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The Influence of Institutionally Embedded Ownership on Anglo-American Corporate Governance Migration into Emerging Economy IPO Firms

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AMERICAN CORPORATE GOVERNANCE MIGRATION INTO
EMERGING ECONOMY IPO FIRMS**

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Abstract

We argue that the corporate governance of emerging economy IPO firms is influenced by firm-specific institutionally embedded block ownership groups. Applying an extended institutional logic perspective and using a mixed-effects ordered probit model, our findings from 190 IPO-firms from 22 African countries 2000–2016, support the notion that five major block owner categories (corporate, private equity, non-executive, business group, state) exerts very different influence on African firms' degree of adoption of Anglo-American corporate governance measures. We find that the influence from the various block owner groups is significantly moderated by institutional quality and tribalism, but to different degrees and directions across block owner groups. Our contextually embedded firm-specific results support the criticism of a one-hat-fits-all global and uniform corporate governance model.

Keywords: IPO; Corporate Governance Practice; Institutional Theory; Africa; Emerging Economies

JEL: G23; G38; M12; M14; M16

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INTRODUCTION

Prior research in emerging markets has attributed corporate governance deficiencies of firms to the inadequacies in the *nexus of contracts* in their corporate environment (Jensen & Meckling, 1976; Kim & Mahoney, 2010). With this view the frail aggregate national institutional framework explains the corporate governance of emerging market firms. To address this deficiency in the contracting environment, Coffee (2001) argues that elements of the market-orientated Anglo-American system of corporate governance should be introduced. Another strand of literature emphasizes the *rival institutional view* on national corporate governance regimes (see Aguilera & Jackson, 2003), classifying different stakeholder-orientated systems as being either “bank” or “state”-led capitalist models, where firms’ corporate governance need to be adopted accordingly. As our point of departure, we argue that both the contracting view and the rival institutional view of corporate governance fail to capture the visible *firm-level* heterogeneity of emerging market firms and their indigenous communities.

We contribute to the nascent comparative corporate governance literature (e.g. Aguilera & Jackson, 2003, 2010) by undertaking a unique study of early stage emerging African firms in their initial public offering (IPO). Firstly, Africa provides a unique context within which to study the contrasting firm-level adoption of Anglo-American governance, given its considerable variation in formal institutional quality that transcends otherwise straightforward and superficial distinctions between formal institutions based on either civil code or common law systems. Furthermore, the continent exhibits the highest degree of ethnic fractionalization and tribalism worldwide, which is reflective of the powerful clan and ethnic lineage-based sociological forces underpinning indigenous societies. Thus, Africa provides an ideal context with which to study the impact of national and sub-national institutional traits on firm’s decisions to adopt foreign “best practice” governance standards. Secondly, we relax the rigid and deterministic assumptions inherent in the Aguilera & Jackson (2003) actor-centered model of governance where the emphasis is on firms’

influenced towards adoption of a-priori governance through a need for isomorphic conformity. Thus, we integrate into our model Hoskisson, Hitt, Johnson & Grossman (2002)'s perspective of institutionalized "conflicting voices" between rival shareholders that transcend traditional firm boundaries and influence executive decision-making and strategy. We also build on Miller, Le Breton-Miller, Amore, Minichilli, & Corbetta (2017) and Desender, Aguilera, Lopexpuertas-Lamyand & Crespi. (2014), who address block shareholders, such as families, in their role of introducing rival corporate governance logics within firms. Bylund and McCaffrey (2017: 462) highlight how *"the relationship between institutions and entrepreneurship is not unidirectional; it consist of more than the choice between productive and unproductive, and destructive activity within a given institutional framework"*. With the same kind of logic, we argue that different shareholder groups are notable in being drawn from and shaped by different realms within society.

Our focus on firms undergoing IPOs facilitates the study of the institutionalized influences on firms rooted in an underlying societal realm, when adopting foreign corporate governance practice tenets in their IPO prospectuses. In effect, the IPO event represents a transition, from having one's basis in an indigenous institutional context, towards the Anglo-American financial market logic associated with an organized securities market. A majority of African countries have established or substantially reformed national stock exchanges during the last thirty years, which has been largely the result of the influence of institutionalized "market orientated" norms at a transnational level infused through structural adjustment programs, conditionality of aid receipts and lending, or macroeconomic trading arrangements. This necessitates indigenous firms to embrace market institutions and publish an IPO prospectus, where this reflects the firm's deep consideration of what it should disclose when "marketing" itself to prospective investors. Firms must balance rival institutionalized pressures emanating from indigenous context against their need to reduce their liability of foreignness and attract foreign investment through greater adherence to globally recognized Anglo-American corporate governance norms (Bell, Filatotchev and Rasheed, 2012).

Our approach follows Pache & Santos (2013) and Battilana & Dorado (2010) and assumes firms are hybrid organizational forms that incorporate elements from a variety of prevailing institutional logics. We focus on how block owners adhering to particular logics may impact the degree of adoption by the focal firm of the globally dominant Anglo-American model of governance. Rather than assuming unified stakeholders as put forward by Aguilera & Jackson's (2003, 2010) actor-centered model, we adopt a perspective of heterogeneous stakeholders. Specifically, we highlight the role of owners in line with Hoskisson, Hitt, Johnson & Grossman (2002)'s perspective of institutionalized "conflicting voices". Our approach also builds on the argument suggested by Desender, Aguilera, Lopexpuertas-Lamyand & Crespi (2014); that block shareholders can introduce rival corporate governance logics within a firm.

Our study takes into account the multifaceted nature of societies while providing a useful bridge between institutional logics theorization and international business research. It integrates the wider impact of societal level logics and their influence on subordinate organizational structures and governance and adds to the cross-country comparative literature that characterizes societies as broad, national-level belief systems (e.g. Vasudeva, Alexander & Jones, 2015) and that theorize societies as being comprised of distinct institutional realms or orders (e.g. Friedland & Alford, 1991). The study also adds to the literature (in line with Zhao & Wry, 2014) by showing how the influence arising from societal level logics, Anglo-American corporate governance in our case, is selectively moderated by their contestation or acquiescence with the logics of governing block owners.

In our study, we apply a mixed effects hierarchical linear ordered probit model on a unique sample of 190 firms having undertaken IPOs in 22 markets across the African continent between January 2000 and August 2016. We develop a unique Anglo-American governance index based on the tenets of governance from the New York stock exchange, a central point of origin for the market-orientated governance system. This is then subdivided into four categories or levels of adoption which forms the underlying basis for our ordered probit model. Our empirical evidence

reveals ownership by three categories of block owners, namely nonexecutives, corporate block entities and private equity are associated with increased adoption of Anglo-American governance, while a further two, namely business group and state, are associated with lesser adoption of Anglo-American governance. These associations are moderated by formal institutional quality, where nonexecutives and state are positively moderated, and corporate, private equity and business groups' influence are negatively moderated. They are also further moderated by tribalism with nonexecutives and state being negatively moderated, and corporate, private equity and business groups influence being positively moderated. While formal institutional quality and tribalism are aggregate constructs, they capture the dynamic interaction, interlinkages and complementarities between indigenous logics within and between societal levels in coalescing to either provide high quality formal institutional quality or support institutionalized patriarchy and tribalism as an informal cultural construct.

Our study addresses the call for further theoretical development in the diffusion of corporate governance practices, as expressed by Haxhi & van Ees (2010) for example. The study also addresses the call for further empirical examination of the mobility of corporate governance in a multi-stakeholder perspective as expressed by Cumming, Filatotchev, Knill, Reeb & Senbet (forthcoming), while also addressing Thornton & Ocasio's (2008) call for further research based on the institutional logics perspective. Specifically, we seek to address the dynamic inter-linkages between different institutional levels within society, and organizational structures as expressed by our choice of corporate governance measures.

The rest of the paper is organized as follows. In the next section, we discuss the theory and formulate our hypotheses. The section thereafter outlines the Anglo-American Governance Adoption Index followed by a section that covers the sample construction, methodology and definitions of all variables used in the analysis. We then present our empirical results, while we summarize our findings and provide our policy in the last section.

THEORY AND HYPOTHESES

Our institution-theoretic approach builds on two premises: the first is based on the organizational structure of the firm, the second on the wider societal institutional configuration and how this configuration impacts the diffusion of corporate governance “best practice” based on the Anglo-American model.

For the first premise we fundamentally depart from the agency-theoretic view of the firm as a “nexus of contracts” (see Fama, 1980) and resource dependence, the notion of the firm being a “nexus of claims on resources” (e.g. Pfeffer & Salancik, 1978). Here, institutions are considered a thin veil used to define and enforce contracting (Aguilera & Jackson, 2008). Instead, we propose the idea of the firm as a “nexus of institutions” that support, or oppose, the Anglo-American corporate bureaucratic structure. The institutional nexus includes the concept of the separation of ownership from control through diversification, a joint-stock company, double-entry bookkeeping, limited-liability contracts and residual-risk claims, as well as distinct executive and nonexecutive director roles, as a non-exhaustive list. All have uniquely and endogenously evolved within an Anglo-American institutional framework and as such have been subject to the rival co-influence of prevailing institutional logics within that framework. Furthermore, they all support the Anglo-American corporate bureaucratic structure – which facilitates internal control alongside external fiduciary responsibilities. Within this structure the roles, and the routines associated with them, alongside norms of appropriate behavior and ethics, are shaped entirely by both informal and formal institutions. This in itself is a departure from traditional institutionalist approaches (see Williamson, 2000, 2002 for example), which rely on the concept of bounded rationality. Equally, the socialized nature of rules, routines and normative appropriateness underscores the historically contingent nature of institutional constructs and their reliance on prevailing societal logics acting on the firm.

We draw on the institutional logics perspective (Ocasio, 1999; Thornton & Ocasio, 2008) and argue that a firm’s selection of corporate governance measures is subject to the contestation

between rival logics influencing the firm – with these themselves subject to dynamic intertemporal conflicts and complementarities. We posit that corporate governance transformation in emerging market firms is the outcome of a contested transition in the redefining of socialized, historically contingent rules and roles within any given bureaucratic organizational structure. Thus, organizations may be susceptible to the influences of several distinct institutionalized logics – with the resulting organizational structure being contingent on the contest for dominance between those logics. The contest would typically take place through the logics’ infusion and shaping of managerial culture, which then redefines power-dependencies and embedded agency relationships within the organization. This process in turn defines the strategic orientation of the leadership of the firm.

Our second premise, associated with our perspective, is that the societal fabric is part of an extended multilevel institutional system. Furthermore, this implies an erosion of traditional institutional dichotomous distinctions between the formal and informal institutional spheres (e.g. North, 1989, 1994), or Scott (1995)’s three regulatory, normative and cognitive “pillars of institutionalized legitimacy”.¹² In their place, we propose a continuum of levels – ranging from the international through to the regional, national and finally sub-national level. Institutionalized orders or realms are present within each of the levels and extend their reach, through their respective logics, across levels. Logics themselves are formed from social groups with distinct collective identities, the latter defined as “...the cognitive, normative, and emotional connection experienced by members of a social group because of their perceived common status with other members of the social group” (Thornton & Ocasio, 2008: 111).

¹ Regulatory pressure accounts for state-level architecture, while normative pressure reflects industry-level professional structures. Cognitive pressure is defined in terms of deeper sociological acceptability within society – such as cultural, religious and broad societal norms. Regulatory and normative, on the one hand, are closely related to North (1993) and Williamson (2002)’s definition of “formal” institutions, while cognitive equates to their “informal” counterparts.

² Institutions themselves are redefined – following Thornton & Ocasio (1999) – in having three complementary and inseparable dimensions, these being structural, normative and symbolic or cognitive. These allow for more powerful influences that might arise from a given institution – such as religion’s ability not just to be confined within the cognitive domain in influencing culture, but also to influence the appropriateness of behavior and of organizational structure and operations, and moral legitimacy for the family, as well as the formal structuring of activity.

While the institutional logics perspective considers individuals as carriers of institutions, and potential members of multiple social groups, they can coalesce either individually or as organizations into social groups. Such groups can then attain a collective identity that binds members together with a common purpose. As collective identities become institutionalized, they develop their own institutional logics that exert influence over populations of individuals and organizations. This is particularly true of the emergence and then dominance of a distinct market-orientated logic – also known as the Anglo-American corporate governance model. The global spread of the market logic is apparent in its dominance across many other seemingly unrelated realms (in line with the general “logics” arguments of Thornton & Ocasio, 2008). Further, the market logic underscores the intertemporal nature of societal orders – that are subject to change over time due to their combination and recombination of the social preferences of their members. We argue that the market-orientated logic not only embraces a market or finance-orientated emphasis but also supports the Western corporate bureaucratic organizational form and thus Anglo-American corporate governance measures.

Emerging economies worldwide, including those across Africa, owe their formal institutional architecture (such as government, political and legal apparatus) to that inherited from former colonial metropolises (La Porta, Lopez de Silanes, Shleifer & Vishny, 2000). While this architecture was transplanted into individual, national emerging-market settings, simultaneously, more far-reaching macroeconomic, trade and international financial and political arrangements were created.³ In this way, former European colonial architecture gave rise to nascent state and legal institutionalized orders within developing countries at the time of their independence. These logics were supportive of the firm as a Western bureaucratic structure (including Anglo-American

³ These range from economic and monetary unions amongst Francophone African countries with exchange rates pegged to the French Euro, to preferential trade arrangements with former colonial metropolises, and ultimately to truly international financial institutions such as the World Bank and International Monetary Fund (IMF). All are based on essentially European institutional frameworks and all promote the maintenance of these institutional logics at an international and national level.

corporate governance measures), although conflicting with indigenous logics based on patriarchy, religion and notions of extended family that differ greatly from those prevalent in Western Europe.⁴

While such incongruities between transplanted European institutional orders and their rival indigenous counterparts may exist, the former's longevity over the latter is driven by pressure from institutionalized macroeconomic and trading arrangements at a regional and international level. The legacy of the pre-colonial institutional configuration, as well as national-level aid-receipt policies, structural adjustment programs and reforms, the foreign direct investment and portfolio legacy of the pre-colonial institutional configuration, and national-level investment policies, provides conduits through which the market-orientated Anglo-American governance model is spread.

Our approach builds on Hoskisson *et al* (2002)'s notion of "conflicting voices" and the shaping of institutionalized preferences of block owners within a firm's ownership structure. In particular, the socially constructed preferences amongst indigenous block owners are shaped by their inherent logics that come from the societal realm in which they are embedded (for example state ownership). Following Hoskisson *et al.*, we argue that these block owners exert influence over the firm and its strategy in conjunction with their institutionalized influence, which is related to their formal and informal norms that define roles and routines within the corporate bureaucratic form (Ocasio, 1999). With this view in mind, we introduce below a set of hypotheses motivated by the institutional logics perspective for each of five block owner categories.

Hypotheses

Nonexecutive directors have a central role in the agency-theoretic conceptualization of the firm's corporate bureaucratic structure (Ocasio, 1999). Based on the institutional logics perspective, we view nonexecutive roles, as well as the rules and routines associated with them, as socially defined and therefore underscored by institutions (Ocasio, 1999). In market-orientated capitalistic systems

⁴ These incongruities are apparent from the Islamic prohibition of interest and emphasis on risk-sharing partnerships as an organizational form (Kuran, 2004), and the traditional African Ubuntu philosophy's emphasis of communitarian principles and collectives as organizational forms (West, 2014).

nonexecutives have the board role of monitoring and evaluating executive director. As such, we anticipate that higher retained ownership of the focal firm by nonexecutive directors will be associated with increased adoption of Anglo-American governance provisions. We posit that this effect will be driven by independent directors' motivation to support their own legitimacy, by generally adhering to Anglo-American corporate governance norms.

The "nexus of contracts" view of the firm, originating in a Western European institutional framework (Weber, 1978), suggests the corporate bureaucratic organizational form to be very sensitive to the institutional context in which it is embedded (Ocasio, 1999). In the context of high national formal institutional quality and consequentially low tribalism, the national and sub-national governance frameworks are more supportive of arm's length, third-party contracting (Khanna & Rivkin, 2001). In such environments, there are greater institutional complementarities between the aggregate indigenous corporate governance framework and the more internationally orientated Anglo-American corporate governance framework. Hence, there is greater legitimacy and contextual support for the nonexecutive director to seek further legitimacy (e.g. Suchman, 1995) by encouraging the firm to become increasingly compliant with the Anglo-American corporate governance model.

Contrastingly, in jurisdictions of low aggregate formal institutional quality with high levels of tribal patriarchy, the logics associated with indigenous extended-familial and patriarchal orders are dominant over rival, impartial institutions transplanted from Europe. These logics act to delegitimize the effectiveness of the nonexecutive directors' monitoring role, while also reducing their recourse to sanctions against dominant insider appropriation through a lack of support from the institutional architecture for third-party, impartial contracting. In this way, the informal and formal roles and routines associated with nonexecutive directors, alongside norms governing the appropriateness of their actions, are altered to fit in with the predominant patriarchal indigenous logics. Thus, in a corporate environment dominated by a nexus of indigenous institutions, nonexecutive directors will lack the motivation to either perform a monitoring role or achieve

legitimacy for an otherwise alien Anglo-American corporate governance system. As a consequence of the arguments above we formulate the following hypotheses:

Hypotheses 1a and 1b. *The positive association between nonexecutive director retained ownership and the likelihood of a firm adopting Anglo-American governance measures is (a) positively moderated by formal institutional quality and (b) inversely moderated by tribal informal institutions.*

We next consider three more categories of block owners sharing some common features. We argue that both *corporate block investors* and private equity entities are highly influenced by the market-orientated external financing model of corporate governance. Corporate block investors are especially prevalent in emerging economies, owing to a dearth of institutional investors such as pension funds and actively managed investment schemes. We claim that the lack of institutional investors and limited liquidity of shares ensures corporate block investors to take longer-maturity positions in their investee firms. This necessitates their adoption of block shareholding positions in order to maximize voting power and a greater say against dominant insiders. The larger cash flow rights associated with these ownership positions underscore their motivation to monitor more effectively (Bruton, Filatotchev, Chahine, and Wright, 2010). As such, corporate block owners are more prone to encourage the firm to adopt Anglo-American corporate governance provisions that will enhance their monitoring ability and restrict insiders' potential for appropriation.

Private equity entity refers to both informal angel investors and formal venture capitalists. In line with Bruton, Fried, & Manigart (2005), we make the institutionalist arguments regarding the dominance of US venture capital (VC) industry norms and values. A central consideration in the VC industry is the training and socialization of managers based on professional communities dominated by US industry values (Bruton *et al.*, 2005). Thus, the global VC industry is consistently shaped by market-orientated logics. Further reinforcement of these socialized norms of Anglo-American corporate governance comes from managers as they seek legitimacy from external investors (Bruton *et al.*, 2010). This constitutes a self-reinforcing system of institutionalized norms

at an international level that infuses into private equity entities. In order for VC providers to attain legitimacy (e.g. Suchman, 1995), they too encourage investee firms to adopt Anglo-American governance tenets.

Finally, we argue *business groups* to be firmly rooted within the indigenous societal orders and shaped by their logics. This is particularly evident from their “hybrid” organizational form that transcends the boundaries of the nominally independent firms and constitutes the group network (e.g. Khanna & Rivkin, 2001). While this network is formed through hard control in the form of extensive pyramiding and cross-shareholding, it is supplemented by extensive soft control across constituent firms (Khanna & Yafeh, 2007). The “hybrid” governance form is based on extended socialization that mirrors deeper sociological constructs – clans and extended families – within the society. Thus, the organizational framework of the firm and its corporate bureaucracy is assimilated within the indigenous logics. These logics reflect the powerful sociological construct of family and clans and are centered on relational capital that utilizes the extended networks of firms as an effective internal capital market. Sub-national governance frameworks based on these tenets promote internal finance and relational finance between business groups, which are largely incongruous with and opposed to the alien Anglo-American notions of governance that emphasize external financing. These arguments make us posit a negative association between a firm’s ownership ties to business groups and its adoption of Anglo-American governance measures.

Taken together we claim the corporate block owner entities, business groups and private equity investors all to be mutually subject to a very different emphasis from indigenous institutional logics than are nonexecutive directors. The very definition of the role and functioning of nonexecutive directors is highly contingent on the combination of the indigenous assimilation of the Western corporate bureaucratic form *and* the dominance of market-orientated logics – the two acting as complements. In the case of corporate entities, business groups and private equity investors, all three are inevitably embedded within the sociological structures that make up the indigenous society. In this way, they are largely compliant with deeper, sociologically based logics

drawn from families or clans that form the basis of tribalism. Thus, while at a higher societal level the inter-institutional system may coalesce to form a framework that effectively protects third-party contracting and external corporate governance, these are nevertheless incongruous with deeper subsumed tribal or clan and familial logics. We draw on the institutional logics notion that organizational fields are contested by several logics and, while the dominant logic subsumes the others, the latter do not simply disappear altogether (Thornton & Ocasio, 2008). As such, corporate entities, business groups and private equity investors must fit in with the prevailing deeper logics within the societal matrix. These logics, in turn, produce a conflict with the market-orientated logic, promoted by high institutional quality and low tribalism. Extending these theoretical arguments, we posit that these three categories of block owners will resist further incongruous institutional encroachments that will reduce their level of control over the focal IPO firm. Hence, we can expect the association between these categories and the likelihood of a firm adopting Anglo-American corporate governance measures to be inversely moderated by institutional quality.

We argue that corporate block owners and private equity investor entities are striving to engage in market-orientated logics in order to signal the value of the focal firm to external capital market investors, as well as to seek to attract human and social capital resources into the firm. Encouraging the focal IPO firm to adopt Anglo-American corporate governance better serves these purposes (Pfeffer & Salancik, 1978). This is pertinent given the institutionalized emphasis on private equity entities exiting their investments (Bruton *et al.*, 2005; Wasserman, 2003). It is also apparent in terms of a form of institutional decoupling, whereby the logics governing corporate and private equity entities are decoupled from the more peripheral adoption of market-orientated Anglo-American governance measures in the focal IPO firm. Thus, the IPO firm attains moral and pragmatic legitimacy in the eyes of external investors and hence acquires resources, enabling the private equity to exit. Khanna & Rivkin (2001) and Khanna & Yafeh (2007) argue that a major benefit arising from an individual firm's membership of business groups is that it can effectively

leverage the brand and reputation of the wider group in order to preferentially obtain external resources. The theoretically based arguments above make us suggest the following hypotheses:

Hypotheses 2a and 2b. *The positive association between corporate block owners--retained ownership and the likelihood of a firm adopting Anglo-American corporate governance measures is (a) inversely moderated by institutional quality and (b) positively moderated by tribal informal institutions.*

Hypotheses 3a and 3b. *The positive association between private-equity-entity-retained ownership and the likelihood of a firm adopting Anglo-American corporate governance measures is (a) inversely moderated by institutional quality and (b) positively moderated by tribal informal institutions.*

Hypotheses 4a and 4b. *The inverse association between business-group-retained ownership and the likelihood of a firm adopting Anglo-American corporate governance measures is (a) inversely moderated by institutional quality and (b) positively moderated by tribal informal institutions.*

Finally, we examine the role of our fifth block owner - *state-retained ownership* - in influencing the focal firm's adoption of the Anglo-American governance model. Friedland & Alford (1991) considered state bureaucracy one of the central institutional orders within society effusing its own distinct logic. Here, we focus on the intertemporal nature of socialized interactions and community forming an order such as the state apparatus. While state bureaucracy largely owes its presence to transplantation during the colonial era, in many emerging economies its internally consistent institutional logic is subject to significant contestation from prevailing, underlying indigenous logics. State enterprises and entities are themselves largely seen as dominated by these indigenous logics, typically based on patronage to the underlying feudal political economy. We posit that the presence of such strong indigenous logics would be resistant to incongruent market-orientated logics and prevent the focal firm from adopting Anglo-American corporate governance practices.

Given the ability of an institutional order to be permeated and subject to change by rival institutional logics within a society, we maintain that societies with high aggregate formal institutional quality are characterized by an interplay between indigenous and transplanted European orders that is supportive of third-party contracting and market-orientated governance. In

this way, the state is relatively uninfluenced by potentially incongruous indigenous logics and adopts an impartial character. As demonstrated by Perotti (1995), this high-institutional-quality context suggests that state retained ownership is associated with the signaling of value to investors. This signaling is mirrored in state ownership seeking to encourage the firm to attain legitimacy from investors through the further adoption of Anglo-American corporate governance provisions, which would themselves be compatible with the national framework.

However, in environments of low formal institutional quality and those dominated by tribal institutional frameworks, the opposite is expected. The state is largely subsumed under dominant prevailing logics centered on extended family or clans, where these form the basis of tribalism. Therefore, the state is more resistant to what is considered a loss of control through the adoption of incongruous governance measures – namely the adoption of Anglo-American corporate governance. Given these theoretically derived arguments, we propose the following hypotheses:

***Hypotheses 5a and 5b.** The inverse association between state-retained ownership and the likelihood of a firm adopting Anglo-American corporate governance measures is (a) positively moderated by institutional quality and (b) inversely moderated by tribal informal institutions.*

ANGLO-AMERICAN CORPORATE GOVERNANCE ADOPTION INDEX

The construction of our unique Anglo-American corporate governance adoption index follows the New York Stock Exchange manual (NYSE, 2016) in terms of governance provisions at the firm level. We argue that the US market is an institutional origin for the Anglo-American governance system, while it has dominated transnational logics through the US accounting for an overwhelming proportion of global equity portfolio investment, as well as being a center for international financial institutions such as World Bank and IMF who are largely responsible for structural adjustment programs and facilitating conditional aid distribution. We have adapted this index to an emerging economy context – in which there are typically significant institutional voids. These voids account

for deficiencies in contracting and intermediation within managerial labor, product and capital markets. We also consider more sophisticated Anglo-American corporate governance provisions in terms of anti-takeover mechanisms such as golden parachutes, greenmail and more detailed provisions for proxy voting.

Our index takes into account a number of firm-level governance provisions – as detailed in Table 1 – that are broadly grouped into provisions based on top management incentives regarding pay, board monitoring and board effectiveness, and on the Berle & Means (1932) concept of separation of ownership from control via diversification. Firm adherence to each provision is represented by a binary (1/0) dummy variable. A final overall or aggregate index is calculated based on an equally weighted arithmetic average of all of a firm's scores for its adopted corporate governance provisions. We have developed two versions of this: the first includes the provision for a minimum of one independent nonexecutive director, while the second includes the provision for a minimum of 50% of all directors to be independent nonexecutive directors. The aggregate index data type is continuous in a span from 0 to 1.

The second step in the construction of our Anglo-American corporate governance adoption index is the division of individual firm-levels of adoption into four distinct categories or bins. The four categories are defined by ranges of adoption level, namely 0 to 0.25, 0.26 to 0.50, 0.51 to 0.75, and 0.76 to 1. Thus, at this stage our indices are formed into categorical data.

Table 1

METHODOLOGY AND DATA

Sample construction

The dataset was constructed in three stages. First, a list of IPOs⁵ on African markets between January 2000 and August 2016 was drawn up. In North Africa, these markets include Algeria, Egypt, Morocco and Tunisia, and in Sub-Saharan Africa they include 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 sources here were the national stock exchanges and their associated websites, and these were cross-checked with lists sourced from major brokerage houses to ensure accuracy in the case of Nigeria and Zambia. This resulted in an “estimated” population of 380 stock listings.

The second stage ensured that our population actually covered IPOs and not private placements. The IPO prospectuses were obtained. The IPOs included in the sample were the offerings that produced a genuine diversification of ownership amongst a base of minority shareholders (as opposed to private placements involving the preferential allocation of stock to institutional or corporate block holders under pre-arranged quantities and prices). Equally, care was taken to avoid misclassifications of registrations, introductions and seasoned (secondary) offerings, as these are often also officially referred to as IPOs. Furthermore, IPOs were 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. Thanks to these efforts to solely focus on IPOs, the population was reduced to 276 genuine IPO firms.

⁵ The IPO (initial public offering) event was chosen as representing the occasion where we can expect the most reliable description of the governance of the focal firm.

In the third stage, we focused on domestic 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 experienced missing values in terms of published age – or year of IPO firm establishment – in the prospectuses of 11 firms, resulting in a final sample of 190 IPOs. The 11 missing observations were evenly distributed throughout the sample.

Data on IPOs were collected from the financial market regulator websites for Algeria and Morocco, while a combination of the Thomson Corporation Perfect Information and Al Zawya databases was used for the 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, the prospectuses were obtained from the Ghanaian, Tanzanian, Cape Verdean, and Sierra Leone national stock exchanges, and from 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 Sub-Saharan Africa, the African Financials website (2014) provided information from annual reports relevant to listings. These sources are listed in Appendix Table 1.

Dependent variable

Our dependent variable is the Anglo-American categorical index as outlined in the preceding section.

Explanatory variables

Our empirical tests of our five hypotheses are based on five explanatory variables tested with and without moderating variables. The five explanatory variables are the percentages of retained ownership, post-IPO, of our five distinct types of block owners, or principal: nonexecutive directors,

corporate block entities, business groups, private equity entities (including both business angels and venture capitalists), and the state. The levels of ownership are identified from the IPO listing prospectuses. An additional step preceding the measurement of cash flow ownership is the identification of business group constituent firms and business angel investors. Here we follow the techniques elaborated in Hearn, Oxelheim & Randoy (forthcoming) and Bruton *et al.* (2010). We also supplemented our identification through the extensive use of internet-based access to local indigenous media to provide further verification.

Moderating variables

We use two institutional metrics to moderate the association between different categories of block ownership and firm-level adoption of Anglo-American corporate governance. The first accounts for formal institutional quality, and is an aggregate variable constructed from an equally weighted average of six World Bank governance metrics.⁶ These six (Political Stability and Absence of Violence/Terrorism, Voice and Accountability, Government Effectiveness, Regulatory Quality Rule of Law, and Control of Corruption) were rebased to a 0–10 scale prior to aggregation. The second accounts for informal societal institutions taking the form of tribalism. We measure degrees of tribalism by Tribalism Index = Corruption Measure + 0.5(Ethnic Fractionalism) + 0.5(Indigenous Population) + 2(Gender Equality) + Group Grievance. The index has a 0 – 1 scale.⁷ It should be noted that both indices were centered and normalized in order to mitigate concerns over collinearity. Furthermore, in order to avoid potential collinearity, we sequentially included each of the two indices, thereby avoiding their joint inclusion in any given model.

Control variables

We control for four different dimensions using environmental, board, firm and IPO control variables. Table 2 describes and provides sources for the control variables included in our model.

⁶ A detailed description is available from the authors upon request.

⁷ <http://usfglobalinitiative.org/>

Table 2

Empirical model

Our dependent variable is formed from the underlying indices being formed into categorical data.

Our Anglo-American indices – or “AA_t” for short – are defined as

$$AA_t = \begin{cases} 1, & \text{if governance value falls between 0 and 0.25} \\ 2, & \text{if governance value falls between 0.26 and 0.50} \\ 3, & \text{if governance value falls between 0.51 and 0.75} \\ 4, & \text{if governance value falls between 0.76 and 1} \end{cases} \quad (1)$$

Our multilevel mixed-effects ordered probit model is constructed in two stages. The first, which assumes the likelihood of any given firm’s adoption of Anglo-American corporate governance, is determined by the following function:

$$AA_{i,t}^* = x_{ij,t-1}\beta' + z_{ij,t-1}u'_j + \varepsilon_{i,j,t}$$

$$\begin{aligned} \beta' x_{ij,t} &= \beta_1 \text{Explanatory and moderating variables}_{i,t} \\ &+ \beta_2 \text{Board controls}_{i,t-1} \\ &+ \beta_3 \text{Firm specific controls}_{i,t-1} \\ &+ \beta_4 \text{Ownership controls}_{i,t-1} \\ &+ \beta_5 \text{IPO controls}_{i,t-1} \\ &+ \delta_1 \text{Industry F.E.} + \delta_2 \text{Time F.E.} \end{aligned} \quad (2)$$

where AA_{i,t}* is a latent variable representing the preferred degree of compliance with Anglo-American governance provisions by a given firm at IPO. **x**_{ij, t-1} is a set of governance controls – as outlined in the preceding section – with a one-period lag. **β**' is the parameter vector, while **ε**_{i,t} is the residual term, which is assumed to be normally distributed. Similarly, **u**_j' are cluster-level random effects with their own vector of parameter coefficients given by **z**_{ij, t-1}. Industry and time (year) binary effects are applied cross all models. The industry definitions vary by 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.⁸

Equation (2) is a benchmark model in our analysis, with $AA_{i,t}^*$ being deemed as latent or unobservable in practice. To further explore the association between the discrete adoptions of Anglo-American governance provisions by individual firms based upon their wider governance characteristics, we define the actually observed firm-level adherence to Anglo-American corporate governance, $AA_{i,t}$:

$$AA_{i,t} = \begin{cases} 1, & \text{if } AA_{i,t}^* \leq \gamma_1 \\ 2, & \text{if } \gamma_1 \leq AA_{i,t}^* \leq \gamma_2 \\ 3, & \text{if } \gamma_2 \leq AA_{i,t}^* \leq \gamma_3 \\ 4, & \text{if } \gamma_4 \leq AA_{i,t}^* \end{cases} \quad (3)$$

The numbers 1, 2, 3, and 4 in expression (3) are arbitrary and merely relate to numerical categories. Of particular relevance are the γ_1 , γ_2 , γ_3 and γ_4 as these are the unknown cut-off points, or thresholds, which define the ranges of the latent variable $AA_{i,t}^*$. In other words, given the ordered choice of relative degrees of adherence to the Anglo-American corporate governance provisions possible to an individual firm at IPO, the firm can choose the relative degree of corporate governance adoption that most closely represents its own true intention to assimilate with the Anglo-American institutional system, $AA_{i,t}^*$. $\mathbf{x}_{ij, t-1}$ in expression (2) does not contain a constant term because its effect is absorbed into the cut-off points, γ .

According to equation (2), we test the extent to which the set of firm-specific corporate governance parameters in vector $\mathbf{x}_{ij, t-1}$ can explain the observed adoption of Anglo-American corporate governance provisions by the firm. Under the assumption of normality, the probabilities of the observed governance adoption are attached to $\mathbf{x}_{ij, t-1}$, $\boldsymbol{\beta}'$, \mathbf{u}_j' , $\mathbf{z}_{ij, t-1}$, $\boldsymbol{\varepsilon}_{i,t}$ and $\boldsymbol{\gamma}$:

⁸ The industry classifications are Basic Materials, Consumer Goods Non-Cyclical, Consumer Goods Cyclical, Energy, Financials, Health, Industrials, Technology, Telecommunications and 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 among emerging economies.

$$\begin{aligned}
\text{Prob}\langle AA_{i,t} = 1 \mid x_{ij,t-1}\beta, z_{ij,t-1}, \varepsilon_{i,t} \rangle &= \Phi(\gamma_1 - x_{ij,t-1}\beta' + z_{ij,t-1}u') \\
\text{Prob}\langle AA_{i,t} = 2 \mid x_{ij,t-1}\beta, z_{ij,t-1}, \varepsilon_{i,t} \rangle &= \Phi(\gamma_2 - x_{ij,t-1}\beta' + z_{ij,t-1}u') - \Phi(\gamma_1 - x_{ij,t-1}\beta' + z_{ij,t-1}u') \\
\text{Prob}\langle AA_{i,t} = 3 \mid x_{ij,t-1}\beta, z_{ij,t-1}, \varepsilon_{i,t} \rangle &= \Phi(\gamma_3 - x_{ij,t-1}\beta' + z_{ij,t-1}u') - \Phi(\gamma_2 - x_{ij,t-1}\beta' + z_{ij,t-1}u') \\
\text{Prob}\langle AA_{i,t} = 4 \mid x_{ij,t-1}\beta, z_{ij,t-1}, \varepsilon_{i,t} \rangle &= 1 - \Phi(\gamma_4 - x_{ij,t-1}\beta' + z_{ij,t-1}u')
\end{aligned}
\tag{4}$$

where $\Phi(\cdot)$ is the cumulative normal distribution function. The structure of expression (4) provides the framework for an econometric model of how transitions in the adoption of Anglo-American corporate governance occur in firms at the IPO juncture. The estimations of parameters β , z , γ_1 , γ_2 , γ_3 and γ_4 are based on maximum likelihood, provided in *option 17* of *Stata version 14.1*.

EMPIRICAL RESULTS

Descriptive statistics

Table 3 reveals considerable variation across the African countries in terms of formal institutional quality, prevalence of informal tribal institutions, and the average firm-level degree of adoption of Anglo-American corporate governance measures. In particular, it is notable that the markets of Southern Africa, surrounding the largest market of South Africa, all have low degrees of tribalism and higher institutional quality, alongside elevated adoption rates of Anglo-American corporate governance. Contrastingly, the North and West African sub-regions are characterized by high tribalism, generally low institutional quality and correspondingly weak adoption of Anglo-American corporate governance. East Africa exhibits a somewhat more mixed profile, with considerable intra-regional variation in tribalism and institutional quality, alongside mixed degrees of firm-level adoption of Anglo-American corporate governance.

The average firm-level adoption of Anglo-American corporate governance provisions is 41%, varying considerably, from 23% on the Francophone West African regional stock exchange,

the BRVM, 30% in Morocco, and 31% in the Cape Verde Islands, to 67% in Botswana and 87% in South Africa. No IPO firm in our sample attained a value of 100, i.e. the full “score” for compliance with every Anglo-American corporate governance provision. Variation is also reflected in the distribution of firms, across markets, among our four designated bins or categories of corporate governance adoption, with 52 or 26% of the sample firms having little corporate governance adoption, a further 109 or 55% having minimal corporate governance adoption, 26 or 13% adopting a slight majority of provisions, and only 14 or 7% adopting a large majority of the corporate governance provisions.

Table 3

Bivariate analysis

Pearson correlations are reported in Table 4 and indicate no problems of multicollinearity. The only exception is the high (-0.806) and statistically significant ($p \leq 0.01$) correlation between our two moderating variables: formal institutional quality and the tribal index. An inspection of the variance inflation factors for all the independent variables reveals them to be unproblematic (under 10) and the mean variance inflation factor for all independent variables together is 2.89. The variance inflation factors for both institutional quality and the tribal index are acceptable, being below 4.80.

Table 4

Multivariate analysis

The results from our mixed-effects hierarchical linear ordered probit model regressions are presented in Table 5. Model 1, as our benchmark regression, contains only our control variables. Model 2 tests the associations together with traditional controls applying to *Hypotheses 1 to 5*, while models 3 and 4 test the moderation of our hypotheses by institutional quality and the informal

tribal index. The coefficients are interpreted in terms of the association between any given independent variable and the likelihood (against the alternative three lower categories) of the outcome of the highest category – category 4 – i.e. that the firm adopts between 76% and 100% of the Anglo-American corporate governance provisions. The threshold parameters, γ_1 , γ_2 , and γ_3 are reported for each of the four models and are necessary for the computations but of no intrinsic interest on their own. Equally, a country-level constant is reported in the random component of variance in line with the mixed-effects hierarchical linear aspect of modelling and accounting for a nested data structure.⁹

The empirical evidence in model 2 – without considering moderating effects - supports the statistical maintenance of *Hypotheses 2 to 4* and reveals a significant hypothesized association between the equity ownership retained by the corporate block holders and private equity entities on the one hand, and the likelihood of a more extended adoption of Anglo-American governance on the other. The opposite is true for business groups retained ownership and a decreasing likelihood of more extended adoption of Anglo-American governance.

The evidence from models 3 and 4 provides statistical support for the theoretical arguments provided by *Hypotheses 1, 3, 4* and *5*, relating to moderation by institutional quality and tribalism. Hence, for corporate block holders (*Hypothesis 2*) we find a strong positive association but with no moderating effects from institutional quality or tribalism. For the other block owner categories the moderating effects are found significant and in several cases found to override the underlying main effects demonstrating the appropriateness of our novel institutional logics approach.

In terms of diagnostic statistics, we observe that across all four models the Wald χ^2 test supports rejection of the null hypotheses ($p \leq 0.01$). Furthermore, the final likelihood (LR) vs. ordered probit test is statistically significant ($p \leq 0.01$) and shows that there is enough variability between countries to favor a random-effects ordered probit regression over a standard ordered

⁹ However, while being essential to the modelling of underlying latent model, the threshold parameters and country-level random variance component are omitted from further discussion in terms of causality between the observed variables.

probit regression. This provides support for our inclusion of the additional country random variance term and our adoption of a hierarchical linear model to account for the nested structure of our dataset.

Table 5

Robustness checks

We conducted two robustness checks designed to address questions regarding both the informational loss in probit models and potential alternative modeling specifications arising from our dependent variable. We do not report these results for brevity reasons, but they are available from the authors upon request.

We constructed a hierarchical linear Poisson count model utilizing our dependent variable consisting of four categories of governance adoption by a firm. This assumes that firms make decisions at IPO to adopt as many or as few Anglo-American governance provisions independently of one another. The results - the direction, size and statistical significance of the coefficients in all cases - confirm those of our ordered probit model.

Finally, an OLS regression utilizing dependent variables of the underlying index and the four respective categories reveals directions and proportionate absolute sizes of coefficients of association similar to those of our hierarchical linear ordered probit. The adjusted R^2 s are generally high and over 20% across all models, except in the case of moderation by formal institutional quality. OLS-determined marginal effects confirm those of our ordered probit models.

DISCUSSION AND CONCLUSIONS

Theoretical implications and contributions

In this study, we apply the institutional logics theoretical perspective in analyzing the international diffusion of firm-level corporate governance “best practices” at the critical time of the IPO. We measure the migration of such corporate governance practices through the diffusion of a variety of measures attributed to Anglo-American shareholder-value corporate governance in the institutionally heterogeneous setting of Africa. Although the empirical evidence comes from a multiyear sample across African countries, we maintain that the same arguments could be applied more broadly across emerging economies. Specifically, we find empirical support for the argument that indigenous block owner groups represent a unique tying of the firm to a nexus of indigenous institutions affecting the probability of an implementation of Anglo-American corporate governance measures. More broadly, we suggest that our findings lend support to the relevance of indigenous structures (beyond block shareholders) for the migration of Anglo-American corporate governance practices across emerging market IPO firms.

We maintain that the institutional logics perspective helps to rationalize the multilevel inter-institutional structure of emerging economy firms, as it considers heterogeneity both between and within societies. In our study, this is shown by the fact that we observe contrasting levels of adoption of Anglo-American corporate governance in the focal IPO firm in relation to retained ownership by a variety of distinct entities that are embedded in the indigenous political economy and are themselves subject to rival institutional logics. These entities are nonexecutive directors – whose very being is contingent on the socialized definitions of roles within the Western corporate bureaucratic organizational form – corporate block owners, business groups, private equity, and lastly the state itself. In this way, we extend Hoskisson *et al.* (2002)’s notion of “conflicting voices” arising from different block owners within the firm through our explicit consideration of the institutionalized logics that regulate and govern these heterogeneous shareholders.

We conclude that our adopted perspective is particularly useful given the incongruities that exist across many developing and emerging economies concerning formal and informal corporate governance and organizational frameworks, the formal originating from colonial-era transplantation and the informal predominantly communitarian. We thereby emphasize the shortfalls in traditional institutional approaches (e.g. North, 1989, 1994; Aoki, 2001) that focus on broad aggregate-level constructs with the assumptions of institutional uniformity and homogeneity nationally. We suggest that rational adoption theorists (e.g. Coffee, 2001) are inherently “under-socialized” in assuming a worldwide diffusion of “best practice” corporate governance codes as the natural outcome of competitive forces in the attraction of foreign investment.

At the firm level, our application of the institutional logics perspective provides a valuable rationale for firms’ choices of corporate governance practices within emerging and developing nations. In addition, our study highlights the dynamic interaction between shareholders, organizations and their structural form, and the wider societal-level institutional framework – be this in terms of formal institutional quality or tribalism. In particular, the preferences of heterogeneous block owners are revealed in terms of their own institutional logics drawn from the societal realms within which they are embedded. Our study also suggests that institutional logics play a significant role in the focal firm’s adoption or non-adoption of Anglo-American shareholder-value governance tenets at the time of a major institutional transition, the IPO event.

Our public policy recommendation to international development agencies, national regulatory authorities and corporate code bodies, is that they broaden the theoretical perspective when selecting corporate governance policies and measures. Moreover, our results support the criticism of a “one-hat-fits-all” policy in the debate on the convergence of corporate governance regimes.

Limitations and future directions

Our results lead us to question the conventional wisdom of the universality of “corporate governance best practice”, commonly with the concept of world-wide corporate governance convergence at its center. The results have implications in terms of the limitations of promoting uniform economic development policy. A considerable part of such policies tends to be shaped by neoclassical and rational adaptation perspectives, the universality of Western-style business education, and associated global industry norms. In contrast, our findings highlight the important role of the demographic shape and composition of the indigenous political economy, being itself shaped by existing legal and institutional frameworks and less so by Anglo-American corporate governance “best practice” tenets.

One limitation of our study relates to the geographic focus of the sample, being limited to the African continent. While this is beneficial in terms of the considerable variation in institutional quality, demographic structure and composition of polity and societal fractionalization, a useful extension would be to apply our model to a broader worldwide sample in order to strengthen generalizability.

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Table 1. Elements of Anglo-American firm-level governance

This table outlines the governance elements we have included as an integral part of the Anglo-American (or “markets-orientated”) firm-level governance structure. Each element is defined alongside its source. All indices are equally weighted arithmetic averages of constituent elements. There are two overall or aggregate indices denoting firm’s adoption of overall Anglo-American governance – where the distinction between the two is based on (1) if there is at least one independent nonexecutive director present on board or (2) a minimum of 50% of board are independent nonexecutives. Compiled by authors from individual IPO listings prospectuses for all IPOs that have taken place across Africa between January 2000 and August 2016

Element	Definition
Separation of ownership from control	
Presence of non-ordinary shares	Binary 1/0 variable. Takes value of 1 if firm exclusively uses ordinary (one share one vote) shares across entire shareholder base. Thus there is no discrimination between shareholders through the use of non-voting stock, preference shares, convertible instruments or share structures inferring differentials in voting rights – such as A, B, C class shares.
Proxy voting	Binary 1/0 variable. Takes value of 1 if a clear statement is made in listing prospectus regarding recognition and arrangements for voting by proxy
International Auditor	Binary 1/0 variable. Takes value of 1 if either an international auditor or its local subsidiary is used as the firm’s auditor
International Accounting standards	Binary 1/0 variable. Takes value of 1 if firm declares it’s accounts and financial statements have been prepared in accordance to international (as opposed to indigenous) accounting standards. These are typically GAAP, US GAAP or IFRS.
Incentive compensation	
CEO pay disclosure	Binary 1/0 variable. Takes value of 1 if CEO salary is disclosed in listing prospectus. This relates to improved transparency with external investors (principals) and a reduction in their bonding costs
Executive stock options	Binary 1/0 variable. Takes value of 1 if firm remunerates its executives with stock options or other derivative instruments
Executive bonuses	Binary 1/0 variable. Takes value of 1 if firm remunerates its executives with performance-related bonus payments at end of tax year.
Executive ownership	Binary 1/0 variable. Takes value of 1 if executives are entitled to stock ownership as part of their compensation arrangements.
Board monitoring	
Unitary Board	Binary 1/0 variable. Takes value of 1 if the board of directors is unitary i.e. it is comprised of a single tier encompassing executive and nonexecutives
CEO = Chairperson	Binary 1/0 variable. Takes value of 0 if the same individual occupies both the roles of CEO and Chairperson and 1 otherwise
Remuneration committee	Binary 1/0 variable. Takes value of 1 if the firm has established a remuneration committee as part of its governance apparatus – where this exclusively decides compensation levels and structure for board members
Remuneration committee independence	Binary 1/0 variable. Takes value of 1 if the remuneration committee is independent (in terms of membership) from CEO or other dominant block shareholders
Auditor committee	Binary 1/0 variable. Takes value of 1 if the firm has established a audit committee as part of its governance apparatus – where this is solely responsible for the firm undertaking audits of its activities and for ensuring these audits are performed by external independent auditors

Auditor committee independence	Binary 1/0 variable. Takes value of 1 if the audit committee is independent (in terms of membership) from CEO or other dominant block shareholders
Attendance statement of nonexecutives	Binary 1/0 variable. Takes value of 1 if the firm either declares an Attendance Rota of nonexecutives in designated board meetings (essential to their performing monitoring function within firm on behalf of external principals) or a clear statement that attendance is checked and duly reported to external shareholders
(a) Independent nonexecutives > 1	Binary 1/0 variable. Takes value of 1 if there is at least one independent nonexecutive on board
(b) Independent nonexecutives > 50% of total nonexecutives	Binary 1/0 variable. Takes value of 1 if a minimum of 50% of nonexecutives are independent and unaffiliated to CEO or any external shareholder principal
Governance indices	
Continuous data indices	
Anglo-American overall index (>1)	Equally-weighted arithmetic average of all constituent elements – except with sole inclusion of (a) “independent nonexecutives greater than one” with (b) excluded
Anglo-American overall index (>50%)	Equally-weighted arithmetic average of all constituent elements – except with sole inclusion of (b) “independent nonexecutives over 50% of all nonexecutives” with (a) excluded
Categoric data indices	
Anglo-American overall index (>1) ordinal – categories	A four category variable is created – where individual firm-level values of aggregate Anglo-American overall index (>1) are allotted into four distinct categories or bins: (1) 0 – 0.25, (2) 0.26 – 0.50, (3) 0.51 – 0.75, (4) 0.76 - 1
Anglo-American overall index (>50%) ordinal – categories	A four category variable is created – where individual firm-level values of aggregate Anglo-American overall index (>50%) are allotted into four distinct categories or bins: (1) 0 – 0.25, (2) 0.26 – 0.50, (3) 0.51 – 0.75, (4) 0.76 – 1

Table 2. Description of Control Variables and Data Sources

Variable	Definition	Rationale for inclusion	Data source
Environmental controls			
Common law	1/0 binary dummy with value 1 if English common law jurisdiction and 0 if civil code law	Differences in formal institutional investor protection	La Porta <i>et al</i> (2000)
Log (GDP per capita)	Natural logarithm of GDP per capita. GDP is in US\$ at constant 2000 prices	Country wealth per capita	World Bank
Board controls			
Log (board size)	Natural logarithm of the total number of directors on board.	Superior access to resources; Managerial coordination issues and free-riding	IPO prospectuses
Log (Average Executive tenure)	Natural logarithm of average executive tenure (expressed in years)	Executive entrenchment effects	IPO prospectuses
Ratio nonexecutives on board	Ratio of independent non-executives – to board size.	Monitoring and surveillance oversight	IPO prospectuses
CEO = Founder	Binary dummy taking value 1 if founder is CEO and 0 otherwise	Founder succession at IPO juncture and impact on social networks and focused leadership	IPO prospectuses
Ratio social elite nonexecutives	Ratio of the total number of non-executives drawn from senior military, government, commercial and university backgrounds divided by board size	Degree to which firm legitimizes its governance structure through co-optation with demographically narrow indigenous political economy	IPO prospectuses and indigenous sources outlined in Appendix Table 1
Firm controls			
Log (Revenue)	Natural logarithm of pre-tax revenues in pre-IPO year. Expressed in US\$000	Size and complexity of firm’s operations and complexity of board of directors task environment	IPO prospectuses as well as from Al-Zawya, national stock exchanges, and www.AfricanFinancials.com
ROA	Accounting return on assets (ROA) is defined as (Net Income/ Total Assets) owing to frequent omission of taxation and interest income from listing prospectuses and filings	Firm performance	IPO prospectuses
Log (Firm age)	Natural logarithm of firm age – measured in years from IPO year to year of establishment of firm.	Captures “liability of newness”	IPO prospectuses
Ratio debt to total assets	Ratio of total debt liabilities to total asset size of firm. Both are expressed in US\$.	Financial gearing or leverage	IPO prospectuses or annual reports at time of listing
IPO controls			
Shares offered/ Total shares	Ratio of shares offered at IPO to total shares issued and outstanding in firm post-IPO.	Captures demand for external finance and potential for additional conflicting voices into organizational structure	IPO prospectuses
Lead Manager is Foreign	Binary dummy taking value 1 if lead manager is foreign and 0 otherwise	Captures potential source of infusion of institutional logics into firm	IPO prospectuses

Table 3. Descriptive statistics of Anglo-American governance adoption and institutional environment

This table outlines the country averages of firm-level adoption of Anglo-American governance measures – designated by the Anglo-American index that includes a minimum of one independent nonexecutive director on the board (i.e. “>1”). The four respective categories of firm adoption of Anglo-American governance are designated as 0 – 0.25, 0.26 – 0.50, 0.51 – 0.75, and finally 0.76 – 1. Formal Institutional quality – which is the average of the six World Bank governance metrics (democratic voice and accountability, rule of law, regulatory quality, political stability and absence from terrorism, government effectiveness and corruption control) as developed by Kaufman et al (2009). Informal tribal index denotes the tribal index developed by University of South Florida. N is sample size of IPO firms

Market	N	Firm-level Anglo-American governance (0 – 1)					Country-level Institutional environment	
		>1 index	0 – 0.25	0.26 – 0.50	0.51 – 0.75	0.76 – 1	Formal: Institutional quality	Informal: Tribal index
		%	#	#	#	#	%	%
North Africa								
Algeria	3	39.58	0	3	0	0	33.77	71.00
Egypt	11	48.86	2	6	2	1	38.94	68.00
Morocco	37	30.24	15	21	1	0	46.82	72.00
Tunisia	39	33.81	13	26	0	0	48.88	53.00
East Africa								
Kenya	7	60.71	0	2	5	0	39.06	81.00
Tanzania	7	40.18	2	3	2	0	42.95	64.00
Uganda	1	37.50	0	1	0	0	39.37	71.00
Rwanda	1	37.50	0	1	0	0	51.92	55.00
Mauritius	13	39.90	3	7	3	0	72.11	51.00
Seychelles	3	33.33	1	2	0	0	56.15	51.00
West Africa								
Nigeria	31	35.28	10	20	1	0	29.09	84.00
BVRM	6	22.92	5	1	0	0	42.22	70.83
Ghana	15	41.67	1	10	4	0	52.84	61.00
Cape Verde Islands	1	31.25	0	1	0	0	58.62	35.00
Sierra Leone	1	37.50	0	1	0	0	36.08	68.00
Southern Africa								
Botswana	7	66.96	0	1	5	1	68.88	46.00
Malawi	1	56.25	0	0	1	0	48.87	67.00
Zambia	2	65.63	0	1	0	1	46.88	72.00
Namibia	4	68.75	0	1	2	1	61.17	51.00
Mozambique	1	31.25	0	1	0	0	44.56	56.00
South Africa	10	86.88	0	0	0	10	59.26	52.00
Africa overall	201	41.04	52	109	26	14	47.21	64.72

Table 4. Pearson Correlation analysis

This table reports the Pearson correlations between all variables included in our study. These are the Anglo-American governance index – representing firm-level adoption of Anglo-American governance measures, including at least 1 independent nonexecutive on board of directors as dependent variable. Five shareholder retained post-IPO ownership categories – namely nonexecutive directors, corporate block, business group, private equity (Business Angel and Venture Capitalist), and state (including government, state and regional development agencies controlled by state). Four Institutional environment controls are the institutional quality metric which is a simple arithmetic average of the six World Bank Governance indicators – as developed by Kaufman et al (2009), tribal index – as developed by University of South Florida, common law dummy taking value 1 if jurisdiction is common law and 0 otherwise i.e. if civil code law and finally the natural logarithm of GDP per capita. Our three board variables are natural logarithm of board size in terms of total number of executive and nonexecutive directors, ratio of nonexecutives on board, being ratio of nonexecutives to board size, natural logarithm of the average tenure of executives, and finally the ratio social elites on board – defined as number of nonexecutives drawn from social elite backgrounds (senior military, government, university and commercial) to board size. Log (revenues) is natural logarithm of pre-tax firm revenues while ROA is accounting return to assets. Log (age) is natural logarithm of time (in years) between IPO year and year of establishment. Ratio total debt to total assets is a measure of leverage or gearing (see Bruton et al, 2010) with this being total debt divided by total asset value. Finally shares offered at IPO to total shares issued as well as a binary dummy indicating whether Lead Manager is foreign (and 0 otherwise) are our last IPO related controls included.

	1	2	3	4	5	6	7	8	9	10
1 Anglo-American overall index (>1)	1.000									
2 Nonexecutive own	0.161*	1.000								
3 Corporate block own	0.141*	-0.106	1.000							
4 Private equity own	0.104	0.003	-0.142*	1.000						
5 Business Group own	-0.237**	-0.107	-0.256**	-0.063	1.000					
6 State own	-0.123†	-0.083	-0.043	0.043	-0.047	1.000				
7 Institutional quality	0.272**	-0.087	0.169*	-0.098	-0.050	0.038	1.000			
8 Tribal index	-0.228**	0.157*	-0.107	0.050	-0.009	-0.027	-0.806**	1.000		
9 Common law	0.426**	0.161*	0.149*	-0.354**	-0.067	-0.131†	-0.206**	0.292**	1.000	
10 Log (GDP per capita)	0.150*	-0.055	-0.107	0.090	0.076	0.029	0.452**	-0.536**	-0.426**	1.000
11 Log (board size)	-0.119†	0.107	-0.168*	0.167*	0.098	0.215**	-0.142*	0.210**	-0.141*	-0.044
12 Log (Av. Executive tenure)	-0.001	0.041	-0.180*	0.086	0.091	-0.063	-0.200**	0.231**	0.028	-0.113
13 Ratio nonexecutives on board	0.105	0.075	0.205**	0.088	0.027	0.078	-0.092	0.056	0.215**	-0.116†
14 CEO = Founder	0.059	0.050	-0.136†	-0.108	0.019	-0.201**	-0.028	-0.077	0.040	0.156*
15 Ratio social elite nonexecutives	0.161*	0.084	0.096	-0.067	-0.151*	-0.022	-0.226**	0.270**	0.442**	-0.265**
16 Log (Revenue)	0.204**	0.095	-0.164*	0.298**	0.137†	0.054	-0.087	0.118†	-0.152*	0.232**
17 ROA	0.055	0.077	-0.122†	0.037	0.019	-0.005	-0.005	0.050	-0.044	0.018
18 Log (Firm Age)	-0.108	0.037	-0.213**	0.182*	0.038	0.150*	-0.176*	0.258**	-0.145*	-0.049
19 Ratio debt to total assets	0.014	-0.018	0.076	0.048	-0.046	-0.037	-0.064	0.001	-0.014	0.058
20 Shares Offered/ Total Shares	-0.040	0.077	0.116	-0.292**	-0.086	-0.055	-0.095	0.034	0.276**	-0.247**
21 Lead Manager is foreign	0.286**	0.004	0.027	-0.054	0.081	-0.028	-0.023	0.071	0.035	-0.062

† p < 0.10; * p < 0.05; ** p < 0.01

Table 4. Correlation analysis (continued)

	11	12	13	14	15	16	17	18	19	20	21
1 Anglo-American overall index (>1)											
2 Nonexecutive own											
3 Corporate block own											
4 Private equity own											
5 Business Group own											
6 State own											
7 Institutional quality											
8 Tribal index											
9 Common law											
10 Log (GDP per capita)											
11 Log (board size)	1.000										
12 Log (Av. Executive tenure)	-0.011	1.000									
13 Ratio nonexecutives on board	0.123†	0.112	1.000								
14 CEO = Founder	-0.180*	0.084	-0.124†	1.000							
15 Ratio social elite nonexecutives	-0.059	-0.048	0.242**	-0.091	1.000						
16 Log (Revenue)	0.283**	0.100	-0.017	-0.091	-0.113	1.000					
17 ROA	0.011	0.119†	0.003	0.077	-0.030	0.195**	1.000				
18 Log (Firm Age)	0.361**	0.429**	-0.024	-0.321**	-0.118†	0.305**	0.126†	1.000			
19 Ratio debt to total assets	0.097	0.010	0.121†	0.046	0.007	0.020	-0.076	-0.076	1.000		
20 Shares Offered/ Total Shares	-0.091	-0.152*	0.137†	-0.052	0.201**	-0.296**	-0.063	-0.225**	0.034	1.000	
21 Lead Manager is foreign	0.053	-0.041	0.058	-0.056	-0.015	0.196**	0.054	0.038	-0.039	0.071	1.000

† p < 0.10; * p < 0.05; ** p < 0.01

Table 5. The mixed effects hierarchical linear ordered probit model results for firm's adoption of Anglo-American governance^{a, b, c}

This table presents the mixed effects hierarchical linear ordered probit model results for dependent variable adopting one of four values: value 1 represents firm's adoption of Anglo-American governance between 0 and 25%, value 2 represents firm's adoption of Anglo-American governance between 26% and 50%, value 3 represents firm's adoption of Anglo-American governance between 51% and 75%, and finally value 4 represents firm's adoption of Anglo-American governance between 76% and 100%. In all cases the formal institutional quality and informal tribal indices are mean-centered and normalized. Additional country-level constant is included in variable part of variance. Explanatory and control variables are all defined in Table 2

	Dependent variable: Anglo-American overall index (>1) – four ordinal categories			
	Controls only	Ownership only	Formal institutions	Informal institutions
	Model 1	Model 2	Institutional quality Model 3	Tribal index Model 4
Fixed variance				
Hypotheses				
Nonexecutive own	-- --	1.645 [1.68]	1.227 [1.61]	2.226 [1.64] †
Corporate block own	-- --	2.642 [0.75]***	3.665 [1.12]***	3.104 [0.95]***
Private equity own	-- --	2.772 [1.26]*	3.033 [0.94]***	2.816 [0.90]***
Business Group own	-- --	-1.011 [0.91] †	-0.799 [0.81]	-1.055 [0.68] †
State own	-- --	-0.394 [1.43]	-0.821 [1.55]	-0.066 [1.15]
Moderation – formal				
Nonexecutive own x Institutional quality	-- --	-- --	3.016 [1.49]**	-- --
Corporate block own x Institutional quality	-- --	-- --	-0.668 [0.90]	-- --
Private equity own x Institutional quality	-- --	-- --	-2.369 [0.80]***	-- --
Business Group own x Institutional quality	-- --	-- --	-1.897 [0.61]***	-- --
State own x Institutional quality	-- --	-- --	7.220 [4.55] †	-- --
Moderation – informal				
Nonexecutive own x Tribal index	-- --	-- --	-- --	-2.552 [1.46]**
Corporate block own x Tribal index	-- --	-- --	-- --	0.569 [0.54] †
Private equity own x Tribal index	-- --	-- --	-- --	2.097 [0.56]***
Business Group own x Tribal index	-- --	-- --	-- --	1.333 [0.53]**
State own x Tribal index	-- --	-- --	-- --	-2.857 [1.05]***
Environmental controls				
Institutional quality	-- --	-- --	1.038 [0.67] †	-- --
Tribal index	-1.303 [0.59]**	-1.312 [0.59]**	-- --	-1.618 [0.57]***
Common law	4.622 [1.26]***	4.621 [1.33]**	5.019 [1.42]***	4.932 [1.33]***
Log (GDP per capita)	1.390 [0.63]*	1.462 [0.66]*	1.928 [0.79]**	1.517 [0.62]**
Board controls				
Log (board size)	-0.691 [0.69]	-0.829 [0.66]	-0.836 [0.65] †	-0.798 [0.64] †
Log (Av. Executive tenure)	0.364 [0.25] †	0.532 [0.21]***	0.463 [0.25]*	0.463 [0.25]**
Ratio nonexecutives on board	4.739 [1.18]***	3.849 [1.22]***	3.723 [1.39]***	3.606 [1.38]***
CEO = Founder	0.263 [0.43]	0.483 [0.54]	0.765 [0.65]	0.689 [0.67]
Ratio social elite nonexecutives	2.022 [1.84]	2.515 [1.87] †	2.589 [1.98] †	2.980 [1.93] †

Firm controls				
Log (Revenue)	0.469 [0.11]***	0.550 [0.11]***	0.553 [0.10]***	0.597 [0.10]***
ROA	-0.073 [0.66]	-0.050 [0.56]	-0.579 [0.56]	-0.310 [0.56]
Log (Firm Age)	-0.190 [0.39]	-0.149 [0.40]	-0.152 [0.43]	-0.116 [0.41]
Ratio debt to total assets	-0.212 [0.23]	-0.185 [0.23]	-0.261 [0.23]	-0.156 [0.23]
IPO controls				
Shares Offered/ Total Shares	-1.841 [1.05]*	-1.821 [1.11]*	-1.699 [1.45]	-1.856 [1.33] †
Lead Manager is foreign	1.696 [0.80]*	1.886 [0.82]**	1.732 [0.83]**	1.835 [0.80]**
Random variance				
Country-level constant	1.270 [0.46]	1.888 [1.43]	2.660 [2.17]	2.223 [1.75]
γ_1	13.732 [6.55]*	17.119 [6.51]***	20.602 [6.94]***	17.641 [6.17]***
γ_2	19.597 [7.30]***	23.314 [7.16]***	27.272 [7.27]***	24.147 [6.73]***
γ_3	23.339 [7.32]***	27.148 [7.17]***	31.360 [7.19]***	28.218 [6.64]***
No. Obs.	190	190	190	190
Wald χ^2 (prob.)[variable]	64.27 (0.00) [38]***	64.93 (0.00) [43]**	62.87 (0.00) [47]*	65.00 (0.00) [48]**
LR test vs. ordered probit model	15.84 (0.00)***	13.34 (0.00)***	11.62 (0.00)***	12.51 (0.00)***
Log pseudo-likelihood	-119.54	-114.88	-111.80	-111.33

^a Binary effects for year and industry were included in the models but are not reported in the table; ^b Standard errors are in parentheses; ^c Country-cluster adjusted standard errors & covariance; † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.005$

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'Organisation et des Surveillances 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, Aryn Investments and stockbroking, Lagos)

BVRM	<p>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 chargé de la formation, BRVM) Abidjan brokers: M. Auguste Kouakou (Gniman-Finance SA, Abidjan); M. Hermann Boua (Hudson et Cie, Abidjan)</p> <p>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)</p>
Ghana	<p>Websites: Ghana stock exchange (http://www.gse.com.gh/) Accra-based interviews: Ghana stock exchange: Worlanyo Amoa (Senior Manager, Research and Product Development, 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)</p>
Cameroon	<p>Websites: Douala stock exchange (http://www.douala-stock-exchange.com/) Pretoria (South Africa)-based interviews: Cameroon Embassy, Pretoria, South Africa</p>
Cape Verde	<p>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)</p>
Sierra Leone	<p>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)</p>
Southern Africa	
Botswana	<p>Website: Botswana stock exchange [BSE] (http://www.bse.co.bw/) Telephone interviews and data procurement: Kopane Bolokwe (Operations officer, BSE) Gaborone-based interviews with Head of Operations, BSE; President of Stock Brokers Botswana</p>
Malawi	<p>Websites: Malawi stock exchange [MSE] (http://www.mse.co.mw/); The Nation business journal (http://mwnation.com/) Telephone interviews and data procurement: Malawi stock brokers, Blantyre, Malawi</p>
Zambia	<p>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</p>
Namibia	<p>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)</p>
Mozambique	<p>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</p>
South Africa	<p>Websites: Johannesburg stock exchange [JSE] (https://www.jse.co.za/) Telephone-based procurement: Market data department, JSE, Johannesburg, South Africa</p>
