the total number of firm shares prior to the IPO.

3.4. Moderating variables

We used two institutional metrics to moderate the association between different categories of block ownership and firm-level adoption of Anglo-American governance. The first institutional variable accounts for formal institutional quality, and is an aggregate variable constructed from an equally weighted average of six World Bank governance metrics (Kaufman et al., 2009). Detailed definitions of the six metrics are provided in Appendix Table 2. These six were rebased to a 0–10 scale prior to aggregation. The second variable is the Tribalism index, accounting for informal societal institutions based on tribalism, recently developed by the University of South Florida. The index is built as a composite of a number of distinct underlying metrics capturing the dynamics of tribal institutional frameworks, as outlined in Appendix Table 2. The first of these underlying characteristics is corruption perceptions capturing nepotism. The second is ethnic fractionalization, which develops from the concept of an ethnically fractious or heterogeneous society, while the third is the proportion of indigenous populations, which enables the tribalism measure to be generalized internationally. The fourth is gender equality – capturing the degree of patriarchy or matriarchy within society, which is a central feature of tribalism. The fifth is a measure capturing the degree of group grievance, which captures frictions within society – a ubiquitous feature of tribal societies. We followed methods suggested by Liu et al. (2014) for exploring moderating effects with an index. However, in order to mitigate the potential effects of collinearity, we centred and normalized both indices. We also recursively added in each index, thereby avoiding their joint inclusion within any model. The use of these variables corresponds to Hypotheses 2 and 3.

3.5. Control variables

We incorporated six distinct sets of control variables. The first consists of *institutional controls* and includes a legal-origin binary dummy (1/0), one denoting a civil-code-law regime, alongside an aggregate institutional quality index and a tribal index. The inclusion of these indices was necessitated by our interactive analysis using the methodology of Liu et al. (2014).

We also needed to control for various governance factors that might determine CEO succession, as identified by prior agency-grounded studies. Therefore, the second group consists of *board controls,* reflecting both executive decision monitoring and control (Fama and Jensen, 1983) and the resource-dependence view of board members securing access to information and resources that ensure the survival of a firm (Boyd, 1994; Pfeffer and Salancik, 1978). The latter perspective implies that non-executive directors provide more boundary-spanning abilities, through access to valuable resources for the firm. Thus, we include controls for the natural logarithm of board size, in terms of the total number of executive and nonexecutive directors, and an outsider nonexecutive ratio, defined as the number of outside, independent and unaffiliated nonexecutives divided by board size, as well as the ratio of non-executives drawn from social elite backgrounds to board size, and the ratio of the number of business-group-affiliated directors to board size. These latter two ratios control for the potential presence of business groups and social elites, both of which are drawn from the indigenous political economy and manifest themselves in terms of usurping control and legitimacy away from the founder, or vying for such control and legitimacy.

The third group consists of four *firm-specific controls.* In line with Sanders and Carpenter (1998) and Finkelstein and Boyd (1998) we use the natural logarithm of a firm's pre-tax revenues (or sales) in the last reported year prior to the IPO as a proxy for size, assumed to control for the complexity of a given firm's operations and thus mirroring the complexity of the task environment, which in turn is reflective of the information-processing requirements of the board. We adopt the accounting return on assets (ROA)[3] in the last reported year prior to the IPO as a measure of firm performance, in line with Finkelstein and Boyd (1998) and Khanna and Palepu (2000). We also control for firm age, defined as the difference between IPO year and year of foundation, older firms being anticipated to have larger, more complex operations, mirroring more complex task environments. This variable also controls for the "liability of newness" and the considerable information asymmetries generated by a lack of operational and performance history (Arthurs et al., 2008). Finally, following Andersen et al. (2003), we introduce the ratio of debt to equity, as a control for financial leverage or gearing[4] in the last reported year prior to the IPO. This variable captures the differential use of debt as opposed to equity, as a governance mechanism, as well as providing a measure of the institutionalized religious prohibition of interest-based debt instruments, which is prevalent in Islamic shari'ya informal institutions (Kuran, 2004).

The fourth group encompasses *ownership control variables.* We account for concentrated shareholdings of the CEO, family and corporate block entities. Such concentrated ownership by the CEO facilitates their ability to decouple the firm and its economic assets from the institutionalized notions of mutual co-ownership and reciprocity across the wider clan or extended family. Family ownership represents a mechanism by which this entity can exert significant coercive institutional pressures on a firm's organizational structure (DiMaggio and Powell, 1983). Our third ownership control accounts for pre-flotation ownership by corporate block entities.

[3] ROA is conventionally defined as ROA = (Net Income + Interest ∗ (1 − Tax Rate)) / Total Assets (see Khanna and Palepu, 2000). However, due to significant variation in the data arising from varying reporting standards across Africa, with frequent omission of reported interest income and corporate taxation rates from listings prospectuses, we used a modified version of this, namely ROA = Net Income / Total Assets. However, while both measures suffer from business cycle effects and are not forward-looking, they do provide a representative indication of firm performance subject to the data limitations prevalent in emerging economies.

[4] In contrast to Bruton et al. (2010), where the ratio of debt to assets was used, we used the debt-to-equity ratio. While this is vulnerable to variations between the static accounting valuation of equity and the market valuation, and is vulnerable to the business cycle, it both captures the preference for the use of debt, and importantly the degree to which debt is used, and is at the same time a "rules-based" governance instrument limiting managerial discretion and mitigating potential agency conflicts.

The fifth group contains an *IPO-specific control variable,* to account for the demand for equity finance in terms of the demographic marketing of shares offered at IPO to minority outsider retail investors. The ratio of shares offered at IPO to total shares issued and outstanding post-IPO provides an indication of the willingness of the founder-CEO to incorporate the coercive institutional pressures, arising from the active management processes of external investors, into the organizational structure.

3.6. Empirical model

A primary consideration in our choice of empirical model is that of causality arising from endogeneity issues. Endogeneity is a significant concern in relation to the linear unidirectional association and expected causality between the dependent variable (likelihood of founder being retained as CEO at IPO) and the pre-flotation ownership by private equity entities (BAs and VCs). This renders the simple assumption of linear causality unreliable, with a probit or logistic model potentially overestimating the importance of these ownership variables (Hamilton and Nickerson, 2003) in explaining the likelihood of the outcome. Consequently, we follow Bruton et al. (2010) in adjusting for potential endogeneity between the dependent and explanatory independent variables by applying an initial estimation step, using OLS, with exogenous instruments included on top of all the controls used in the main parts of the analysis. However, given the incompatibility of errors between separately undertaken preliminary OLS and later-stage probit models, we adopt the IV probit model with maximum likelihood estimation format. The exogenous variables selected are the numbers of each category of private equity entity involved in each respective IPO, i.e. the numbers of BAs in the regression with dependent variable BA pre-flotation ownership, then the numbers of domestic VCs with dependent variable domestic VC pre-flotation ownership, then finally the numbers of foreign VC entities with foreign VC pre-flotation ownership as the dependent variable.

Our empirical model is the IV probit, which is estimated through two distinct steps. We use this because endogeneity implies that one or more regressors is likely to be correlated with the error term in a conventional single-step probit model. The Newey (1987) two-stage estimation process involves OLS as our first step, and probit modelling as our second. Formally, the model is

$$\begin{aligned} y_{1i}^{*} &= y_{2i}\beta + x_{1i}\gamma + u_i \\ y_{2i} &= x_{1i}\prod\nolimits_{1} + x_{2i}\prod\nolimits_{2} + \upsilon_i \end{aligned} \tag{1}$$

where $i = 1, \ldots\ldots N$, y_{2i} is a $1 \times p$ vector of endogenous variables, x_{1i} is a $1 \times k_1$ vector of exogenous variables, x_{2i} is a $1 \times k_2$ vector of additional instruments, and the equation for y_{2i} is written in reduced form. By assumption, $(u_i, \upsilon_i) \sim N(0, \Sigma)$ where σ_{11} is normalized to one to identify the model. β and γ are vectors of structural parameters, and Π_1 and Π_2 are matrices of reduced-form parameters. This is a recursive model: y_{2i} appears in the equation for y_{1i}^{*} but y_{1i}^{*} does not appear in the equation for y_{2i}. We do not observe y_{1i}^{*} – instead, we observe

$$y_{1i} = \begin{cases} 0, & y_{1i}^{*} < 0 \\ 1, & y_{1i}^{*} \geq 0 \end{cases} \tag{2}$$

The order condition for identification of structural parameters requires that $k_2 > p$. Furthermore, the model is derived under the assumption that (u_i, υ_i) is independent and identically distributed multivariate normal for all i.

In practice, OLS regressions are run first between the endogenous variables and the instruments – where these include all exogenous variables too. There are only as many first-step OLS regressions as there are distinct endogenous variables – for which appropriate orthogonal instruments should be identified and included alongside the exogenous variables. The errors from this first step are then included in the second IV probit model – including representations of the endogenous variables alongside the exogenous variables.

Two Wald test statistics are reported. The first is related to the null hypothesis that all parameter coefficients of the model(s) are jointly equal to zero, with the test statistic following a χ^2 (chi-square) distribution. The second focuses on the null hypothesis that the υ_i in the first-step OLS model are equal to zero, and again distributed as a χ^2 distribution. If these null hypotheses are rejected then the covariates are indeed exogenous, while the overall model is of significance in its prediction capacity, i.e. the Wald statistic can be viewed as a means of discriminating between rival IV probit models.

We test two sets of IV probit models, relating to each of our three hypotheses in turn. The first simply tests the likelihood that the two private equity categories' (BAs' and VCs') cash flow ownership, as endogenous variables, influence the likelihood of the founder's retention as CEO at IPO. This uses the numbers of BAs and VCs respectively as two orthogonal IVs. Our various categories of controls form the exogenous variables, in addition to industry and time fixed effects. Two preliminary OLS regressions are run, with the dependent variable in each case being the private equity ownership. In each regression, both IVs are included alongside each other – namely the numbers of BAs and VCs respectively – in addition to the exogenous controls.

The second stage involves the final conditional probit modelling, with the dependent variable being the binary (1/0) likelihood of the founder being retained as CEO at IPO. The independent variables are then estimates of, firstly, private equity ownership, and then, the disaggregated BA and VC components of ownership, on top of the exogenous controls. Differences between countries (institutional environments) are accounted for with the institutional quality controls. Additional country fixed effects are not used, so as to avoid the dummy variable trap (Wooldridge, 2009)[5] and a marked reduction in maximum likelihood in the final models, due to

[5] If dummy variables for all country (and time) categories were included, their sum would equal 1 for all observations, which would be identical to and hence perfectly correlated with the vector-of-ones variable whose coefficient is the constant term; if the vector-of-ones variable were also

reduced informational content should they be included.[6] However, industry and time (year) fixed effects are applied across all models. Industry controls capture diversification differences – a key feature in business groups (Khanna and Palepu, 2000) – while year effects relate to variations in institutional development and improvements in regulations, capital market culture, and surveillance environment. The industry definitions vary across each country (see Khanna and Rivkin, 2001, for details of similar issues in a comparable study of 14 emerging economies), leading us to adopt Bloomberg basic industry definitions.[7]

4. Results

The correlation patterns outlined in Table 3 indicate no multi-collinearity problems. This is also separately confirmed from variance inflation factors which are all under 4. Furthermore, the correlations between the instruments (numbers of private equity investors) and the dependent variable are both small in absolute value and lacking statistical significance, whereas the correlations between the instruments and the potentially endogenous explanatory variables (i.e. ownership of private equity investors) are strongly significant (Hamilton and Nickerson, 2003). Following Bruton et al. (2010), our choice of instruments to account for endogeneity is supported by their high correlations with the private equity pre-flotation ownership and minimal correlations with all other variables.

The results of our hypothesis tests from the second stage of the IV probit models are detailed in Table 4. The evidence statistically supports the maintenance of our three proposed hypotheses. We observe a positive association between private equity pre-flotation ownership and likelihood of founder as CEO at IPO (see Table 5, model 1), as proposed in Hypothesis 1. Drawing on the marginal effects, and a one unit change in private equity pre-flotation ownership equates to a 2.28% increase in the likelihood of founder retention as CEO at IPO.[8] This association is inversely moderated by institutional quality ($p \leq 0.01$) (Table 4, model 2), which provides statistical support for *Hypothesis 2*. Conversely, the association is positively moderated by the tribal index ($p \leq 0.01$) (Table 4, model 3), which provides statistical support for *Hypothesis 3*. Again, using marginal effects, a one-unit change in moderation by the tribal index equates to a 4.08% increase in the likelihood of founder retention as CEO at IPO.

In terms of the controls, the founder's retention as CEO at IPO is associated with a firm being located within a common as opposed to a civil code law jurisdiction ($p \leq 0.01$), and with contexts characterized by weaker formal institutional quality ($p \leq 0.10$) and lower levels of tribalism ($p \leq 0.01$). Founder retention at IPO is also associated with larger boards ($p \leq 0.05$), with fewer social elites on boards ($p \leq 0.05$), and with business-group-affiliated nonexecutives ($p \leq 0.10$). Again, in terms of the marginal effects, this implies that a one-unit increase in the board size, the proportion of social elites on the board and the ratio of business-group-affiliated directors on the board would lead respectively to an increase of 127.10%, and decreases of 216.87% and 121.43% in the likelihood of founder retention as CEO at IPO. Founder CEOs at IPO are also associated with smaller ($p \leq 0.10$) and younger ($p \leq 0.01$) firms and less debt in relation to equity financing ($p \leq 0.10$). Retention of founder is also associated with elevated CEO and family ownership ($p \leq 0.01$) and lower levels of corporate block ownership ($p \leq 0.05$), and with reduced dilution of the shareholder base ($p \leq 0.01$).

Finally, the Wald tests for exogeneity across all models are large, suggesting our models are robust. The underlying model (model 1), testing only the association between ownership of private equity and the dependent variable, has a Wald statistic of 91.90 ($p \leq 0.01$) with respect to a χ^2 distribution, while the moderating models (models 2 and 3) have Wald statistics of 89.44 ($p \leq 0.05$) and 114.17 ($p \leq 0.01$). This provides further statistical support for our choice of instruments, the respective numbers of each category of private equity, namely BAs and VCs. The largest negative log likelihood ratio is associated with model 3 in which we look at moderation by the tribal index (−1469.98). It is only marginally higher than that of model 2 in which we look at moderation by institutional quality (−1462.14). Both are considerably greater than that for the underlying model 1 (−778.98). This suggests that the tribal index exerts a considerably greater impact as an institutional moderator than mere institutional quality. It also underscores the importance of taking into consideration the contrasting impact of institutional context.

As a further robustness check, we disaggregated private equity ownership into the constituent proportions of BAs and both domestic and foreign VCs. We re-estimated the three models reported in the preceding table using these three disaggregated proportions in place of the earlier-used private equity. Our findings are reported in Table 5 and are broadly consistent with those reported for generic private equity. However, one significant difference is apparent in terms of the inverse association between foreign VCs and founder retention as CEO at IPO ($p \leq 0.10$), in model 4. This suggests that foreign VCs are governed more by US-industry-centred norms than indigenous domestic VCs and BAs, who are more firmly rooted in the domestic context, this being reflected in their greater understanding of the importance of relational contracting and the founder's social networks. The moderation of all three disaggregated private equity ownership variables by institutional quality and the tribal index (models 5 and 6) yields similar results to those for the aggregated private equity shown in Table 4, models 2 and 3.

(*footnote continued*)
present, this would result in perfect multicollinearity, so that the matrix inversion in the estimation algorithm would be impossible. This is referred to as the dummy variable trap (Wooldridge, 2009).

[6] We have separately run all models with and without additional binary country effects as an extra robustness check. Their addition caused a substantial reduction in the maximum likelihood and the related informational content of the models, as reflected by reduced Akaike and Schwarz-Bayesian criteria (AIC and SBC).

[7] The industry classifications are Basic Materials; Consumer Goods Non-Cyclical; Consumer Goods Cyclical; Energy; Financials; Health; Industrials; Technology; Telecommunications; Utilities. The identification of firms according to their industry using broad Bloomberg definitions is in keeping with the data limitations across our sample, a characteristic prevalent in emerging economies.

[8] All marginal effects are excluded owing to brevity concerns, but are available from the authors upon request.

Table 3
Correlation analysis.

This table reports the Pearson correlations between all variables included in our study. These are the binary dependent variables, namely adopting value 1 if IPO firm retains founder as CEO at IPO and 0 otherwise. Explanatory variables are the percentage levels of pre-IPO ownership by private equity (PE) (both BA and VC) alongside the number of private equity entities – which is our instrumental variable used in later IV-Probit estimation. Institutional controls are legal origin binary dummy (adopting value 1 if civil code law and 0 if common law jurisdiction) and aggregate institutional quality. Board controls are natural logarithm of board size and board independence ratio, ratio of social elite nonexecutives to board size as well as ratio of nonexecutives affiliated to business group entities to board size. Firm-specific controls are the natural logarithm of firm revenues, ROA – defined as accounting return on equity divided by total assets, natural logarithm of firm age and debt-to-equity ratio. Ownership controls are percentage pre-IPO ownership by CEO, family and corporate block entities. IPO control is proportion of shares offered to total shares issued.

		1	2	3	4	5	6	7	8	9	10	11
1	Founder retained as CEO	1.000										
2	BA ownership	0.103	1.000									
3	VC Domestic ownership	0.057	0.074	1.000								
4	VC foreign ownership	−0.055	−0.019	−0.060	1.000							
5	# BA	0.112	0.799**	0.096	−0.056	1.000						
6	# VC Domestic	0.069	−0.001	0.683**	−0.047	0.051	1.000					
7	# VC foreign	−0.025	0.011	−0.060	0.693**	−0.002	−0.040	1.000				
8	Civil Code Law (Legal Origin)	−0.027	0.017	0.133	−0.001	0.048	0.187**	0.011	1.000			
9	Institutional Quality	−0.052	−0.149*	0.007	−0.061	−0.082	0.048	−0.038	0.213**	1.000		
10	Tribal index	−0.054	0.102	−0.040	0.014	0.044	−0.038	−0.011	−0.296**	−0.808**	1.000	
11	Log (Board Size)	−0.149*	−0.008	0.149*	0.009	−0.059	0.178*	0.079	0.156*	−0.116	0.199**	1.000
12	Board Independence Ratio	0.012	0.052	−0.024	0.002	0.061	−0.042	0.024	−0.268**	0.181*	−0.122	−0.091
13	Ratio social elites	−0.090	0.035	−0.211**	−0.058	−0.010	−0.232**	−0.093	−0.445**	−0.214**	0.259**	−0.075
14	Ratio Business Group Directors	−0.066	0.018	−0.095	−0.036	0.016	0.051	0.043	0.347**	−0.055	0.003	0.168*
15	Log (Revenues)	−0.072	0.005	−0.064	0.182**	−0.036	0.015	0.199**	0.158*	−0.062	0.104	0.280**
16	ROA	0.080	0.016	0.031	0.006	0.019	0.015	0.011	0.041	−0.004	0.050	0.006
17	Log (Firm Age)	−0.296**	0.048	0.035	0.040	−0.018	0.016	−0.004	0.141*	−0.150*	0.244**	0.348**
18	Debt to Equity Ratio	−0.072	−0.038	0.221**	−0.016	−0.037	0.167*	−0.005	−0.061	−0.078	0.104	−0.042
19	CEO ownership	0.381**	−0.008	−0.080	−0.080	0.009	−0.118	−0.065	−0.116	0.119	−0.143*	−0.379**
20	Family ownership	0.160**	−0.069	−0.074	−0.101	−0.087	0.067	−0.091	0.433**	−0.039	0.014	0.131
21	Corporate block ownership	−0.241*	−0.126	−0.128	−0.045	−0.110	−0.127	−0.021	−0.180*	0.101	−0.079	−0.146*
22	Shares to retail investors/ total shares	−0.114	−0.104	−0.091	−0.117	−0.085	−0.164*	−0.124	−0.386**	−0.095	0.083	−0.033

		12	13	14	15	16	17	18	19	20	21	22
1	Founder retained as CEO											
2	BA ownership											
3	VC Domestic ownership											
4	VC foreign ownership											
5	# BA											
6	# VC Domestic											
7	# VC foreign											
8	Civil Code Law (Legal Origin)											
9	Institutional Quality											
10	Tribal index											
11	Log (Board Size)											
12	Board Independence Ratio	1.000										
13	Ratio social elites	0.159*	1.000									
14	Ratio Business Group Directors	−0.272**	−0.087	1.000								
15	Log (Revenues)	0.080	−0.126	0.226**	1.000							
16	ROA	0.026	−0.030	0.009	0.192**	1.000						
17	Log (Firm Age)	−0.063	−0.134	0.099	0.289**	0.124	1.000					
18	Debt to Equity Ratio	0.068	−0.060	−0.044	0.006	−0.018	−0.001	1.000				
19	CEO ownership	0.091	−0.030	−0.284**	−0.209**	−0.012	−0.276**	−0.040	1.000			
20	Family ownership	−0.261**	−0.203**	0.549**	0.160*	0.112	0.207**	−0.069	−0.242**	1.000		
21	Corporate block ownership	0.277**	0.166*	−0.259**	−0.122	−0.115	−0.145*	−0.030	−0.215**	−0.388**	1.000	
22	Shares to retail investors/total shares	0.121	0.211**	−0.215**	−0.291**	−0.108	−0.175*	−0.004	−0.037	−0.274**	0.172*	1.000***

* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.005$.

Table 4
Private equity ownership determinants of founder retention as CEO at IPO[a,b].

This table reports the results from the instrumental variable (IV) probit regressions the binary (1/0) likelihood of founder retained as CEO at IPO onto our explanatory and control variables – where these are defined in Table 2.

	Likelihood of founder retained as CEO at IPO		
	Model 1	Model 2	Model 3
Intercept	2.343 [1.53]†	3.081 [1.56]*	2.783 [1.48]*
Independent variables			
H1: PE pre-IPO own	0.023 [0.02]†	0.021 [0.02]†	0.018 [0.02]†
BA own	–	–	–
Domestic VC own	–	–	–
Foreign VC own	–	–	–
H2: PE pre-IPO own × Institutional quality		−0.031 [0.02]*	
BA own × Institutional quality	–	–	–
Domestic VC own × Institutional quality	–	–	–
Foreign VC own × Institutional quality	–	–	–
H3: PE pre-IPO own × Tribal index			0.041 [0.01]***
BA own × Tribal index	–	–	–
Domestic VC own × Tribal index	–	–	–
Foreign VC own × Tribal index	–	–	–
Institutional controls			
Civil code law (legal origin)	−1.681 [0.45]***	−2.015 [0.50]***	−1.896 [0.44]***
Institutional quality	−0.238 [0.16]†	0.030 [0.22]	–
Tribal index	–	–	−0.469 [0.17]***
Board controls			
Log (board size)	1.124 [0.43]***	1.211 [0.43]***	1.271 [0.41]***
Board independence ratio	0.741 [0.83]	0.555 [0.83]	0.208 [0.73]
Ratio social elites on board	−2.388 [0.90]***	−2.358 [0.88]***	−2.169 [0.86]**
Ratio business group directors	−0.810 [0.44]*	−0.953 [0.44]*	−1.214 [0.40]***
Firm-specific controls			
Log (firm revenues)	−0.025 [0.07]	−0.045 [0.07]	−0.033 [0.07]
ROA	0.642 [0.45]†	0.578 [0.44]†	0.646 [0.41]†
Log (firm age)	−1.031 [0.20]***	−1.083 [0.20]***	−1.022 [0.20]***
Debt to equity ratio	−0.007 [0.01]***	−0.009 [0.01]***	−0.009 [0.01]***
Ownership (pre-IPO) controls			
CEO own	0.041 [0.01]***	0.040 [0.01]***	0.037 [0.01]***
Family own	0.030 [0.01]***	0.031 [0.01]***	0.031 [0.01]***
Corporate block own	−0.009 [0.01]†	−0.011 [0.01]†	−0.013 [0.01]*
IPO control			
Shares to retail investors to total shares	−1.913 [0.72]***	−2.230 [0.72]***	−2.215 [0.73]***
No. observations	191	191	191
No. retained founder	95	95	95
No. succession founder	96	96	96
Log pseudo-likelihood	−778.98	−1462.14	−1469.98
Wald exogeneity test (No. variables)	3.30 [1]†	5.17 [2]†	11.82 [2]***
Wald statistic (No. variables)	91.90 [37]***	89.44 [38]***	114.17 [38]***

[a] Industry and time (year) fixed effects included in all models.
[b] Robust standard errors-statistics are in parentheses.
† $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.005$.

The associations between all controls and founder retention as CEO at IPO are similar to those reported in Table 4 for aggregate private equity. Finally, the Wald tests for exogeneity across all models are large, suggesting our models are robust. The underlying model (model 4), testing only the association between pre-flotation ownership by private equity and the dependent variable, has a Wald statistic of 97.56 ($p \leq 0.01$) with respect to a χ^2 distribution, while the moderating models (models 5 and 6) have Wald statistics of 181.29 ($p \leq 0.01$) and 143.07 ($p \leq 0.01$). However, the log likelihood statistics are almost twice the absolute size of those reported in Table 3, where aggregate private equity ownership is considered. Again, moderation by the tribal index leads to the largest log likelihood (−3429.85), while there is a sizeable drop for moderation by institutional quality (−3263.81), and then again to the underlying-associations model 4, where log likelihood is −1800.85. This evidence again suggests the importance of considering tribalism in society over and above formal institutional quality.

Finally, we undertook four additional robustness checks on our models. The results of these are omitted for brevity but are available from the authors upon request. The first was to substitute post-IPO retained ownership for both private equity and its three disaggregated components, namely BAs, domestic and foreign VCs, and re-run all of our models. The results were consistent with our models reported here using pre-IPO ownership. Secondly, we re-ran all models including country binary effects. The corresponding

Table 5
Private equity ownership determinants of founder retention as CEO at IPO[a,b].

This table reports the results from the instrumental variable (IV) probit regressions the binary (1/0) likelihood of founder retained as CEO at IPO onto our explanatory and control variables – where these are defined in Table 2.

	Likelihood of founder retained as CEO at IPO		
	Model 4	Model 5	Model 6
Intercept	2.362 [1.57]†	3.727 [1.39]***	3.258 [1.40]**
Independent variables			
H1: PE pre-IPO own			
BA own	0.055 [0.03]*	0.027 [0.03]*	0.032 [0.02]*
Domestic VC own	0.020 [0.02]	0.039 [0.02]†	0.022 [0.02]†
Foreign VC own	−0.019 [0.02]*	−0.023 [0.02]*	−0.019 [0.01]*
H2: PE pre-IPO own × Institutional quality			
BA own × Institutional quality	–	−0.019 [0.03]†	–
Domestic VC own × Institutional quality	–	−0.033 [0.07]	–
Foreign VC own × Institutional quality	–	−0.031 [0.02]†	–
H3: PE pre-IPO own × Tribal index			
BA own × Tribal index	–	–	0.037 [0.03]*
Domestic VC own × Tribal index	–	–	0.029 [0.03]†
Foreign VC own × Tribal index	–	–	0.033 [0.02]**
Institutional controls			
Civil code law (legal origin)	−1.844 [0.48]***	−2.057 [0.54]***	−2.154 [0.44]***
Institutional quality	−0.232 [0.16]†	−0.084 [0.20]	–
Tribal index	–	–	−0.485 [0.18]***
Board controls			
Log (board size)	1.247 [0.44]***	0.846 [0.48]*	1.427 [0.39]***
Board independence ratio	0.508 [0.87]	0.870 [0.93]	0.168 [0.79]
Ratio social elites on board	−2.706 [0.92]***	−3.025 [0.90]***	−2.744 [0.85]***
Ratio business group directors	−0.838 [0.44]*	−0.922 [0.47]*	−1.249 [0.41]***
Firm-specific controls			
Log (firm revenues)	0.025 [0.08]	0.042 [0.08]	0.024 [0.08]
ROA	0.552 [0.45]†	0.375 [0.33]	0.484 [0.40]†
Log (firm age)	−1.040 [0.20]***	−1.093 [0.22]***	−1.136 [0.19]***
Debt to equity ratio	−0.006 [0.01]*	−0.006 [0.01]	−0.008 [0.01]*
Ownership (pre-IPO) controls			
CEO own	0.042 [0.01]***	0.041 [0.01]***	0.038 [0.01]***
Family own	0.030 [0.01]***	0.030 [0.01]***	0.030 [0.01]***
Corporate block own	−0.009 [0.01]†	−0.015 [0.01]*	−0.016 [0.01]*
IPO control			
Shares to retail investors to total shares	−2.124 [0.74]***	−1.977 [0.87]*	−2.778 [0.69]***
No. observations	191	191	191
No. retained founder	95	95	95
No. succession founder	96	96	96
Log pseudo-likelihood	−1800.85	−3263.81	−3429.85
Wald exogeneity test (No. variables)	6.91 [3]†	32.83 [6]***	36.40 [6]***
Wald statistic (No. variables)	97.56 [39]***	181.29 [42]***	143.07 [42]***

[a] Industry and time (year) fixed effects included in all models.
[b] Robust standard errors-statistics are in parentheses.
† $p < 0.10$.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.005$.

results yielded statistically stronger associations between the dependent variable and all independent variables. However, this was at a cost of reduced log pseudo-likelihood and a notable decrease in all information criterion metrics associated with all models. Thirdly, we studied the possibility of collinearity between numbers of private equity entities, ownership and the dependent variable. Here, we estimated the first-stage reduced-form OLS regression model with private equity ownership as the dependent variable and number of private equity owners as the independent variable on top of all of our controls. The overall F statistic revealed the rejection of the hypothesis that all coefficients are jointly equal to zero, while the F statistic associated with a single coefficient, namely that of the number of private equity owners, being equal to zero was rejected too. The residuals from this first-stage reduced-form regression model were then included in the second-stage probit model alongside private equity ownership. Here, the null hypothesis was for their coefficient to be statistically equal to zero, but our results indicate this should be rejected ($p \leq 0.10$). This rejection was statistically borderline but provides some evidence indicative of private equity ownership being endogenous. This supports our application of the two-stage approach with IV probit. Finally, as our fourth robustness check, we re-estimate all models replacing return on assets (ROA) with return on sales (ROS). The evidence closely supports our original results using ROA.

As a final exercise, using the model parameters, we input a range of values for private equity pre-flotation ownership post-IPO and

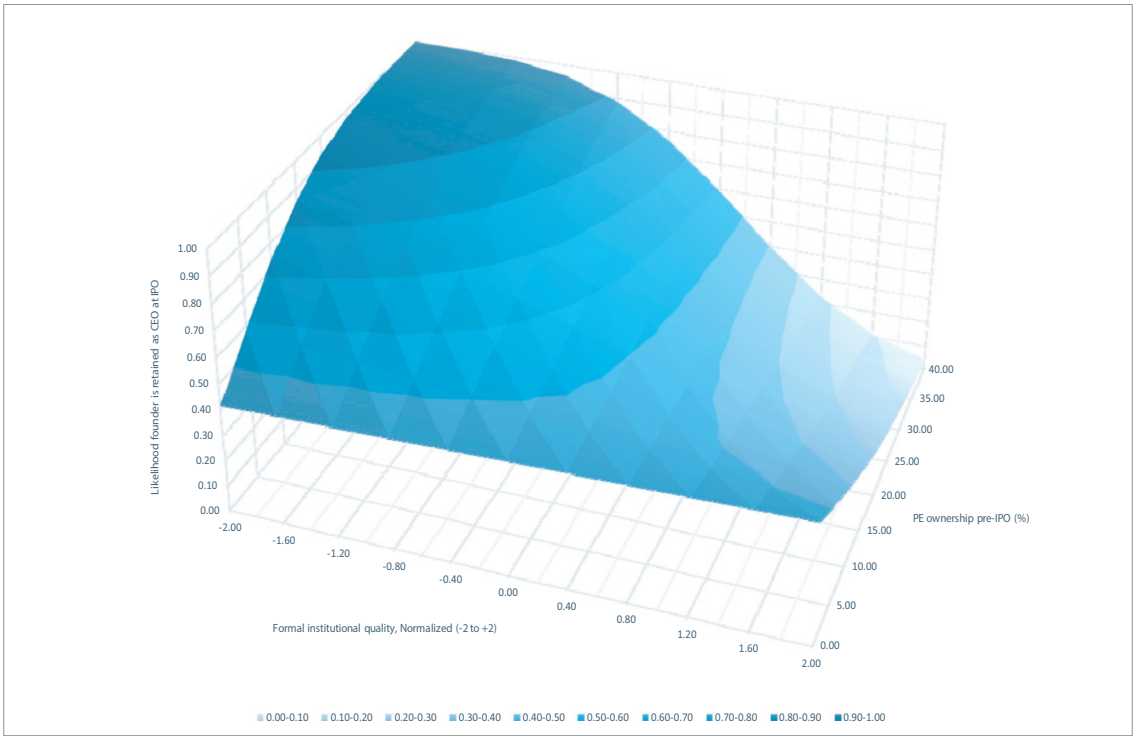

Fig. 2. Probability surface of association between founder-CEO at IPO, private equity pre-IPO ownership and formal institutional quality.

institutional quality to produce a 3-dimensional probability surface with respect to the likelihood of the founder being retained as CEO at IPO. This is outlined in Fig. 2. There is a single transition visible in relation to variation in formal institutional quality. At lower levels of institutional quality (under 0.50 or 50% quality), founder retention at IPO is associated with almost all levels of private equity participation in the firm. This transitions to the result of higher institutional quality meaning that virtually all levels of private equity retained ownership are associated with founder succession at IPO.

We repeat this exercise with respect to the variation of the likelihood of founder's retention as CEO at IPO, and varying levels of private equity pre-flotation ownership, where this is moderated by the tribal index. This is represented in Fig. 3. Two distinct transitions are visible. The first occurs at low levels of tribalism, where increasing levels of pre-listing private equity ownership are associated with a dramatic drop in the likelihood of founder retention. The second occurs at correspondingly high levels of tribalism, where increasing private equity pre-listing ownership is associated with a much higher likelihood of founder retention. This is in line with the theoretical expectations outlined in our hypotheses.

5. Discussion

In this paper, we examine the influence of private equity pre-flotation ownership on the likelihood of the founder's retention as CEO at IPO. Furthermore, we extend these insights in considering the impact of institutional context – and in particular formal institutional quality as well as the degree of tribalism within society. Drawing on a unique sample of 191 firms at IPO across the African continent from 2000 to 2016, we find that private equity pre-flotation ownership is associated with founder retention at IPO. This is in contrast to evidence from Wassermann (2003) in the context of developed economies, where the firm's growth merits its growing requirements for resources that need to be sourced from external markets. This in effect places a constraint on the usefulness of founder networks in providing resources to the early-stage entrepreneurial venture, within the lifecycle view of the firm's evolution. Our research questions this argumentation in the context of emerging economies, where founder resources have accentuated importance due to institutional deficiencies and a lack of support for external market intermediation, as well as the ubiquitous presence of powerful sociological constructs, such as ethnic lineages and extended clans. These latter constructs are captured under the term of tribalism.

Our research makes a contribution to prior studies on the governance roles of early-stage investors, by showing that their governance outcomes are significantly shaped by their portfolio firm's institutional environment. In emerging markets, the role of the founder appears to be of fundamental importance, in terms of personal charisma providing legitimacy that is inextricably tied into the dispositional or character legitimacy of the firm – where the firm itself is deemed by external constituencies to share congruous norms and traits. The founder is also extensively associated with brand and reputation, which in tribal societies is closely associated with the Arabic Wasta and African Ubuntu forms of relational contracting. Private equity investors recognize the value-added of founders,

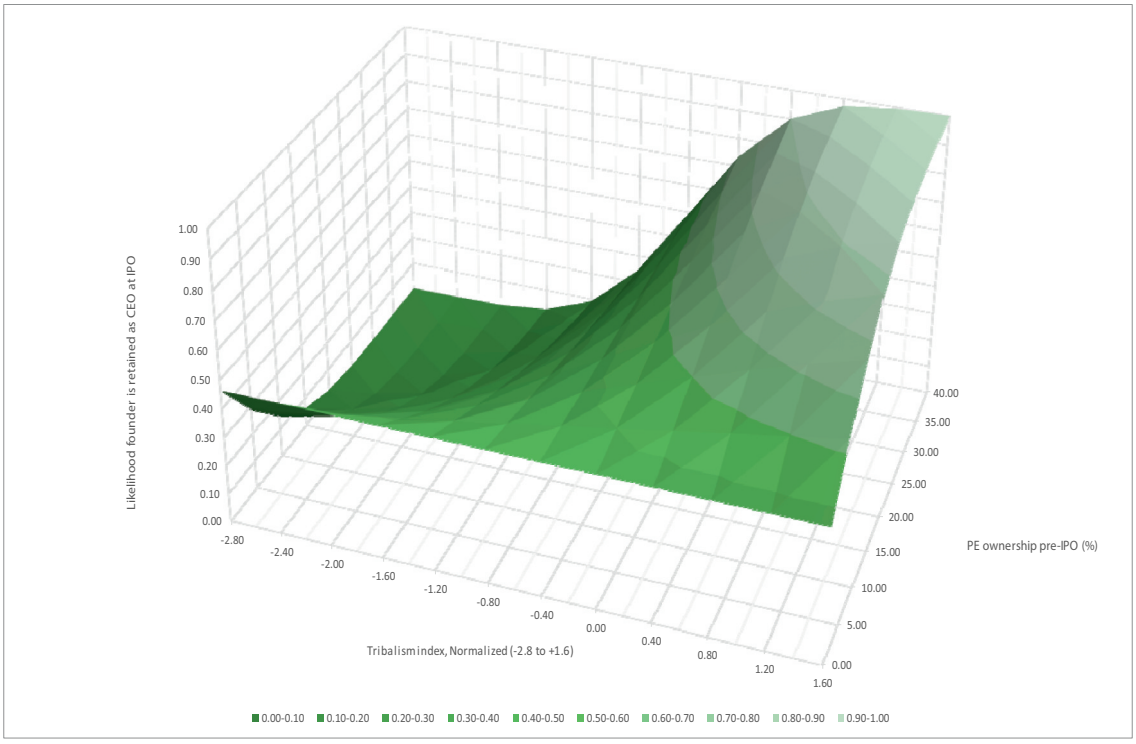

Fig. 3. Probability surface of association between founder-CEO at IPO, private equity pre-IPO ownership and tribal index.

especially in institutional contexts where markets for critical resources are relatively under-developed. This integration of institutional theory with the resource-based view and agency-grounded perspectives provides a novel contribution to founder-CEO succession research.

More generally, our study contributes to the entrepreneurship literature in terms of emphasizing the adoption of institutionalist perspectives that consider how historical contingency and a far broader range of institutions may shape the governance of a founder-led firm, rather than the over-simplified agency-theoretic approach. Agency's exclusive focus on the dichotomous relationship between principal and managerial agent – where the latter is considered to be the founder divesting ownership to minority principals – can be thought of as dyadic reductionalism. It also considers an institutional context within which all governance arrangements are inextricably embedded as no more than a thin institutional veil, supporting solely external contracting. Thus, it overlooks more contextually driven explanations of governance – such as those that consider institutional voids and the influence of legitimacy with respect to deeper tribal, ethnic or extended-clan-based formations in society. In this way, we contribute to the executive succession literature through our consideration of the influence of rival institutionalized logics in shaping the preferences of executive succession. We tie founder succession to contrasting notions of external versus internal or relational contracting. In this way, we undertake an integration of rival resource-dependence and institution-theoretic perspectives, in the specific context of founder's succession as CEO at the IPO juncture.

Our study has managerial implications. It underlines the importance of viewing relational contracting as an equal to its market-based, external counterpart, the latter dominating the literature. In particular, our research shows that founders have considerable institutional legitimacy that facilitates their ability to procure resources through relational means, in contexts where external intermediation may be ineffective due to institutional voids and the presence of tribalism. However, as emerging economies develop, their formal institutions become more effective, which may, therefore, reduce the salience of the “founder imprint”. Investors in entrepreneurial firms in emerging markets need to have a balanced view on the juxtaposition of formal and informal institutions in any specific emerging economy, when evaluating the benefits of “professionalization” of their portfolio firms.

Our study has a number of limitations. The first is that our sample is limited to the African continent and, while it explicitly addresses known relational contracting constructs within tribal societies, such as Ubuntu and Wasta, an interesting extension would be to include all IPOs over the same time period across the wider Arab and Middle Eastern region, where these relational constructs are also present. This would provide further confirmation of our findings across a much wider population. The second limitation is methodological, as IV probit two-stage methods accounting for endogeneity do not take into account the statistical effects of hierarchical levels in the data. While the reverse is true in terms of hierarchical linear models with a binary dependent variable not being fully compatible with the two-stage estimation procedure due to the incompatibility of the distributional assumptions of their errors, this is a statistical shortcoming worth noting. The third limitation is that we do not capture or control for the investment stage, which is a potential issue in our focus on early-stage investors. This last issue is complicated in emerging economies, given a paucity of

transparency leading to restrictions on availability of data, and will thus be more problematic to remedy.

6. Conclusions

Since an IPO represents a critical juncture in the firm's lifecycle, prior studies suggest that careful consideration should be given to whether an original founder should abdicate power and control to facilitate a successful transition. Private equity investors, with their enhanced access to factor markets and managerial expertise, are more likely to "professionalize" their portfolio firms at the exit stage of their investment, but mostly in the context of developed institutions. Our analysis shows that the benefits of founder-CEO succession are contingent on a complex interplay of formal and informal institutions, and future research should develop a more holistic theoretical perspective on this critical change in the corporate governance of the firm.

Appendix A

Appendix Table 1
Data sources.
Table documenting a non-exhaustive representation of data and information sources from across Africa.

Market	Information source
North Africa	Databases: Al Zawya (see website at: http://www.zawya.com/); Mubasher investment reporting (http://www.mubasher.net/en/Index.aspx); Bloomberg LLP; Business Week
Algeria	Websites: Bourse d'Algérie [SGBV] (http://www.sgbv.dz); Commission d'Organization et des Surveillance des Opérations de Bourse [COSOB] (http://www.cosob.org/) Telephone interviews and direct correspondence: M. Hamdi and Mme. Haffar (Bourse d'Alger)
Egypt	Websites: Egyptian Stock Exchange [EGX] (http://www.egx.com.eg/english/homepage.aspx); The Egyptian Financial Supervisory Authority (http://www.efsa.gov.eg/content/IFIE/about_efsa.html); Central Bank of Egypt (http://www.cbe.org.eg/English/) Telephone interviews (unstructured) to obtain data: Mohammed Omran (Chairman, EGX) Cairo-based interviews: Ayman Raafat (Market Control, EGX); Hebatallah El Serafi (Research & Market Development, EGX); Yasmin El-Khatib (PR & Communications, EGX)
Morocco	Websites: Bourse de Casablanca (http://www.casablanca-bourse.com/); Le Conseil Déontologique des Valeurs Mobilières [CDVM] (http://www.cdvm.gov.ma/) Casablanca-based interviews to obtain data: Mme. Meryem Tazi (Chef de Produits, Service Marketing, Bourse de Casablanca); Mme. Amina Zouaoui (Analyste, Service Négociation, Bourse de Casablanca)
Tunisia	Websites: Bourse de Tunis (http://www.bvmt.com.tn/); Conseil du Marché Financier [CMF] (http://www.cmf.org.tn/); Central Bank of Tunisia (http://www.bct.gov.tn/) Tunis-based interviews: M. Hatem Zribi (Direction de la Promotion du Marché, Bourse de Tunis); Mme. Maher Chtourou (Banque Centrale de Tunisie library) Tunis-based procurement of data from library of African Development Bank
Sub Saharan Africa	Databases: African financials annual reports (http://www.africanfinancials.com/); Invest Africa annual reports (http://investinginafrica.net/african-stock-markets/); Thomson Perfect Information portal; Bloomberg LLP; Business Week
East Africa	
Kenya	Websites: Nairobi securities exchange (https://www.nse.co.ke/); Capital Markets Authority Kenya (http://www.cma.or.ke/); Daily Nation business journal (http://www.nation.co.ke/) Local Nairobi-based interviews: Public relations officer, Nairobi Stock Exchange; Investment Manager, Suntra Investment Bank, Kenya
Mauritius	Websites: Stock Exchange of Mauritius [SEM] (http://www.stockexchangeofmauritius.com/)
Seychelles	Websites: Trop-X Seychelles stock exchange (http://www.trop-x.com/)
Tanzania	Websites: Dar Es Salaam stock exchange (http://www.dse.co.tz/) Telephone procurement of listing prospectus from M. Stimali, Tanzania Tea Packers Ltd
Rwanda	Websites: Rwanda stock exchange (http://rse.rw/); Capital Market Authority (http://cma.rw/)
Uganda	Websites: Uganda securities exchange [USE] (http://www.use.or.ug/); Capital Markets Authority (http://www.cmauganda.co.ug/) Procurement of annual reports: Kampala-based USE library Kampala-based interviews: Investment Management team, Crane Bank, Kampala; Head of trading, USE trading floor, Kampala; Investment Manager, African Alliance Securities, Kampala; Head of equities trading, Standard Chartered Bank, Kampala
West Africa	
Nigeria	Websites: Nigerian stock exchange [NSE] (http://www.nse.com.ng/Pages/default.aspx); Securities and Exchange Commission Nigeria (http://www.sec.gov.ng/) Lagos-based procurement of annual reports and listings prospectuses from NSE library, Lagos Lagos-based interviews: M. Obaseki (President of Operations, NSE); Mme. Hauwa M. Audu (Founder CEO, Amyn Investments and stockbroking, Lagos)
BVRM	Websites: BRVM main site (http://www.brvm.org) Cote d'Ivoire: Procurement of annual reports: Abidjan (Cote d'Ivoire)-based library for BRVM Abidjan-based interviews: BRVM exchange: Emmanuel Zamble (Market operations manager, BRVM); Khassim Diop (Chargée de développement du Marché, BRVM); Abdoulaye Sogoba (Assistant chargée de la formation, BRVM) Abidjan brokers: M. Auguste Kouakou (Gniman-Finance SA, Abidjan); M. Hermann Boua (Hudson et Cie, Abidjan) Mali: Bamako-based interviews: M. Amadou Djeri Bocoum (Directeur de l'Antenne Nationale de Bourse du Mali, Bamako); M. Alassane Sissoko (Responsable des études et de la négociation, Société de Gestion et d'Intermédiation (SGI) du Mali SA, Bamako)

(*continued on next page*)

Appendix Table 1 (*continued*)

Market	Information source
Ghana	Websites: Ghana stock exchange (http://www.gse.com.gh/) Accra-based interviews: Ghana stock exchange: Worlanyo Amoa (Senior Manager, Research and Product Devlopment, GSE) Ghana Brokers: Armah I. J. Akotey (Vice President, Databank Brokerage and Investment Banking, Accra, Ghana); Edem Akpenyo (HFC Brokerage Services, Accra, Ghana); Kafui Asare (Head of Client Relations, SAS Investment Management, Accra, Ghana); Haruna Gariba (Head of Client Relations, Merchant Bank of Ghana Ltd., Accra, Ghana)
Cameroon	Websites: Doula stock exchange (http://www.douala-stock-exchange.com/)
Cape Verde	Website: Cape Verde stock exchange [BVC] (http://www.bvc.cv/) Telephone based interviews and procurement of data: Edmilson Mendonça (Operations Manager, BVC); Ronnie Machado (Compliance Manager, BVC)
Sierra Leone	Telephone-based interviews and procurement of data: M. Gibrilla Sesay (Operations Manager, Sierra Leone stock exchange); M. Michael Collier (Deputy President, Rokel Commercial Bank, Freetown, Sierra Leone); Jacob Kanu and Daniel Thomas (CEO's of independent local licensed stockbrokers, Freetown)
Southern Africa	
Botswana	Website: Botswana stock exchange [BSE] (http://www.bse.co.bw/) Telephone interviews and data procurement: Kopane Bolokwe (Operations officer, BSE) Gabarone-based interviews with Head of Operations, BSE; President of Stock Brokers Botswana
Malawi	Websites: Malawi stock exchange [MSE] (http://www.mse.co.mw/); The Nation business journal (http://mwnation.com/)
Zambia	Websites: Lusaka stock exchange [LuSE] (http://www.luse.co.zm/); The Post business journal (Zambia) (http://www.postzambia.com/) Telephone-based procurement: Mme. Sitali Mugala (Operations Manager, Lusaka stock exchange) Lusaka-based interviews: LuSE operations personnel
Namibia	Websites: Namibia stock exchange [NSX] (http://nsx.com.na/) Windhoek-based data procurement from NSX building and library Telephone based procurement: John Mandy (CEO, NSX); Loide Nakanduungile (Research Manager, NSX); Manda Steynberg (Operations Manager, NSX)
Mozambique	Websites: Bolsa de Valores de Maputo [BVM] (http://www.bvm.co.mz/) Maputo-based interviews: Señor Bruno Tembe (Técnico Superior, BVM); Señor Felisberto Navalha (Operations Manager, Central Bank of Mozambique) Maputo-based procurement from Central Bank of Mozambique annex library, Baixa, Maputo
South Africa	Websites: Johannesburg stock exchange [JSE] (https://www.jse.co.za/)

Appendix Table 2
Institutional measures data sources.

Formal institutional quality	Definition
Worldwide Governance measures	
Voice and Accountability	Capturing perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media
Political Stability and Absence of Violence/Terrorism	capturing perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism
Government Effectiveness	Capturing perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies
Regulatory Quality	Capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development
Rule of Law	Capturing perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence
Control of Corruption	Capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests
Underlying Source:	The WGI are based on a large number of different data sources, capturing the views and experiences of survey respondents and experts in the public and private sectors, as well as various NGOs. These data sources include: (a) surveys of households and firms (e.g. Afrobarometer surveys, Gallup World Poll, and Global Competitiveness Report survey), (b) NGOs (e.g. Global Integrity, Freedom House, Reporters Without Borders), (c) commercial business information providers (e.g. Economist Intelligence Unit, Global Insight, Political Risk Services), and (d) public sector organizations (e.g. CPIA assessments of World Bank and regional development banks, the EBRD Transition Report, French Ministry of Finance Institutional Profiles Database). For a complete list of sources used in the current update of the WGI refer to http://info.worldbank.org/governance/wgi/index.aspx#faq
Tribal index	Definition
Tribalism index	Tribalism Index = Corruption Measure +0.5(Ethnic Fractionalism) + 0.5(Indigenous Population) + 2(Gender Equality) + Group Grievance
Corruption Measure	The index has a 0–1 scale and is sourced from University of South Florida. http://usfglobalinitiative.org/

(*continued on next page*)

Appendix Table 2 (*continued*)

Formal institutional quality	Definition
	Corruption Perceptions Index (CPI) published annually by Transparency International to gauge relative perceptions of corruption. Information specific to the Corruption Perceptions Index can be found on their website at: http://www.transparency.org/policy_research/surveys_indices/about
Ethnic Fractionalism	Alberto Alesina et al.'s work of ethnic and linguistic fractionalization presents what is, in conjunction with the use of indigenous populations as a percentage of the national population, one of the most interesting component of the Tribalism Index. See: Alesina et al. (2003)
Indigenous Population	This is the percentage of the population that is indigenous. Data about demographic variables such as ancestry, ethnicity, language and religion is sourced from CIA World Factbook online at https://www.cia.gov/library/publications/theworldfactbook/
Gender Equality	Gender Gap Index (GGI), published annually by the World Economic Forum http://www.weforum.org/issues/global-gender-gap
Group Grievance	A tribal society will also experience high levels of group grievance, as defined by the Fund for Peace and used by the organization as one of the ten measures for the compilation of the Failed States Index. The variable captures the history of aggrieved communal groups, public scapegoating of those groups with or without nationalistic political rhetoric, any patterns of atrocity committed with impunity or with support or participation of government groups, and institutionalized political exclusion

Table documenting sources and construction behind formal and informal institutional controls used.

Appendix B. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jbusvent.2019.01.007.

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