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# **The Impact of Business Group Affiliation and Country-Level Institutions on Corporate Governance of Emerging Market Firms**

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# THE IMPACT OF BUSINESS GROUP AFFILIATION AND COUNTRY-LEVEL INSTITUTIONS ON CORPORATE GOVERNANCE OF EMERGING MARKET FIRMS

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## **Abstract**

This study outlines how the corporate governance of emerging market firms is influenced by corporate affiliation and institutional embeddedness. We argue that the stronger the business group affiliation, the less likely is the emerging market firm to adopt shareholder value enhancing corporate governance, and that this relationship is moderated by institutional quality and tribalism. Based on 189 initial public offerings (IPOs) from 22 African countries between 2000 and 2016, we find a significant negative relationship between business group ownership and IPO firms' quality of corporate governance. We also find this relationship to be significantly negatively moderated by country-level institutional quality and positively by indigenous tribalism. The result adds to the understanding of barriers to convergence towards one uniform global corporate governance model.

**Keywords:** Corporate Governance Practice, Africa; Emerging Economies; IPO; Business Groups

**JEL:** G23; G38; M12; M14; M16

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# THE IMPACT OF BUSINESS GROUP AFFILIATION AND COUNTRY-LEVEL INSTITUTIONS ON CORPORATE GOVERNANCE OF EMERGING MARKET FIRMS

## INTRODUCTION

Family is central to African business, where the extended relationships of families - emphasizing mutual reciprocity - form the basis of financing and social welfare support (Economist, 2019a). In conjunction with African nation states' policies commonly emphasizing import substitution and protectionism, gigantic diversified business groups (BGs) have arisen, such as those of Nigeria's *Dangote* and Egypt's *Sawiris* families. Such family BG networks often rival those of nation states in attracting foreign investment from both Chinese and Russian as well as Western sources (Economist, 2017). Taken together, these attributes have generated a prolific expansion of BGs across Africa and beyond, where this has led to their superseding of Western multinational behemoths (Economist, 2019b). Given this significant role of BGs, we are motivated to explore the factors influencing the adoption of corporate governance measures aimed at facilitating their strategic objectives.

In this article, we examine how emerging market BGs attract additional external investment through their choice of corporate governance model. As representatives of emerging market BGs, the BGs we study are from countries on the African continent, which has the virtue of offering us a natural laboratory of diverse formal and informal institutional settings. The infusion of resources represents a trade-off choice for the focal firm between resources from the family BGs on the one hand against external minority resource provision on the other. Higher direct ownership by the family BG provides integral access to the resources of the wider group (e.g. Masulis, Pham, & Zein, 2011; Beña & Ortiz-Molina, 2013), but also signals quality in terms of the unliquidated and maintained holdings in the firm of the BG's ultimate owner (Certo, 2003). Conversely, we suggest that lower direct ownership and increased reliance on a shareholder value corporate governance model is justified by the necessity to reduce the bonding costs for external investors. The level of

adoption of shareholder value governance mechanisms therefore represents a BG's balancing of legitimacy from rival domains (Suchman, 1995): between international capital markets on the one hand as opposed to the indigenous socio-cultural framework on the other. Thus, our first theoretical contribution is to explore how strategic financing factors influence BGs' adoption of shareholder value corporate governance in their constituent firms.

We claim institutional contingencies to be critical factors influencing BGs' financing strategies and choice between rival governance models. In this study, we consider both formal institutional architecture and informal tribalism. We introduce a parsimonious theoretical framework integrating both these institutional dimensions, using a novel extension of Douglass North's seminal perspective on the political economy (e.g. North, 1991, 1994). Here, formal institutional quality is characterized as an outcome of the demographic inclusivity of underlying polity, while informal tribalism within the socio-cultural framework is claimed to profoundly shape the polity. We suggest as our second theoretical contribution that our additional consideration of institutionalized relational contracting systems - prevalent across Africa and the Middle East (e.g. Barnett, Yandle, & Naufal, 2013; Berger, Silbiger, Herstein, & Branes, 2015) alongside national incentive structures - constitutes a new approach and provides a dynamic means of theorizing the moderating impact on BG financing and governance choices.

Our study also provides two methodological contributions. The first is our introduction of a new index comprised of 16 elements, each of which represents a tenet of shareholder value corporate governance. This is constructed at the firm level, through labour-intensive manual extraction of elements from individual firms' initial public offering (IPO) listing prospectuses. It builds on the seminal firm-level index of Gompers, Ishii & Metrick (2003), which was constrained in application to a single-country US sample. The new proposed index is adjusted for data availability and institutional limitations on corporate governance within the context of emerging economies. This implies it is simple to construct, tractable, and has universal applicability.

The second methodological contribution is found in our novel application of the informal tribal index of Jacobson & Deckard (2012), which addresses shortcomings in the more static empirical measure of ethnic fractionalization from past studies (e.g. Alesina, Devleeschauwer, Easterly, Kurlat & Wacziarg, 2003). Additionally, it takes account of sociological interactions within and between ethnic lineages. The applied tribalism measure provides a plausible means to account for informal diversity within national frontiers, thereby partially addressing serious shortcomings with aggregate measures of “national culture” (Tung & Stahl, 2018).

Our empirical analysis, based on 189 IPOs from 22 African countries between 2000 and 2016, reveals a significant negative relationship between BG ownership and the constituent IPO firms’ quality of corporate governance. This relationship is found to be significantly negatively moderated by country-level institutional quality, and positively by indigenous tribalism. The result adds to the understanding of barriers to a convergence towards one uniform global corporate governance model.

Our study proceeds in the next section by outlining the theory and hypotheses. The section thereafter handles data considerations, before the next focusses on methodology, variable definitions, and the empirical model. The section that then follows presents the empirical results, which are discussed in the subsequent one. The paper ends with concluding remarks and policy recommendations.

## **THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT**

Prior literature highlights that BGs are a common feature of emerging economies (Khanna & Rivkin, 2001) in Latin America (Khanna & Palepu, 2000), East Asia (Claessens, Djankov, & Lang, 2000; Hu, Cui & Aulakh, 2019), South Asia (Khanna & Yafeh, 2007), and Africa (Tajeddin & Carney, 2019; Hearn, Oxelheim & Randøy, 2018). The dominating economic rationale behind BG formation has been their extended organizational form and its optimality in the intermediation of

resources across the constellations of nominally independent firms under joint strategic control (Khanna & Palepu, 2000). Such internal intermediation acts as a substitute for deficiencies in the external contracting environment, or “voids” that impede efficient external resource coordination (Khanna & Palepu, 2000; Khanna & Rivkin, 2001).

The sociological basis of the extended conglomerate organizational form is that of family, where this constitutes the basic social unit within the fabric of society. Altruism - cohesively binding together extended family members – then forms the basis of family self-interest. While costs of family participation in firms have been attributed to their being stewards towards the family rather than the firm and its stakeholders, these arguments are particularly relevant in the context of diversified conglomerate BGs. Much of the durability of BGs arises from their ability to provide effective mutual assurance to constituent firms, where they can draw on the diversified group structure transcending industries as a form of natural hedge in income diversification. Supplemental to this and central to the functioning of BGs is their domination of industries, enabling the extraction of monopoly rents, alongside their powerful capability to lobby government regulators so as to protect these privileged positions (Khanna & Yafeh, 2007).

Fogel (2006) argues that ultimate controlling owners, notably oligarchic families, routinely employ a range of means to accentuate their control over subordinate firms in excess of their direct ownership entitlements. Together, these attributes act to subsidize underperforming constituents of the BG, while acting as an effective barrier, inhibiting competition and suppressing entrepreneurial innovation (Khanna & Rivkin, 2001). These are argued to lead to the stifling of economic regeneration and moribund industries. Such cross-subsidization is extensively reliant on internal intermediation, where the longevity of investment horizon of the ultimate controlling owner of the BG is at odds with the shorter-term profit horizons of minority investors and resource providers in BG-constituent firms (see Bebchuck, 1999). This leads to tunnelling and the eroding of value in BG

firms from the viewpoint of disenfranchised minority owners (see Dyck & Zingales, 2004; Morck, Wolfenzon, & Yeung, 2005).

Much of the theory underpinning the costs attributed to BGs also provides the basis for the benefits arising from their structure. The efficiency of internal intermediation and coordination of resources across the extended conglomerate structure is attributable to the extensive social trust (Granovetter, 2001) resulting from the shared identity and altruistic “social glue” binding disparate family members (Khanna & Rivkin, 2001; Morck *et al.*, 2005). Furthermore, there is considerable intertwining of individuals inextricably bound with the family, and then between the family itself and the BG. While this develops as a result of the BG being an intergenerational economic asset for the family, affording social welfare, it also leads to a personalization of external relationships based on relational trust, and an emphasis on reputation and brand image. This forms an additional advantage for constituent firms within BGs, where the extended lines of control from the ultimate owner facilitate the exploitation of synergies, leading to economies of scope in constituent firms being able to leverage a common brand and reputation in credible contracting.

As the BG’s organizational form sociologically mirrors the social dimensions of the family and shapes the socio-cultural framework of society, the same traits also shape the appropriateness of social transactions within BGs. Consequently, relational contracting systems derived from the same socio-cultural precepts, such as Ubuntu in traditional African societies (Sarpong, Bi & Amankwah-Amoah, 2016) and Wasta in their Arabian counterparts (Berger, Silbiger, Herstein & Branes, 2015), provide powerful institutionalized support for BGs, both for the appropriateness of this organizational form and for the transactions within and between them. This emphasizes how successful emerging market BGs are able to benefit from a natural fit with societal norms and values.

BG firms often need to supplement internal resources with those obtained externally, either immediately or in future periods (Morck *et al.*, 2005; Masulis *et al.*, 2011). This has spawned a

literature focussing on the financing advantages arising from the organizational form of the BG itself (e.g. Almeida & Wolfenzon, 2006a,b; Masulis *et al.*, 2011), where two rival strategies have been outlined. The first is that of direct financing, where the ultimate controlling owner, usually a family, invests its wealth directly into the constituent firm, which only gains the capital infusion specific to the value of the shareholding (Beña & Ortiz-Molina, 2013). Such direct ownership is argued to be optimal when pledge-ability of cash flows is high, i.e. investor protections are high (Masulis *et al.*, 2011), indicating a lower external cost of capital and enhanced profitability. The controlling family is here motivated to retain dividends and not to share them with additional minorities (Beña & Ortiz-Molina, 2013). In this case, there is no significant pressure on firms to enhance their shareholder value governance protections to outside constituencies, given the reliance on internal resources alone.

The second strategy is that of indirect financing. Here the pledge-ability is low and riskiness of projects is high, leading the ultimate controlling BG owner to reduce direct exposure to the constituent firm and to share these risks and the associated dividends with additional minority stakeholders. However, to accomplish this, the BG's control exercised over the constituent firm needs to exceed that strictly associated with direct ownership entitlements. This action leads to a pyramidal chain (see Volpin, 2002), where the family invests its wealth in a controlling stake in the first firm within the chain, which in turn takes a controlling stake in the next firm within the chain and so on (Beña & Ortiz-Molina, 2013). The firms lower in the chain gain from far more availability of finance than the comparable direct investment in any given firm, by way of their being recipient to the pooled retained earnings across the chain that is under the control of the family.

Despite the inherent benefits from the optimal coordination within internal resource markets, BGs are constrained by their need for additional external infusions of technology, managerial expertise, factors of production, and financial capital. Drawing from institutional theory, we argue

BGs to be at the juxtaposition between international regulatory institutional frameworks associated with global capital markets, and sub-national-level cultural frameworks. The moral legitimacy (Suchman, 1995) of the shape, structure, and transactions within and between BGs is inextricably rooted in the deeper cultural framework from which it needs to attain isomorphic conformity (DiMaggio & Powell, 1983). In this way, legitimacy determines the synergies across BG-constituent firms and their ability to draw on economies in scope in terms of brand and reputation, where this further reinforces legitimacy. This leads BG firms to consider one of two rival governance options in order to facilitate their acquisition of external resources: the adoption of shareholder value corporate governance or more concentrated direct block ownership. Both signal quality and reduce minority bonding costs (Jensen & Meckling, 1976). However, there are costs and benefits associated with each.

We argue that the adoption of shareholder value governance is dependent on the quality of the external contracting environment, where this determines its effectiveness. Weaker formal institutional frameworks, prevalent in many emerging economies, yield minimal institutional support for notions such as the independence of nonexecutive directors, or for financial derivative and bonus contracts where these are central to the design of executive compensation. Furthermore, derivatives and bonuses are closely associated with financial concepts of speculation and arbitrage, which lack moral and pragmatic legitimacy (Suchman, 1995) and are subject to coercive sanction in the form of taboos and religious prohibitions (e.g. Kuran, 2004). Consequently, the adoption of shareholder value governance is susceptible to minority perceptions of it lacking credibility, which undermines its intended reduction of bonding costs. A further pernicious issue is that the adoption of shareholder value protections for minorities' property rights underscores the minority's empowerment, leading to "conflicting voices" within the firm. Such dissent may be seen as being incompatible with the prevailing cultural traits within society, as embedded within the firm through BG ownership. Eventually, this leads to additional costs through a reduction in the control of the ultimate BG controlling owner.

A further culturally based advantage associated with elevated direct block ownership is that it has synergies with religious tenets of risk sharing, such as Islam's emphasis on partnership, which accentuates moral legitimacy (Kuran, 2004). Furthermore, in communitarian societies, it is a socially appropriate means of impeding the dissolution of assets through notions of collective ownership, in accentuating control rights vis-à-vis rival claims arising from within a given ethnic lineage or community (Sarpong *et al.*, 2016). This emphasis on cognitively legitimate solutions to thorny issues within communitarian society results in higher direct ownership, leading to lower dispersion of ownership rights that could generate challenges to control, and hence reduced adoption of shareholder value governance. Besides external investment, higher direct ownership and credible commitment also reduce "relationship agency costs" in contexts where trust plays a role of major facilitator of the exchange of intangible resources, such as information and network connections, between market participants (Bellavitis, Rietveld & Filatotchev, 2020). These arguments associated with emerging market BGs lead us to propose the following *direct financing hypothesis*:

***Hypothesis 1:*** *There is a negative association between a BG's direct ownership in a constituent firm and that firm's adoption of shareholder value corporate governance.*

### **Political economy contingencies**

While we expect that the level of ownership of BGs and their representation on the boards of directors of constituent firms will affect the adoption of shareholder value governance, we also suggest this relationship to be significantly influenced by the structure of the indigenous political economy. Next, we postulate two contingency factors that will likely moderate the main effect. These are the formal institutional quality and the informal tribalism and they constitute largely opposing symmetrical dimensions of the political economy. Each relates to a tension in the ultimate controlling BG owner's maintenance of levels of ownership or board control, at any given level of shareholder value governance adoption.

### *Formal institutional quality*

We argue that moderation by formal institutional quality accounts for diversity in the demographic inclusivity of the underlying polity and the incentive structures embedded within it (North, 1994). Higher formal institutional quality is argued by North (1991, 1994) to be associated with demographically inclusive polities, which have more equitable distributions of political power, wealth, and economic opportunities. Such inclusive polities are politically more representative and inclusive of their broader populations, leading to their increased cognitive legitimacy. This is also reflected in their greater accommodation of the underlying socio-cultural framework, where there is an emphasis on mutual co-existence and trust in transplanted bureaucracy, which follows from a more inclusive political process that shapes the reform of formal institutional frameworks. A direct consequence of stronger external investor protection is the increased pledge-ability of cash flows and assets. This motivates the ultimate controlling owners of BGs to increase their direct ownership in subordinate firms, thereby singularly gaining from the resultant dividends without having to share them with outside minority owners. Furthermore, there is reduced motivation to adopt shareholder value governance where this would increase the number of empowered minority owners with a resulting internalization of conflicting cultural and social goals (see Hoskisson, Hitt, Johnson, & Grossman, 2002) at a cost to the firm and BG as a whole.

Conversely, lower formal institutional quality arises from socially less inclusive polities, whose demographic narrowness is reflective of their hegemonic subversion under handfuls of empowered elites. North (1991, 1994) argues that these elites have significant opportunities to appropriate economic rents from their elevated social status within the colonial-era transplanted bureaucracy. Such elites derive their status from the institutionalized architecture, which also acts to stymie political processes that would otherwise precipitate more equitable reforms. Consequently, such polities are more predatory in nature, while maintaining weaker formal institutional frameworks with reduced protection of minority property rights. This results in reduced cognitive

legitimacy amongst the wider population. The lower pledge-ability of cash flows and increased riskiness are reflected in higher external opportunity costs of capital. Consequently, the ultimate controlling BG owners are more motivated to share these risks and dividends from the subordinate firm with external minorities. This in turn leads to increased attainment of pragmatic legitimacy of external minorities in terms of greater isomorphic conformity with international capital market norms, leading to increasing shareholder value governance adoption. These theoretical arguments lead us to propose for firms in emerging economies the following *formal institutional quality moderation hypothesis*:

***Hypothesis 2: The negative association between a BG's direct ownership in a constituent firm and that firm's adoption of shareholder value corporate governance is negatively moderated by institutional quality.***

### ***Informal tribalism***

Next, we consider moderation by informal tribalism, where this shapes the socio-cultural framework within nation states. Tribalism overcomes shortcomings associated with more limited definitions of ethno-linguistic fractionalization, by explicitly accounting for favouritism, nepotism, and cronyism that are prevalent in tribal institutions. It also addresses deficiencies in frequently used definitions of “national culture” (Tung & Stahl, 2018).

African nation states are well known for having national boundaries that both subvert and dissect multiple indigenous ethnic lineage (tribal) groups. This is an outcome of former predominantly European imperialism, under which boundaries reflected the extent of colonial ambition rather than consideration of the integrity of underlying indigenous societies (Nunn & Wantchekon, 2011). Additional complexity arose from the plethora of tribal groups themselves, originating from distinct overarching ethno-linguistic heritages, such as Bantu and Afro-Asiatic in traditional African societies, or Arab/Berber in Arabian-influenced societies (Moscana, Nunn &

Robinson, 2017). These heritages had universally identifiable incentive structures embedded within their deeper cultural frameworks, which were inherently communitarian. They also provided the fundamental basis for relational contracting systems, such as Wasta (e.g. Barnett *et al.*, 2013; Berger *et al.*, 2015) and Ubuntu (Sarpong *et al.*, 2016), whose prominence mirrors their inextricable embeddedness within culture. The incentives within the overarching communitarian heritage led to relational contracting, emphasizing a largely benign balance between inward-looking tribal loyalties on the one hand and outward-looking intercessory or intermediary behaviours towards resource acquisition and conflict resolution on the other hand. However, dissection and subversion of such communitarian heritage, under superimposed national frontiers and notional national polities, led to the erosion of its former intermediation character, with a transition to the incentive structures associated with the demographically narrow polity (Barnett *et al.*, 2013). Collectively, these arguments emphasize the importance of transitions in overarching incentive structures.

Consequently, we argue that high tribalism is an outcome of the erosion of formerly benign communitarian incentive structures, corrupted through the institutionalized loyalties embodied in relational contracting that is now acting to support those loyalties within the context of demographically narrow national polities. This promotes the hegemonic power of individuals or family over a polity through warped notions of community altruism, promoting nepotism and favouritism (Barnett *et al.*, 2013), while reducing cognitive legitimacy. Such corruption is visible in ranging from outright extortion to lesser forms of appropriation such as bribery and kickbacks (Heidenreich, Mohr & Puck, 2015). However, this also manifests in increasing notions of the exploitation of mutual community co-ownership of assets, with this increased emphasis undermining the potential of higher direct ownership of assets to deter such claims. Equally, it reinforces weaknesses in the formal institutional architecture's level of investor protection, leading to reduced pledge-ability of assets and increased riskiness of ventures, leading to higher external opportunity costs of capital (Beña, Ortiz-Molina, 2013). This leads to the ultimate controlling BG owners being more motivated to share these risks, and any dividends, with outside minority

resource providers in order to overcome shortfalls in internal resource provision (Masulis *et al.*, 2011). Furthermore, and given the elevated risks from tribalism associated with concentrated direct ownership alone as a means of providing assurance of credible commitment, BG firms adopt shareholder value governance.

Conversely, low tribalism implies broader and more socially inclusive polities and a more effective political system for reforming the formal institutional architecture. These characteristics also imply an emphasis on co-existence with potentially incongruous traditional socio-cultural frameworks, which inform the reform of the formal architecture through socially inclusive political process. This implies greater trust in formal institutions, and less favouritism and cronyism, reflected in increased pledge-ability of cash flows and higher investor protection. Institutionally, this acts to motivate BGs to seek legitimacy from the socio-cultural context by attaining isomorphic conformity with a governance model based on concentrated control and ownership vis-à-vis shareholder value governance. Consequently, under progressively lower levels of tribalism, BG-constituent firms adopt less shareholder value governance. Our theoretical arguments lead us to propose for firms in emerging economies the following *tribalism moderation hypothesis*.

***Hypothesis 3: The negative association between a BG's direct ownership of a constituent firm and that firm's adoption of shareholder value corporate governance is positively moderated by tribalism.***

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

**Insert Figure 1**

**DATA**

To study the interplay between formal and informal institutional environments and their influence on the co-optation of the indigenous political economy's social elites by BG-constituent firms, we focus on IPOs in African countries. We chose to study IPO firms since transparency and reporting are optimal among such firms in a region characterized by generally underdeveloped financial markets and related institutions, such as those prevalent in developing economies. Consequently, a firm's subsequent compliance with listing standards in practice is questionable given paucity in enforcement as well as weaknesses in institutional environments.

The dataset was constructed in four stages. The first was to gather a comprehensive list of all African stock markets and to then omit those not to be included in the study. Omissions include the Libyan stock exchange, which after a short period of operation has been closed since the civil war in 2011, the stock exchanges of Angola (Bolsa de Dívida e Valores de Angola), Lesotho (Maseru securities exchange) and the Francophone central African community in Gabon (Bourse des Valeurs Mobilières de l'Afrique Centrale), which have failed to attract any equity listings since inception, and Sudan (Khartoum stock exchange), which is largely inaccessible owing to international sanctions. We have also omitted the Somali stock exchange, where the two listings fall outside of our sample period, and there are similar restrictions to those in Sudan, as well as Zimbabwe, where only a handful of new listings took place during our sample time period and accessibility has been severely restricted owing to a combination of international sanctions and stagflation to such a degree that the national currency has been disbanded altogether in favour of US\$.

The second stage involved the compilation of a list of IPOs between January 2000 and August 2016, as identified in African markets. These include Algeria, Egypt, Morocco, Tunisia, Cape Verde Islands (Bolsa de Valores de Cabo Verde), Cameroon (Bourse de Douala), BRVM (Cote d'Ivoire), Sierra Leone, Malawi, Kenya, Uganda, Rwanda, Tanzania, Seychelles, Zambia, Namibia, Botswana, Mozambique, Mauritius, Nigeria, Ghana, and South Africa. Our primary

source here was the national stock exchanges and their associated websites. This resulted in a preliminary population of 380 stock listings.

At the third stage, to ensure that our population covered IPOs and not private placements, the IPO prospectuses were obtained. The IPOs included are offerings that produce a genuine diversification of ownership amongst 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 of 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 fourth stage, we focussed 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. Notably, both observations from Cameroon were omitted at this stage, since both are joint venture entities between the state and a foreign MNE, their listings in effect being privatizations. This brought the total 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 eight firms, missing values for the number of shares issued to foreign investors for two firms, and missing executive tenure values for a further two firms, resulting in a final sample of 189 IPOs. The 12 missing observations were evenly distributed through 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 in the case of the Seychelles and Cameroon they were sourced from the exchange websites. 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 relevant to listings from annual reports. These sources are listed in Appendix Table 1.

## METHODOLOGY

### *Dependent variable*

To focus on shareholder rights governance, we have developed a new firm-level index, adapted from the provisions outlined in the New York Stock Exchange manual (NYSE, 2016). This is formed from the equally weighted average of 16 elements (1-16 in Table 1, with definitions in Appendix Table 1), which are identified from each individual firm's listing prospectus. All elements are binary coded, and for the final sixteenth element relating to nonexecutive director independence we adopt two variants, which lead to two final shareholder rights indices. The first equals one if at least one independent nonexecutive director is present on the board, while the second equals one if there is a minimum proportion of 50% independent nonexecutive directors on the board. The final index is continuous and ranges from zero to one.

The construction of such a firm-level index addresses a number of shortfalls<sup>1</sup>. Much of the prior literature on shareholder rights relates to the anti-director (i.e. pro-minority property rights) index developed in the seminal work of La Porta, Lopez-de-Silanes, Schleifer, & Vishny (1998). However, this is restricted to provisions in the overarching national legal codes as opposed to relating to individual firms. More recently, to address this shortfall, Gompers *et al.* (2003)

introduced the “G-index”, comprised of 24 governance provisions, of which only 22 were firm-level, a further limitation being that it only applied to the US setting. While this was superseded by a smaller “E-index” of Bebchuck, Cohen, & Ferrell (2009), our construction of a shareholder rights index introduces a parsimonious construct that captures the protection of minority owners’ property rights within a much broader remit of emerging and developing economies.

The 16 elements within the new shareholder rights index provide a tractable measure of governance that accounts for data limitations. This is exemplified by a wholesale lack of regulated financial derivatives markets and pension scheme coverage in many emerging economies, which curtails governance elements relating to executive compensation and some golden parachute and poison pill anti-takeover provisions. Also omitted are clauses related to mechanisms such as greenmail, which are a reflection of the significantly less developed capital markets and weaker regulation prevalent in emerging economies.

### **Insert Table 1**

#### ***Explanatory variables***

Our study uses the percentage cash flow ownership of BGs and their affiliates in IPO firms as the main effect outlined in *Hypothesis 1*. This is in line with studies such as Carney, Shapiro, & Tang (2009) and Hu, Cui & Aulakh (2019). Following Masulis *et al.* (2011), we trace ultimate owners, and then define a BG as two or more nominally independent firms under the control of a common ultimate owner. Such identification is consistent with prior BG literature (e.g., Khanna & Palepu, 2000; Khanna & Yafeh, 2005; Singh & Gaur, 2009).

As a robustness measure, we also adopt the ratio of BG representatives on the board of directors, since a prominent feature of BGs is control rights in excess of cash flow ownership entitlements. This provides a means to circumvent thorny issues in the family literature, where there

is a general reliance on the definition of a family-controlled firm as being at a threshold percentage of ownership, typically 20% or more liberally 10%, with such a restrictive definition failing to take account of wedges between direct ownership and control. This is particularly pertinent given our focus on the contrast between direct and indirect pyramidal financing strategies, and a sliding scale of direct cash flow ownership in relation to progressively elevated control being central to our theoretical model.

### *Moderating variables*

We follow Kim, Hoskisson, & Wan (2004) in including two indices, accounting for formal and informal institutions, to moderate our main effect variable of BG ownership, with these being centred and normalized in order to mitigate the potential effects of collinearity. These correspond to *Hypotheses 2 and 3*.

### *Formal institutional voids*

To operationalize our moderating variable for formal institutional quality, we use the arithmetic average of the six World Governance Indicators (WGI), as developed by Kaufman, Kraay, & Mastruzzi (2009), which are formed from national survey data from each country. These six dimensions are (1) Voice and Accountability; (2) Political Stability and Absence of Violence/Terrorism; (3) Government Effectiveness; (4) Regulatory Quality; (5) Rule of Law; (6) Control of Corruption<sup>ii</sup>. These are already standardized (Beugelsdijk, Ambos & Nell, 2018) but we rebase each on a scale of zero to one before averaging the six to provide an aggregate formal institutional quality measure.

### *Informal institutions - tribalism*

Our second moderating variable is that of informal tribalism, which uses the measure from Jacobson & Deckard (2012). The index is on a scale of zero to one and, though it is sourced from Jacobson & Deckard (2012), is parsimonious in being easily reproduced from the underlying data. This is defined in expression (2) below:

$$\begin{aligned} \textit{Tribalism} = & \textit{Corruption measure} + 0.5 * \textit{Ethnic fractionalization} + 0.5 \\ & * \textit{Indigenous population} + 2 * \textit{Gender equality} \\ & + \textit{Group grievance} \end{aligned} \tag{2}$$

The *corruption measure* refers to the corruption perceptions index (CPI) published annually by Transparency International<sup>iii</sup>. This is constructed from survey participants' perceptions of corruption and provides a means of accounting for the impact of nepotism, favouritism, and cronyism in preferentially facilitating transfers between kinship, clan, and tribal groups.

*Ethnic fractionalization* is sourced from Alesina et al. (2003). Measurement of ethnic fractionalization itself is fraught with complexity. The first comprehensive attempt to develop a metric effective worldwide was undertaken in 1964 by a team of Soviet ethnographers and documented in *Atlas Narodov Mira* (Fearon, 2003; Luiz, 2015). This metric formed the basis of ethnic fractionalization used in Easterly & Levine's (1997) study of how ethnicity constrained African development. It was subsequently updated in 2001 by Encyclopaedia Britannica and formed the basis of a Herfindahl index of ethnic diversity used in Fearon (2003) and the metrics of ethnic, linguistic, and religious fractionalization developed by Alesina *et al.* (2003). These are exemplified in the African context in Appendix Table 4. Measurement of ethnicity is itself acutely sensitive to definitions of the level at which to distinguish between rival groups – be this at the ethnic lineage (tribal) level or at the subordinate clan level (see Fearon, 2003; Alesina *et al.*, 2003). Similar complexity is associated with the differentiation of linguistic fractionalization in accordance with language families, and the time frame of their evolution. Alesina's fractionalization measures, as used in this study, were developed using definitions by Encyclopaedia Britannica and augmented by the CIA World Factbook, World Directory of Minorities, and national census data.

*Indigenous population* is the percentage of the population that is indigenous in origin, with data on demographic variables such as ancestry, ethnicity, language, and religion sourced from the CIA World Factbook online<sup>iv</sup>. Jacobson & Deckard (2012) argue that it is important to “counter-balance” fractionalization with the proportion of citizens whose ancestral origins are native to the country. This is exemplified in the US where fractionalization is high while the native population is low, which leads to a medium score for this dimension. Conversely, in Pakistan, there is both high fractionalization and an equally high native population, which leads to a high score.

*Gender equality* is taken from the Gender Gap Index, published annually by the World Economic Forum<sup>v</sup>. This captures persistent socio-cultural gender differences within a given society, which occur at any level of human development, differentiating its use from the more commonly used Gender Development Index, which is itself a revision of the Human Development Index. It examines the gap between men and women in four fundamental categories: economic participation and opportunity, educational attainment, health and survival, and political empowerment. These dimensions are important since there are markedly lower differences in gender attainment in areas such as education and health, while there are huge gaps in labour markets and pay, as well as in political realms (see Jacobson & Deckard, 2012).

*Group grievance* is one of ten dimensions intrinsic to the Fragile States Index published by the Fund for Peace<sup>vi</sup>. 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 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 the support or participation of government groups, and institutionalized political exclusion.

As a descriptive exercise, these variables are displayed per market across the African sample in Table 2. There are some notable observations. The first is that ethnic fractionalization is

extremely low across North Africa, yet extremely high across much of SSA. While these extreme differences in diversity have been cited previously (e.g. Nunn & Wantchekon, 2011; Moscana *et al.*, 2017), this reveals a critical limitation in the universal application of measures based on ethno-linguistic fractionalization. Contrastingly, this extreme variation is offset by the generally high gender inequality, which has a double weighting, and to a lesser extent by the lower-weighted measures of corruption, the proportion of population that is indigenous and group grievance. This issue of extremely high ethnic fractionalization in SSA, alongside the extreme variation throughout Africa, including North Africa, also underscores the utility of the region for testing new measures whose efficacy is based on their generalizability. As a final exercise, we undertake a comparison of WGI formal institutional quality and the tribalism index, which are provided for a comprehensive, worldwide sample of countries in Appendix Table 5.

### **Insert Table 2**

#### ***Control variables***

We adopt four sets of control variables. *Environmental controls* comprise, first, of a binary effect accounting for English common law jurisdictions as opposed to their civil code law counterparts. This not only accounts for documented differences in legal and juridical philosophy between the two overarching legal families, with common law emphasizing jurisprudence while civil code relies on state legislators and “bright line” rules, but also for more reaching cultural differences, whereby civil code parallels the Dirigiste (state-led) capitalist model. In the African context, civil code law includes both the French and Portuguese legal systems. Second, we control for income and wealth inequalities through the inclusion of the natural logarithm of a jurisdiction’s GDP per capita, denominated in US\$.

*Board controls* account for firm-level variations. The first is logarithmically transformed board size, defined as the total number of both nonexecutive and executive directors, which

accounts for size-related differences in board communication and effectiveness in decision making as well as free-riding (Boyd, 1994), while at same time accounting for the need to accommodate more diverse environmental contingencies through the co-optation of directors, such as those from the extended family and important stakeholders (Khanna & Yafeh, 2007). The second is the logarithmically transformed average executive tenure, which accounts for entrenchment effects impinging on optimality in executive risk taking and decisions. The third is the board independence ratio – defined as the proportion of independent nonexecutives on the board, which accounts for the separation between nonexecutives and their executive counterparts in terms of optimal monitoring (Jensen & Meckling, 1976). The fourth is a binary effect, accounting for the entrepreneurial founder being retained as CEO as opposed to their succession being initiated. This accounts for the longevity of the founder’s investment horizon and the upper-echelon culture-setting altruism of the founder, together with their social capital derived through personal networks acting as a critical resource for the firm (Hearn & Filatotchev, 2019). The fifth is the ratio of directors drawn from social elites within indigenous political economies to total board size. This captures the degree to which indigenous social elites have been co-opted on to the board of directors (e.g. North, 1991, 1994). These are defined as senior roles in government, commerce, and civil society and sourced from the director biography sections of annual reports.

*Firm controls* are drawn from prior empirical governance studies (Sanders & Carpenter 1998; Finkelstein & Boyd, 1998). We use the natural logarithm of a firm’s pre-tax revenues (or sales) as a proxy for size, assumed to control for the complexity of the firm’s operations and thus mirroring the complexity of the task environment, which in turn is reflective of enhanced need for adoption of shareholder value governance in order to successfully cope with increasing information-processing requirements and complexities in decision making. We adopt the accounting return on assets (ROA) as a measure of firm performance, in line with Finkelstein & Boyd (1998). We also control for firm age, with older firms anticipated to have larger, more complex operations mirroring more complex task environments. It also accounts for the “liability of newness” and the

considerable information asymmetries generated by a lack of operational and performance history (Arthurs, Hoskisson, Busenitz, & Johnson, 2008). Finally, we adopt a capital control with the ratio of debt to total assets, which is the total long and short-term liabilities divided by the total asset value of the firm, and provides a measure of the gearing or leverage of the employment of debt. This avoids potential issues with relating debt directly to equity due to equity's variability over the business cycle (see Bruton, Filatotchev, Chahine, & Wright, 2010).

Finally, we adopt *IPO controls*, the first being the ratio of shares offered at IPO to total shares issued and outstanding, both obtained from the appendices of financial statements. This captures the degree of dilution in insider ownership and control during the IPO process and accounts for the diversification of the ownership structure of the firm, which necessitates increased governance protections for minority property rights. The second is a binary effect accounting for whether the lead manager handling the listing process is foreign, which accounts for the lead manager's familiarity with overseas regulatory regimes and awareness of minority property rights protections through shareholder value governance adoption.

### **Empirical model**

To test our hypotheses, we adopt pooled OLS models with random effects applied to the cross-section (between firms). Three sets of regression models are estimated, with the first solely having as explanatory variable the proportion of BG ownership. The second corresponds to our first moderating hypothesis, concerning moderation by formal institutional quality. The third then corresponds to our second moderating hypothesis, concerning moderation by informal tribalism. These tests correspond to our hypotheses.

We do not include additional country binary fixed effects since their addition would lead to perfect collinearity with both formal institutional quality and the common law binary legal control.

Hence, this way, we avoid falling into the dummy variable trap (Wooldridge, 2009)<sup>vii</sup>. Industry and time (year) fixed effects are applied across all models. Industry definitions vary by country, while compliance with ISIN and SEDOL industry category codification is not universal across the continent, reflecting the underdeveloped nature of financial institutions. Consequently, we follow Khanna & Rivkin (2001) in handling similar issues; that is, we adopt Bloomberg's basic industry definitions<sup>viii</sup>. Errors are cluster-robust in terms of countries.

## EMPIRICAL RESULTS

### **Bivariate analysis**

Correlations between variables are low and statistically insignificant for the most part (Table 3). A sole exception is -0.806 between our two moderating variables, formal institutional quality and the tribal index. Further inspection of the variance inflation factors for all independent variables reveals that all are below 10, while the mean variance inflation factor for all independent variables together is 2.89 and mitigates concerns over multicollinearity. However, in order to mitigate concerns over our institutional indices being included in models twice during the moderation of the independent variables, we centre and normalize both metrics and separately include the formal and informal indices. The variance inflation factors for both institutional quality and the tribal index are acceptable, being below 4.80.

### **Insert Table 3**

### **Multivariate analysis**

The empirical evidence regarding the *main effect* is consistent across models 2 to 4. However, following its sole inclusion in model 2, there is a large, negative, and statistically significant association between BG ownership and the (non)adoption of shareholder value governance. This

strongly supports *Hypothesis 1*. This result has economic significance too, with a one percentage point change in BG ownership leading to an 7.1% decrease in shareholder value governance adoption.

Our evidence regarding the moderation of our main effect by formal institutional quality comes from model 3. Here, the main effect between BG ownership and shareholder value governance adoption ( $-0.067, p = 0.028$ ) is further negatively moderated by formal institutional quality ( $-0.066, p = 0.027$ ). This is consistent in supporting *Hypothesis 2*. In terms of economic significance, moderation causes an amplification of the main effect, whereby, if the IPO firm is located in a high (as opposed to low) quality formal jurisdiction, then a one percentage point change in BG ownership causes a 13.3% decrease in the (non)adoption of shareholder value governance.

Finally, our evidence regarding the moderation of our main effect by informal tribalism can be seen in model 4. Here, the main effect between BG ownership and shareholder value governance adoption ( $-0.076, p = 0.038$ ) is positively moderated by informal tribalism ( $+0.061, p = 0.052$ ). This supports *Hypothesis 3*. In terms of economic significance, the moderation causes the main effect to be offset by the firm being located in a high (as opposed to low) tribal framework. This leads to a one percentage point change in BG ownership causing a smaller (1.5%) decrease in the (non)adoption of shareholder value governance.

The empirical evidence regarding the association of the controls with the dependent variable is consistent across all models. In terms of institutional controls, a firm's adoption of shareholder value governance is associated with higher formal institutional quality, common law jurisdictional heritage, and higher GDP per capita. For the relation between the board controls and the dependent variable there is support for a positive association between a higher ratio of nonexecutives on board and the adoption of shareholder value governance. In terms of firm controls, shareholder value governance adoption is associated with higher firm gross revenues, indicative of greater complexity of task environments and a necessity to adopt formalized governance structures in order to attain

legitimacy in various differentiated product markets. In terms of IPO controls, counter-intuitively, shareholder value governance adoption is associated with lower dispersion of shares offered in proportion to total shares outstanding. This is explained by deep-seated inhibitions over dilution of control and detrimental conflict being introduced into the firm through “conflicting voices” of minority owners who are also empowered by shareholder welfare protections in the firm’s own governance framework. Finally, firms adopt shareholder value governance when the lead managers assisting in their flotations are foreign, which emphasizes the importance of isomorphic conformity and pragmatic legitimacy associated with appropriate notions of governance in international capital markets.

The diagnostic statistics associated with all four models reveal there is a consistent increase in overall adjusted  $R^2$  explanatory power, as well as in the Wald  $\chi^2$  statistics, from model 1 which considers controls only, to the progressive addition of, first, BG ownership (model 2), then its moderation by formal institutional quality (model 3), and then tribalism (model 4). This observation provides support for the strength of the effects of both formal institutional quality and tribalism as moderators of the association between BG ownership and the BG constituent firm’s shareholder value governance adoption.

#### **Insert Tables 4 and 5**

As a final support for our findings, using model parameter estimates, we input a range of values for BG ownership alongside, first, formal institutional quality, and then informal tribalism indices, to produce two three-dimensional probability surfaces with respect to the likelihood of shareholder value governance adoption. As seen in Figures 1 and 2, their probability surfaces substantiate the underlying empirical evidence inasmuch as formal institutional quality and tribalism have equal and opposing moderating influences on BG ownership’s association with firm adoption of shareholder value governance.

## **Insert Figures 1 and 2**

### **Supplementary and robustness tests**

In order to test the robustness of our initial results, we undertake further empirical modelling exercises. The first involves the replacement of our main effect, BG ownership, with the ratio of BG representation on the board of directors, and applying random effects OLS regressions, where we obtain qualitatively identical results. This outcome confirms that the degree of control leveraged over boards of directors of BG-constituent firms is in line with the ultimate controlling owners' direct ownership entitlements.

Next, as our second robustness test, we create four ordinal categories for shareholder value governance adoption, namely the brackets 0%–25%, 26%–50%, 51%–75%, 76%–100%. We repeat this exercise twice, initially for the shareholder value index based on the inclusion of at least one independent nonexecutive, and then for the one based on a minimum of 50% independent nonexecutives. Consequently, we have two sets of four statistical brackets of shareholder value adoption. At this stage, we undertake three series of tests with a variety of empirical models. The first uses as the dependent variable the shareholder value index based on one independent nonexecutive, with the explanatory variable, first, being BG ownership, and then being the ratio of BG representatives on the board of directors. Then, the third and final series has as the dependent variable the index based on 50% independent nonexecutives, and BG ownership.

This new set of measures based on an ordinal scale leads to the use of a hierarchical mixed-effects ordered probit model. Here, the interpretation of coefficients is in terms of the association between any independent variable and the likelihood of attainment of the highest (76%–100%) bracket as opposed to the alternative three lower brackets of shareholder value governance adoption. The empirical results using both variants of shareholder value index and both BG

ownership and the ratio of BG representatives on the board of directors support the maintenance of all our hypotheses, while the associations between the controls and the dependent variable are in line with those of the main analysis.

Our third robustness test involves a hierarchical linear Poisson count model, which addresses shortcomings in terms of informational loss in probit models and potential alternative modelling specifications arising from our dependent variable. A critical assumption within the Poisson count model is that firms' decision making over the number of governance provisions they adopt is completely independent of one another. The results using both variants of shareholder value index and both BG ownership and the ratio of BG representatives on the board of directors largely corroborate all of our prior results from the main analysis.

Finally, our fourth robustness test is that of a marginal effects analysis in respect of the preceding ordered probit models (also undertaken as robustness tests). This involves the application of hierarchical OLS regressions with the four statistical observation brackets as our dependent variable. The results using both variants of shareholder value index and both BG ownership and the ratio of BG representatives on the board of directors reveal directions and proportionate absolute sizes of coefficients of association qualitatively the same as those of the preceding ordered probit models.<sup>ix</sup> The adjusted R<sup>2</sup>s are generally high and over 20% across all models, except in the case of moderation by formal institutional quality.

## **DISCUSSION**

In this study, we argue that the financing strategies of emerging market BGs are underexplored, when considering the adoption of corporate governance under different institutional regimes. Here, we focus on African IPO firms and on the association between a BG's ownership participation in a BG-constituent firm and the constituent firm's degree of adoption of shareholder value governance.

In accordance with our expectations, we find both the higher direct BG ownership and the increased BG representation on the board of directors of the BG-constituent firm to be associated with progressively lower adoption of shareholder value governance. Conceptually, this is intuitive since, despite wielding optimal internal coordination, BGs face resource constraints and therefore need to supplement those internally available with external acquisitions. We argue that these limitations drive BGs to reduce the bonding costs by providing assurance of credible contracting to external minority resource providers, with such measures mitigating adverse selection and inhibiting moral hazard. This leads to BGs adopting one of two corporate governance strategies. The first is that of higher concentration of direct ownership by the ultimate controlling BG owner, while the second is the adoption of shareholder value governance. Both confer substantial costs on the BG firm, which signals value to minority shareholders. However, the former conveys legitimacy through isomorphic conformity with the deeper socio-cultural framework, while the latter strategy conveys legitimacy with international capital market norms through progressive isomorphic conformity with the shareholder value governance model.

Our findings challenge the neoclassical concept of global “convergence” to a dominant shareholder value model (e.g. Coffee, 1999, 2001) and support the contextual approach of the comparative corporate governance literature (e.g. Aguilera & Jackson, 2010; Bell, Filatotchev, Aguilera, 2014). Consequently, this underscores a unique perspective of corporate governance, wherein improvements in shareholder welfare are not motivated so much in terms of deficiencies in the external contracting environment, but rather from a need to supplement dominant internal capital intermediation.

Empirically, we have extended this underlying association between BGs and shareholder value governance adoption through moderation by two institutional metrics capturing formal institutional quality and informal tribalism. We claim they reflect opposing dimensions of the national polity, where, in accordance with the seminal views of Douglass North (1991, 1994), the

quality of formal institutional architecture is an outcome of the demographic structure of polity, while we argue that informal tribalism fundamentally shapes it. Empirically, tribalism is particularly useful in providing a dynamic measure to circumvent the more static ethnic fractionalization metric, which notably fails to capture sociological traits within and between tribal or ethnic lineage groups, such as grievances and gender-related inequalities. Furthermore, the dynamic nature of tribalism incorporates serious shortcomings in the conventional IB literature, where culture is considered at an aggregate “national” level that fails to account for frequent schisms within national frontiers.

The strategic choice of corporate governance by the BG is related to the demographic context of the legitimacy sought, which enables resource acquisition. We argue that high formal institutional quality is an outcome of a more socially inclusive polity, defined by a dynamic political process which provides a vehicle through which indigenous populations, governed by deeper informal socio-cultural frameworks, can affect equitable reform in their formal institutional architecture. Thus, even in the presence of incongruities between informal and formal institutional frameworks, a lack of tribal rivalries that would otherwise detrimentally impede the political reform process underscores a co-existence between such frameworks. This type of jurisdiction provides improved investor protections and hence supports increased pledge-ability of cash flows and assets. However, a combination of financial factors such as lower cost of capital and enhanced profitability through dividends motivates BGs to emphasize legitimacy and isomorphic conformity with the informal socio-cultural framework. This results in higher concentrated ownership as governance, and lower shareholder value adoption, with the higher ownership promoting control and inhibiting rival extended familial claims on profitable assets, in conjunction with powerful notions of mutual reciprocity.

Conversely, we argue that low formal institutional quality is an outcome associated with the corruptive influence of tribalism, which is associated with institutionalized relational contracting systems. Here, intense tribal loyalties underscore the “capture” of national polities, with political

processes subverted under the hegemonic control of, at most, a handful of tribal groups. Resulting nepotism and favouritism promote weaker investor protections and reduce pledge-ability of cash flows, owing to elevated risks of appropriation. Under such circumstances, BGs needing resource supplements cannot rely on the indigenous socio-cultural frameworks, with a consequence that they seek legitimacy from international capital market norms, entailing isomorphic conformity with shareholder value governance.

Our study has a number of limitations. The first is that it only considers IPO firms, a particular issue being that the publication of firm data tends to be better in flotation documents than in questionably enforced ongoing listing commitments. It would be useful, data limitations notwithstanding, to extend our study across all African listed firms. The second is that, given our findings from the new tribal index, and our new approach regarding BG financing strategy, it would be useful to extend the study to emerging economies worldwide.

As a final note, such consideration of local political economy has already shaped recent work by Parente, Ke, Geleilate & Misati (2019) in respect of strategies adopted by Chinese MNEs in the Democratic Republic of Congo within central Africa. However, there is scope for more consideration of the implications of cultural heterogeneity and multicultural environments, and their influence on the demographic shape and structure of indigenous political economies, with this exerting a profound influence on the contracting environment.

## **CONCLUSIONS**

Our study proposes two rival corporate governance adoption strategies in BGs, motivated by the need for additional external financing to supplement that available internally. It proposes a new approach to rationalizing corporate governance adoption within emerging economies, this being contingent on the external institutional framework from which legitimacy is sought. Our empirical

analysis reveals a significant negative relationship between BG ownership and IPO firms' quality of corporate governance, and this relationship is found to be significantly negatively moderated by country-level institutional quality, and positively by indigenous tribalism.

The result adds to the understanding of barriers to a convergence towards one global uniform corporate governance model. The study should encourage policymakers to consider the contextual embeddedness of corporate governance arrangements and the interdependence of formal institutional architecture with informal tribalism - both fundamentally associated with the demographic shape and incentive structures embedded within the underlying national political economy - when forming new policies.

## REFERENCES

- Aguilera, R. V., & Jackson, G. 2010. Comparative and international corporate governance. *Academy of Management Annals*, 4(1): 485–556.
- Alesina, A., Devleeschauwer, A., Easterly, W. Kurlat, S. & Wacziarg, R. 2003. Fractionalization. *Journal of Economic Growth*, 8(2): 155–194.
- Almeida, H. V., & Wolfenzon, D. 2006a. A theory of pyramidal ownership and family business groups. *The Journal of Finance*, LXL (6): 2637-2680.
- Almeida, H. V., & Wolfenzon, D. 2006b. Should business groups be dismantled? The equilibrium costs of efficient internal capital markets. *Journal of Financial Economics*, 79: 99-144.
- Arthurs, J., Hoskisson, R., Busenitz, L., & Johnson, R. 2008. Managerial agents watching other agents: multiple agency conflicts regarding underpricing in IPO firms. *Academy of Management Journal*, 51: 277–294.
- Barnett, A., Yandle, B., & Naufal, G. 2013. Regulation, trust, and cronyism in Middle Eastern societies: The simple economics of “wasta”. *The Journal of Socio-Economics*, 44: 41-46.
- Bebchuck, L.A., 1999. Rent protection and the evolution of a firm's ownership structure. Unpublished working paper. Harvard University, *mimeo*.
- Bebchuck, L., Cohen, A., & Ferrell, A. 2009. What matters in corporate governance. *Review of Financial Studies*, 22: 783-827.
- Bell G, Filatotchev I, & Aguilera R. 2014. Corporate governance and investors' perceptions of foreign IPO value: An institutional perspective. *Academy of Management Journal*, 57(1): 301-320.

- Bellavitis C, Rietveld J, & Filatotchev I. 2020. The effects of prior co-investments on performance of venture capital syndicates: A relational agency perspective. *Strategic Entrepreneurship Journal* forthcoming. <https://doi.org/10.1002/sej.1320>.
- Beña, J., Ortiz-Molina, H. 2013. Pyramidal ownership and the creation of new firms. *Journal of Financial Economics*, 108:798-821.
- Berger R, Silbiger A, Herstein R, & Branes B. R. 2015. Analyzing business-to-business relationships in an Arab context. *Journal of World Business*, 50: 454-464.
- Beugelsdijk, S., Ambos, B., & Nell, P. C. 2018. Conceptualizing and measuring distance in international business research: recurring questions and best practice guidelines. *Journal of International Business Studies*, 49: 1113-1137.
- Boyd, B. K. 1994. Board control and CEO compensation. *Strategic Management Journal*, 15(5): 335-344.
- Bruton, G. D., Filatotchev, I., Chahine, S., & Wright, M. 2010. Governance, ownership structure, and performance of IPO firms: The impact of different types of private equity investors and institutional environments. *Strategic Management Journal*, 31: 491-509.
- Carney, M., Shapiro, D., & Tang, Y. 2009. Business group performance in China: Ownership and temporal considerations. *Management and Organization Review*, 5(2): 167–193.
- Certo ST. 2003. Influencing initial public offering investors with prestige: signalling with board structures. *Academy of Management Review*, 28, 432-446.
- Claessens, S., Djankov, S. & Lang, L. H. P. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics*, 58: 81-112.
- Coffee, J. C., 1999. The future as history: The prospects for global convergence in governance and its implications. *Northwestern University Law Review*, 93: 641–708.

- Coffee, J. C., 2001. The rise of dispersed ownership: The roles of law and the state in the separation of ownership and control. *The Yale Law Journal*, 111: 1-82.
- DiMaggio, P., & Powell, W. 1983. The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48: 147-160.
- Dyck, A, & Zingales, L. 2004. Private Benefits of Control: An International Comparison. *The Journal of Finance*, 59(2): 537-600.
- Easterly, W., & Levine, R. 1997. Africa's Growth Tragedy: Policies and Ethnic Division. *Quarterly Journal of Economics*, 112: 1203-1250.
- Fearon, J. D. 2003. Ethnic and cultural diversity by country. *Journal of Economic Growth*, 8(2): 195-222.
- Finkelstein, S., & Boyd, B. K. 1998. How much does the CEO matter? The role of managerial discretion in the setting of CEO compensation. *Academy of Management Journal*, 41: 179-199.
- Fogel, K. 2006. Oligarchic Family Control, Social Economic Outcomes, and the Quality of Government. *Journal of International Business Studies*, 37(5): 603-622.
- Forbes, 2020. Africa's Billionaires: The list. <https://www.forbes.com/africa-billionaires/list/#tab:overall> Accessed 12 May 2020.
- Gompers, P., Ishii, J., & Metrick, A. 2003. Corporate governance and equity prices. *Quarterly Journal of Economics*, 118(1): 107-155.
- Granovetter, M. 2005. Business groups and social organization. In *The Handbook of Economic Sociology*, Second Edition, ed. N. Smelser and R. Swedberg. Princeton Univ. Press, 429-50.
- Hearn, B., Oxelheim, L., & Randøy, T. 2018. The institutional determinants of private equity involvement in business groups - The case of Africa. *Journal of World Business*, 53: 118-133.

- Hearn, B., & Filatotchev, I. 2019. Founder retention as CEO at IPO in emerging economies: The role of private equity owners and national institutions. *Journal of Business Venturing*, 34(3): 418-438.
- Heidenreich, S., Mohr, A., & Puck, J. 2015. Political strategies, entrepreneurial overconfidence and foreign direct investment in developing countries. *Journal of World Business*, 50(4): 793-803.
- Hoskisson, R.E., Hitt, M.A., Johnson, R.A., & Grossman, W., 2002. Conflicting voices: The effects of institutional ownership heterogeneity and internal governance on corporate innovation strategies. *Academy of Management Journal*, 45: 697-716.
- Hu, H. W., Cui, L., & Aulakh, P. S. 2019. State capitalism and performance persistence of business group-affiliated firms: A comparative study of China and India. *Journal of International Business Studies*, 50: 193-222.
- Jacobson, D., & Deckard, N. 2012. The tribalism index: Unlocking the relationship between tribal patriarchy and Islamist militants. *New Global Studies*, 6(1): 1-16.
- Jensen, M. C., & Meckling, W. 1976. Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3: 305-360.
- Kaufman, D., Kraay, A., & Mastruzzi, M. 2009. *Governance Matters VIII: Governance Indicators for 1996-2008*. Washington: World Bank Policy Research Unit, June.
- Khanna, T., & Palepu, K. 2000. Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *The Journal of Finance*, 55(2): 867-891.
- Khanna, T., & Rivkin, J. W. 2001. Estimating the performance effects of business groups in emerging markets. *Strategic Management Journal*, 22: 45-74.
- Khanna, T., & Yafeh, Y. 2007. Business groups in emerging markets: Paragons or Parasites? *Journal of Economic Literature*, 45(2): 331-372.

- Kim, H., Hoskisson, R., & Wan, W. 2004. Power dependence, diversification strategy, and performance in keiretsu member firms. *Strategic Management Journal*, 25(7): 613-636.
- Kuran, T. 2004. Why the Middle East is economically underdeveloped: historical mechanisms of institutional stagnation. *Journal of Economic Perspectives*, 18(3): 71-90.
- La Porta, R., Lopez-de-Silanes, F., Schliefer, A., & Vishny, R. 1998. Law and Finance. *Journal of Political Economy*, 106(6): 1113-1155.
- Luiz, J. M. 2015. The impact of ethno-linguistic fractionalization on cultural measures: Dynamics, endogeneity and modernization. *Journal of International Business Studies*, 46: 1080-1098.
- Masulis, R. W., Pham, P. K., & Zein, J. 2011. Family business groups around the world: Financing advantages, control motivations, and organizational choices. *Review of Financial Studies*, 24(11): 3556-3600.
- Morck, R., Wolfenzon, D., & Yeung, B., 2005. Corporate governance, economic entrenchment and growth. *Journal of Economic Literature*. 43(3): 655-720.
- Moscana, J., Nunn, N., & Robinson, J. A. 2017. Keeping it in the family: lineage organization and the scope of trust in Sub Saharan Africa. *American Economic Review: Papers and Proceedings*, 107(5): 565-571.
- North, D. C. 1991. Institutions. *Journal of Economic Perspectives*, 5(1): 97-112.
- North, D. C. 1994. The historical evolution of polities. *International Review of Law and Economics*, 14: 381-391.
- Nunn, N., & Wantchekon, L. 2011. The Slave Trade and the Origins of Mistrust in Africa. *American Economic Review*, 101(7): 3221-3252.

NYSE 2016. New York Stock Exchange Manual. Section 3: Corporate Responsibility.

[http://nysemanual.nyse.com/lcm/sections/lcm-sections/chp\\_1\\_4/default.asp](http://nysemanual.nyse.com/lcm/sections/lcm-sections/chp_1_4/default.asp) Accessed 16/8/2016.

Parente, R., Ke, R., Geleilate, J-M, G., & Misati, E. 2019. Adapting and sustaining operations in weak institutional environments: A business ecosystem assessment of a Chinese MNE in Central Africa. *Journal of International Business Studies*, 50: 275-291.

Sarpong, D., Bi, J., & Amankwah-Amoah, J. 2016. On the nurturing of strategic foresight: The Ubuntu perspective. *Futures*, 75: 14-23.

Sanders, W. M. G., & Carpenter, M. A. 1998. Internationalization and firm governance: The roles of CEO compensation, top team composition and board structure. *Academy of Management Journal*, 41(2): 158-178.

Singh, D. A., & Gaur, A. S. 2009. Business group affiliation, firm governance, and firm performance: Evidence from China and India. *Corporate Governance: An International Review*, 17(4): 411–425.

Suchman, M. C. 1995. Managing legitimacy and institutional approaches. *Academy of Management Review*, 20(3): 571-610.

Tajeddin, M., & Carney, M. 2019. African Business Groups: How Does Group Affiliation Improve SMEs' Export Intensity? *Entrepreneurship, Theory & Practice*, 43(6): 1194–1222.

The Economist. 2019a. *Africa's affection economy: In much of Africa the family is bank, business and welfare state*. 12 December.

The Economist. 2019b. *African companies are expanding across the continent*. 22 June.

The Economist. 2017. *A thousand golden stars: China goes to Africa*. 20 July.

- Tung, R. L., & Stahl, G. K. 2018. The tortuous evolution of the role of culture in IB research: what we know, and what we don't know, and where we are headed. *Journal of International Business Studies*, 49(9): 1167-1189.
- Volpin, P. F. 2002. Governance with poor investor protection: evidence from top executive turnover in Italy. *Journal of Financial Economics*, 64: 61-90.
- Wooldridge, J. M. 2009. *Introductory econometrics: a modern approach*. Boston, MA: Cengage Learning.

**Table 1.** Elements of firm level shareholder value governance

This table outlines the governance elements we have included as an integral part of the shareholder value 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 a firm's adoption of shareholder value governance – where the distinction between the two is based on (a) the presence of at least one independent nonexecutive director on the board or (b) a minimum of 50% of independent nonexecutives on the board. The indices were compiled by the authors from individual IPO listing prospectuses for all IPOs that took place in Africa between January 2000 and August 2016. In terms of formal institutional quality; “high” is differentiated from “low” by those values over a median of 64%, while in terms of informal tribalism “high” is differentiated from “low” by being over a median of 46.84%. Finally, t-difference in means statistics are reported alongside each of the means. Bold text indicate that t-difference in means statistics are significant at a  $p$  value of 0.10 or lower

Element	Formal		Informal	
	High Inst. Quality %	Low Inst. Quality %	High Tribalism %	Low Tribalism %
<b>Separation of ownership from control</b>				
(1) Presence of non-ordinary shares	1.03	0.96	<b>0.00</b>	2.13
(2) Proxy voting	<b>78.35</b>	72.12	73.83	76.60
(3) International auditor	<b>42.27</b>	21.15	<b>25.23</b>	38.30
(4) International accounting standards	<b>45.36</b>	36.54	<b>36.45</b>	45.74
<b>Incentive compensation</b>				
(5) CEO pay disclosure	<b>63.92</b>	47.12	<b>37.38</b>	75.53
(6) Executive stock options	<b>9.28</b>	2.88	<b>3.74</b>	8.51
(7) Executive bonuses	22.68	17.31	<b>14.02</b>	26.60
(8) Executive ownership	41.24	43.27	41.12	43.62
<b>Board monitoring</b>				
(9) Unitary Board	<b>57.73</b>	50.00	52.34	55.32
(10) CEO = Chairperson	<b>48.45</b>	40.38	<b>36.45</b>	53.19
(11) Remuneration committee	<b>29.90</b>	18.27	<b>19.63</b>	28.72
(12) Remuneration committee independence	<b>21.65</b>	11.54	<b>12.15</b>	21.28
(13) Audit committee	51.55	51.92	<b>56.07</b>	46.81
(14) Audit committee independence	34.02	30.77	31.78	32.98
(15) Attendance statement of nonexecutives	19.59†	12.50	<b>3.74</b>	29.79
(16a) Independent nonexecutives > 1 nonexecutive board member	49.48	48.08	50.47	46.81
(16b) Independent nonexecutives > 50% of total nonexecutives	<b>34.02</b>	23.08	<b>24.30</b>	32.98
Index – shareholder value (>1)	<b>44.65</b>	37.68	<b>37.15</b>	45.48
Index – shareholder value (>50%)	<b>43.69</b>	36.12	<b>35.51</b>	44.61
Formal Institutional Quality	-- --	-- --	<b>39.34</b>	56.16
Informal Tribalism	<b>57.01</b>	71.91	-- --	-- --

**Table 2** Summary of governance, institutional quality and investor protection statistics

This table reports summary statistics for average direct BG ownership, shareholder value governance adoption, formal institutional quality, informal tribalism and all the precursor indices forming tribalism for individual sample markets. Bold text indicate that t difference in means statistics are significant at a  $p$  value of 0.10 or lower.

Country	N	Direct ownership	Governance metric							
			Shareholder value index	Institutional quality	Tribalism	Corruption	Ethnic fractional	Indigenous population	Gender equality	Group grievance
#	%	%	%	%	0-1	0-1	0-1	0-1	0-1	
<b>North Africa</b>										
Algeria	3	70.70	39.58	33.77	67.55	0.6514	0.3395	0.9900	0.6137	0.5166
Egypt	11	44.44	48.86	38.94	68.47	0.6600	0.1835	0.9100	0.5947	0.7305
Morocco	37	49.44	30.24	46.82	63.94	0.6157	0.4840	0.9900	0.5866	0.4608
Tunisia	39	51.74	33.81	48.88	61.38	0.5914	0.0395	0.9800	0.6307	0.4694
<b>East Africa</b>										
Kenya	7	16.45	60.71	39.06	76.60	0.7357	0.8590	0.9900	0.6757	0.7556
Tanzania	7	1.40	40.18	42.95	69.66	0.6671	0.7355	0.9900	0.7016	0.6825
Uganda	1	0.00	37.50	39.37	76.98	0.7386	0.9300	0.9900	0.7047	0.7501
Rwanda	1	0.00	37.50	51.92	49.52	0.4657	0.3240	0.9900	0.7959	0.7014
Mauritius	13	39.77	39.90	72.11	49.34	0.4700	0.6150	0.6800	0.6512	0.3860
Seychelles	3	0.00	33.33	56.15	49.34	0.4700	0.2025	0.6800	0.6512	0.3860
<b>West Africa</b>										
Nigeria	31	31.22	35.28	29.09	75.94	0.7329	0.6520	0.9800	0.6259	0.5881
BVRM	6	54.10	22.92	42.22	65.16	0.6243	0.7870	0.9900	0.5955	0.6550
Ghana	15	13.88	41.67	52.84	58.45	0.5571	0.6735	1.0000	0.6798	0.5412
Cape Verde Islands	1	0.00	31.25	58.62	45.10	0.4271	0.4175	0.0000	0.7153	0.7480
Sierra Leone	1	0.00	37.50	36.08	72.76	0.6986	0.8190	0.9000	0.6610	0.7187
<b>Southern Africa</b>										
Botswana	7	7.58	66.96	68.88	40.14	0.3757	0.4100	0.9600	0.6945	0.4938
Malawi	1	48.16	56.25	48.87	69.89	0.6686	0.8790	0.9000	0.6851	0.7690
Zambia	2	38.91	65.63	46.88	65.51	0.6271	0.7810	0.9900	0.6321	0.6495
Namibia	4	20.33	68.75	61.17	52.23	0.4943	0.6330	0.8500	0.7264	0.6056
Mozambique	1	98.10	31.25	44.56	74.64	0.7171	0.6930	0.9900	0.7283	0.6298
South Africa	10	5.48	86.88	59.26	59.11	0.5657	0.7515	0.7900	0.7466	0.2719
Civil code	115	<b>47.72</b>	<b>34.35</b>	<b>49.41</b>	<b>61.44</b>	<b>0.5907</b>	<b>0.3239</b>	<b>0.9272</b>	<b>0.6167</b>	<b>0.4967</b>
vs. Common law	86	18.79	50.00	44.26	66.12	0.6339	0.6812	0.9538	0.6719	0.5645
North Africa	90	<b>50.54</b>	<b>34.38</b>	46.31	63.51	0.6118	<b>0.2498</b>	<b>0.9759</b>	<b>0.6076</b>	<b>0.4993</b>
vs. SSA	101	21.25	47.80	48.26	63.29	0.6062	0.6535	0.9037	0.6709	0.5410
Overall	201	35.34	41.04	47.21	63.44	0.6092	0.4768	0.9386	0.6403	0.5258

**Table 3. Pearson Correlation analysis**

This table reports descriptive statistics and Pearson correlations for all variables in aggregate sample. Bold text indicate that correlations are significant at a  $p$  value of 0.10 or lower.

	Mean	Std. dev.	1	2	3	4	5	6	7
1 Shareholder value overall index (>1)	0.410	0.186	1.000						
2 Business Group own, %	0.273	0.309	<b>-0.237</b>	1.000					
3 Institutional quality, Normalized	0.000	1.000	<b>0.272</b>	-0.050	1.000				
4 Tribal index, Normalized	0.000	1.000	<b>-0.228</b>	-0.009	<b>-0.806</b>	1.000			
5 Common law, 0-1	0.423	0.495	<b>0.426</b>	-0.067	<b>-0.206</b>	<b>0.292</b>	1.000		
6 Log (GDP per capita, US\$)	8.774	0.688	<b>0.150</b>	0.076	<b>0.452</b>	<b>-0.536</b>	<b>-0.426</b>	1.000	
7 Log (board size, #)	2.100	0.390	<b>-0.119</b>	0.098	<b>-0.142</b>	<b>0.210</b>	<b>-0.141</b>	-0.044	1.000
8 Log (Av. Executive tenure, years)	1.676	0.921	-0.001	0.091	<b>-0.200</b>	<b>0.231</b>	0.028	-0.113	-0.011
9 Ratio nonexecutives on board, %	0.658	0.209	0.105	0.027	-0.092	0.056	<b>0.215</b>	<b>-0.116</b>	<b>0.123</b>
10 CEO = Founder, 0/1	0.498	0.501	0.059	0.019	-0.028	-0.077	0.040	<b>0.156</b>	<b>-0.180</b>
11 Ratio social elite nonexecutives, %	0.175	0.214	<b>0.161</b>	<b>-0.151</b>	<b>-0.226</b>	<b>0.270</b>	<b>0.442</b>	<b>-0.265</b>	-0.059
12 Log (Revenue, US\$)	9.816	2.016	<b>0.204</b>	<b>0.137</b>	-0.087	<b>0.118</b>	<b>-0.152</b>	<b>0.232</b>	<b>0.283</b>
13 ROA, US\$	0.065	0.308	0.055	0.019	-0.005	0.050	-0.044	0.018	0.011
14 Log (Firm Age, years)	2.659	1.065	-0.108	0.038	<b>-0.176</b>	<b>0.258</b>	<b>-0.145</b>	-0.049	<b>0.361</b>
15 Ratio debt to total assets, %	0.639	0.838	0.014	-0.046	-0.064	0.001	-0.014	0.058	0.097
16 Shares Offered/ Total Shares, %	0.333	0.228	-0.040	-0.086	-0.095	0.034	<b>0.276</b>	<b>-0.247</b>	-0.091
17 Lead Manager is foreign, 0/1	0.149	0.357	<b>0.286</b>	0.081	-0.023	0.071	0.035	-0.062	0.053

**Table 3. (Continued) Pearson Correlation analysis**

This table reports descriptive statistics and Pearson correlations for all variables in aggregate sample. Bold text indicate that correlations are significant at a  $p$  value of 0.10 or lower.

	8	9	10	11	12	13	14	15	16	17
1 Shareholder value overall index (>1)										
2 Business Group own, %										
3 Institutional quality, Normalized										
4 Tribal index, Normalized										
5 Common law, 0-1										
6 Log (GDP per capita, US\$)										
7 Log (board size, #)										
8 Log (Av. Executive tenure, years)	1.000									
9 Ratio nonexecutives on board, %	0.112	1.000								
10 CEO = Founder, 0/1	0.084	<b>-0.124</b>	1.000							
11 Ratio social elite nonexecutives, %	-0.048	<b>0.242</b>	-0.091	1.000						
12 Log (Revenue, US\$)	0.100	-0.017	-0.091	-0.113	1.000					
13 ROA, US\$	<b>0.119</b>	0.003	0.077	-0.030	<b>0.195</b>	1.000				
14 Log (Firm Age, years)	<b>0.429</b>	-0.024	<b>-0.321</b>	<b>-0.118</b>	<b>0.305</b>	<b>0.126</b>	1.000			
15 Ratio debt to total assets, %	0.010	<b>0.121</b>	0.046	0.007	0.020	-0.076	-0.076	1.000		
16 Shares Offered/ Total Shares, %	<b>-0.152</b>	<b>0.137</b>	-0.052	<b>0.201</b>	<b>-0.296</b>	-0.063	<b>-0.225</b>	0.034	1.000	
17 Lead Manager is foreign, 0/1	-0.041	0.058	-0.056	-0.015	<b>0.196</b>	0.054	0.038	-0.039	0.071	1.000

**Table 4.** Random effects OLS regression between BG ownership and firm's adoption of shareholder value governance<sup>a, b, c</sup>

This table presents the random (country) effects OLS regression results for dependent variable which is the shareholder value governance index (>1). In all cases the formal institutional quality and informal tribal indices are normalized. Additional country-level constant is included in variable part of random variance component

	Dependent variable: shareholder value overall index (>1) – underlying index			
	Controls only		Ownership plus controls	
	Model 1	<i>p</i> -value	Model 2	<i>p</i> -value
Constant	<b>-0.405 [0.222]</b>	<b>0.069</b>	<b>-0.375 [0.212]</b>	<b>0.077</b>
<b>Hypotheses</b>				
BG ownership	-- --		<b>-0.071 [0.037]</b>	<b>0.054</b>
<b>Moderation - formal</b>				
BG ownership x Institutional quality	-- --		-- --	
<b>Moderation - informal</b>				
BG ownership x Tribal index	-- --		-- --	
Institutional quality	<b>+0.035 [0.02]</b>	<b>0.083</b>	+0.032 [0.021]	0.131
Tribal index	-- --		-- --	
<b>Environmental controls</b>				
Common law	<b>0.206 [0.046]</b>	<b>0.000</b>	<b>0.193 [0.041]</b>	<b>0.000</b>
Log (GDP per capita)	<b>0.074 [0.022]</b>	<b>0.001</b>	<b>0.070 [0.021]</b>	<b>0.001</b>
<b>Board controls</b>				
Log (board size)	-0.028 [0.039]	0.476	-0.020 [0.037]	0.585
Log (Av. Executive tenure)	0.007 [0.013]	0.599	0.008 [0.013]	0.543
Ratio nonexecutives on board	<b>0.293 [0.042]</b>	<b>0.000</b>	<b>0.277 [0.043]</b>	<b>0.000</b>
CEO = Founder	0.007 [0.014]	0.595	0.007 [0.014]	0.622
Ratio social elite nonexecutives	0.004 [0.082]	0.960	0.008 [0.077]	0.914
<b>Firm controls</b>				
Log (Revenue)	<b>0.016 [0.006]</b>	<b>0.010</b>	<b>0.018 [0.006]</b>	<b>0.003</b>
ROA	0.029 [0.029]	0.315	0.031 [0.027]	0.259
Log (Firm Age)	-0.002 [0.014]	0.864	-0.003 [0.014]	0.854
Ratio debt to total assets	-0.003 [0.007]	0.698	-0.002 [0.007]	0.817
<b>IPO controls</b>				
Shares Offered/ Total Shares	<b>-0.101 [0.041]</b>	<b>0.015</b>	<b>-0.110 [0.043]</b>	<b>0.010</b>
Lead Manager is foreign	<b>0.101 [0.039]</b>	<b>0.010</b>	<b>0.098 [0.039]</b>	<b>0.011</b>
No. Obs.	189		189	
Wald $\chi^2$ [prob]	314.47 [0.00]		323.42 [0.00]	
R <sup>2</sup> within	0.3395		0.3516	
R <sup>2</sup> between	0.8727		0.8805	
R <sup>2</sup> overall	0.6771		0.6846	

<sup>a</sup> Binary effects for year and industry were included in the models but are not reported in the table; <sup>b</sup> Standard errors are in parentheses; <sup>c</sup> Country-cluster adjusted standard errors & covariance; Bold indicates *p* value under 0.10

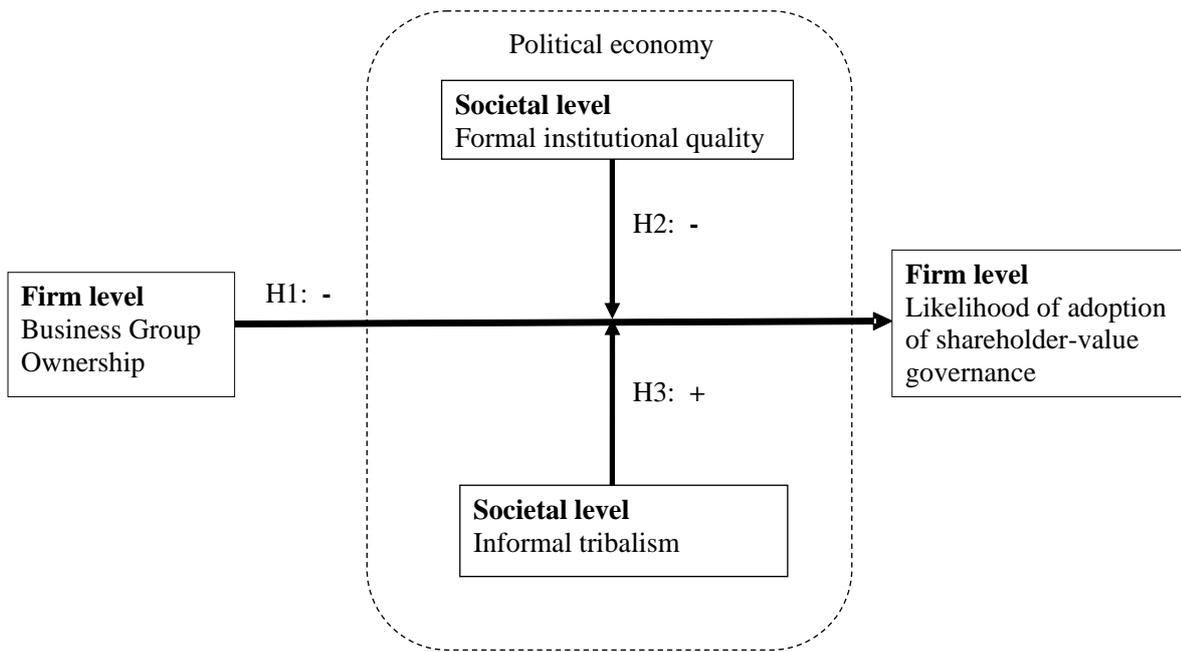
**Table 5.** Random effects OLS regression between BG ownership and firm's adoption of shareholder value governance<sup>a, b, c</sup>

This table presents the random (country) effects OLS regression results for dependent variable which is the shareholder value governance index (>1). In all cases the formal institutional quality and informal tribal indices are normalized. Additional country-level constant is included in variable part of random variance component

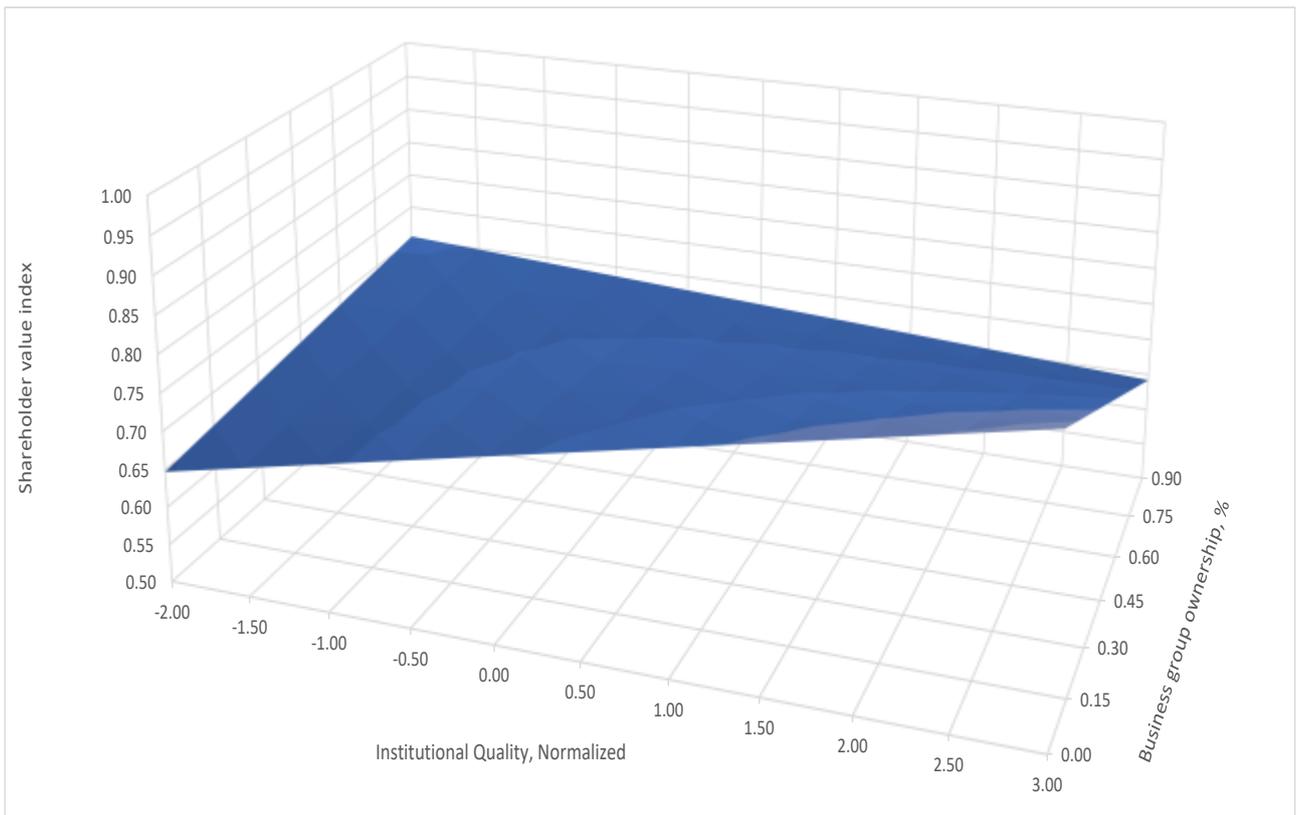
	Dependent variable: shareholder value overall index (>1) – underlying index			
	Formal Institutional quality		Informal Tribalism index	
	Model 3	<i>p</i> -value	Model 4	<i>p</i> -value
Constant	<b>-0.373 [0.195]</b>	<b>0.056</b>	<b>-0.331 [0.171]</b>	<b>0.053</b>
<b>Hypotheses</b>				
BG ownership	<b>-0.067 [0.031]</b>	<b>0.028</b>	<b>-0.076 [0.037]</b>	<b>0.038</b>
<b>Moderation - formal</b>				
BG ownership x Institutional quality	<b>-0.066 [0.027]</b>	<b>0.015</b>	-- --	
<b>Moderation - informal</b>				
BG ownership x Tribal index	-- --		<b>+0.061 [0.032]</b>	<b>0.052</b>
Institutional quality Tribal index	<b>+0.047 [0.017]</b>	<b>0.005</b>	-- --	<b>0.000</b>
<b>Environmental controls</b>				
Common law	<b>0.189 [0.042]</b>	<b>0.000</b>	<b>0.197 [0.026]</b>	<b>0.000</b>
Log (GDP per capita)	<b>0.070 [0.020]</b>	<b>0.000</b>	<b>0.063 [0.018]</b>	<b>0.000</b>
<b>Board controls</b>				
Log (board size)	-0.020 [0.037]	0.589	-0.019 [0.029]	0.514
Log (Av. Executive tenure)	0.007 [0.013]	0.608	0.008 [0.013]	0.510
Ratio nonexecutives on board	<b>0.282 [0.044]</b>	<b>0.000</b>	<b>0.272 [0.048]</b>	<b>0.000</b>
CEO = Founder	0.007 [0.013]	0.594	0.002 [0.021]	0.918
Ratio social elite nonexecutives	0.011 [0.078]	0.891	0.035 [0.055]	0.528
<b>Firm controls</b>				
Log (Revenue)	<b>0.017 [0.006]</b>	<b>0.006</b>	<b>0.019 [0.006]</b>	<b>0.001</b>
ROA	0.025 [0.029]	0.374	0.035 [0.030]	0.246
Log (Firm Age)	0.001 [0.014]	0.982	-0.001 [0.012]	0.984
Ratio debt to total assets	-0.004 [0.007]	0.582	-0.003 [0.011]	0.784
<b>IPO controls</b>				
Shares Offered/ Total Shares	<b>-0.109 [0.043]</b>	<b>0.012</b>	<b>-0.124 [0.045]</b>	<b>0.006</b>
Lead Manager is foreign	<b>0.092 [0.039]</b>	<b>0.020</b>	<b>0.098 [0.027]</b>	<b>0.000</b>
No. Obs.	189		189	
Wald $\chi^2$ [prob]	332.83 [0.00]		343.48 [0.00]	
R <sup>2</sup> within	0.3634		0.3635	
R <sup>2</sup> between	0.8886		0.9115	
R <sup>2</sup> overall	0.6922		0.6989	

<sup>a</sup> Binary effects for year and industry were included in the models but are not reported in the table; <sup>b</sup> Standard errors are in parentheses; <sup>c</sup> Country-cluster adjusted standard errors & covariance. Bold indicates *p* value under 0.10

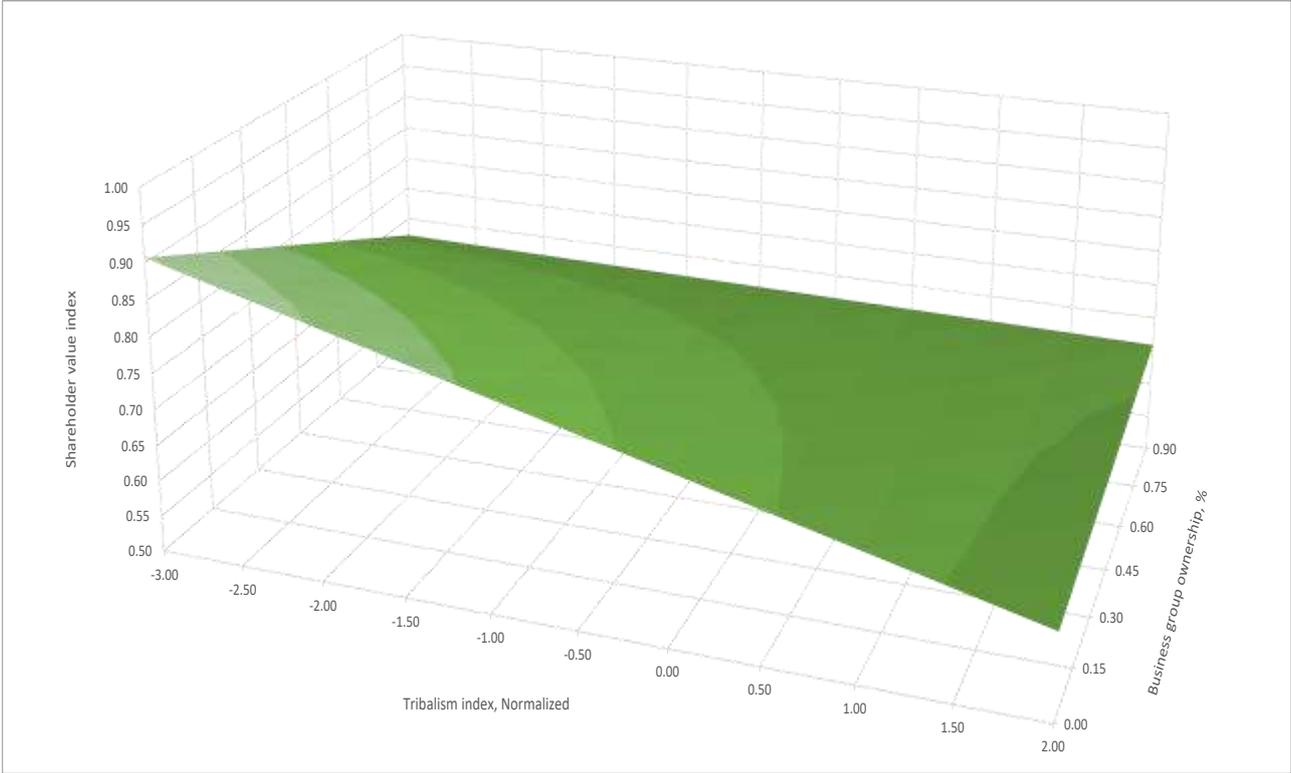
**Figure 1.** Theoretical associations



**Figure 2.** Business group ownership and moderation by formal institutional quality



**Figure 3.** Business group ownership and moderation by informal tribalism



## Endnotes

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<sup>i</sup> Constructing such a firm-level index is labor intensive, and involves unrestricted access to all prospectuses for each firm at listing, which are typically unavailable or at best partially available through standard subscription third-party data vendors such as Bloomberg or Thomson. Further complexity, as evidenced in our African multi-country sample, is added by the prevalence of at least four languages in the corporate communications and filings, two different accounting philosophies (continental European versus Anglo Saxon), and the often at best minimal adoption of formal international accounting standards such as IFRS.

<sup>ii</sup> 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. 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>

<sup>iii</sup> <https://www.transparency.org/research/cpi/overview>

<sup>iv</sup> <https://www.cia.gov/library/publications/theworldfactbook/>

<sup>v</sup> <http://www.weforum.org/issues/globalgender-gap>

<sup>vi</sup> <https://fragilestatesindex.org/indicators/c3/>

<sup>vii</sup> If dummy variables for all country (and time) categories were included, their sum would equal one 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 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).

<sup>viii</sup> 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 common characteristic of emerging economies.

<sup>ix</sup> Results available upon request.

## Supplement

### Appendix Table 1. Data sources

The table documents the used non-exhaustive representation of data and information sources from across Africa.

Market	Information source
<b>North Africa</b>	Databases: Al Zawya (see website at: <a href="http://www.zawya.com/">http://www.zawya.com/</a> ); Mubasher investment reporting ( <a href="http://www.mubasher.net/en/Index.aspx">http://www.mubasher.net/en/Index.aspx</a> ); Bloomberg LLP; Business Week
Algeria	Websites: Bourse d'Algérie [SGBV] ( <a href="http://www.sgbv.dz">http://www.sgbv.dz</a> ); Commission d'Organisation et des Surveillances des Opérations de Bourse [COSOB] ( <a href="http://www.cosob.org/">http://www.cosob.org/</a> ) Telephone interviews and direct correspondence: M. Hamdi and Mme. Haffar (Bourse d'Alger)
Egypt	Websites: Egyptian Stock Exchange [EGX] ( <a href="http://www.egx.com.eg/english/homepage.aspx">http://www.egx.com.eg/english/homepage.aspx</a> ); The Egyptian Financial Supervisory Authority ( <a href="http://www.efsa.gov.eg/content/IFIE/about_efsa.html">http://www.efsa.gov.eg/content/IFIE/about_efsa.html</a> ); Central Bank of Egypt ( <a href="http://www.cbe.org.eg/English/">http://www.cbe.org.eg/English/</a> ) 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 ( <a href="http://www.casablanca-bourse.com/">http://www.casablanca-bourse.com/</a> ); Le Conseil Déontologique des Valeurs Mobilières [CDVM] ( <a href="http://www.cdvm.gov.ma/">http://www.cdvm.gov.ma/</a> ) 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 ( <a href="http://www.bvmt.com.tn/">http://www.bvmt.com.tn/</a> ); Conseil du Marché Financier [CMF] ( <a href="http://www.cmf.org.tn/">http://www.cmf.org.tn/</a> ); Central Bank of Tunisia ( <a href="http://www.bct.gov.tn/">http://www.bct.gov.tn/</a> ) 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
<b>Sub-Saharan Africa</b>	Databases: African financials annual reports ( <a href="http://www.africanfinancials.com/">http://www.africanfinancials.com/</a> ); Invest Africa annual reports ( <a href="http://investinginafrica.net/african-stock-markets/">http://investinginafrica.net/african-stock-markets/</a> ); Thomson Perfect Information portal; Bloomberg LLP; Business Week
<b>East Africa</b>	
Kenya	Websites: Nairobi securities exchange ( <a href="https://www.nse.co.ke/">https://www.nse.co.ke/</a> ); Capital Markets Authority Kenya ( <a href="http://www.cma.or.ke/">http://www.cma.or.ke/</a> ); Daily Nation business journal ( <a href="http://www.nation.co.ke/">http://www.nation.co.ke/</a> ) Local Nairobi-based interviews: Public relations officer, Nairobi Stock Exchange; Investment Manager, Suntra Investment Bank, Kenya
Mauritius	Websites: Stock Exchange of Mauritius [SEM] ( <a href="http://www.stockexchangeofmauritius.com/">http://www.stockexchangeofmauritius.com/</a> )
Seychelles	Websites: Trop-X Seychelles stock exchange ( <a href="http://www.trop-x.com/">http://www.trop-x.com/</a> )
Tanzania	Websites: Dar Es Salaam stock exchange ( <a href="http://www.dse.co.tz/">http://www.dse.co.tz/</a> ) Telephone procurement of listing prospectus from M. Stimali, Tanzania Tea Packers Ltd.
Rwanda	Websites: Rwanda stock exchange ( <a href="http://rse.rw/">http://rse.rw/</a> ); Capital Market Authority ( <a href="http://cma.rw/">http://cma.rw/</a> )
Uganda	Websites: Uganda securities exchange [USE] ( <a href="http://www.use.or.ug/">http://www.use.or.ug/</a> ); Capital Markets Authority ( <a href="http://www.cmauganda.co.ug/">http://www.cmauganda.co.ug/</a> ) 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
<b>West Africa</b>	
Nigeria	Websites: Nigerian stock exchange [NSE] ( <a href="http://www.nse.com.ng/Pages/default.aspx">http://www.nse.com.ng/Pages/default.aspx</a> ); Securities and Exchange Commission Nigeria ( <a href="http://www.sec.gov.ng/">http://www.sec.gov.ng/</a> ) 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	Websites: BVRM main site ( <a href="http://www.brvm.org">http://www.brvm.org</a> ) 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

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	<p>formation, BRVM)  Abidjan brokers: M. Auguste Kouakou (Gniman-Finance SA, Abidjan); M. Hermann Boua (Hudson et Cie, Abidjan)</p>
Ghana	<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)  Websites: Ghana stock exchange (<a href="http://www.gse.com.gh/">http://www.gse.com.gh/</a>)  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>
Cape Verde	<p>Website: Cape Verde stock exchange [BVC] (<a href="http://www.bvc.cv/">http://www.bvc.cv/</a>)  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 (CEOs of independent locally licensed stockbrokers, Freetown)</p>
<b>Southern Africa</b>	
Botswana	<p>Website: Botswana stock exchange [BSE] (<a href="http://www.bse.co.bw/">http://www.bse.co.bw/</a>)  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] (<a href="http://www.mse.co.mw/">http://www.mse.co.mw/</a>); <i>The Nation</i> business journal (<a href="http://mwnation.com/">http://mwnation.com/</a>)  Telephone interviews and data procurement: Malawi stock brokers, Blantyre, Malawi</p>
Zambia	<p>Websites: Lusaka stock exchange [LuSE] (<a href="http://www.luse.co.zm/">http://www.luse.co.zm/</a>); <i>The Post</i> business journal (Zambia) (<a href="http://www.postzambia.com/">http://www.postzambia.com/</a>)  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] (<a href="http://nsx.com.na/">http://nsx.com.na/</a>)  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] (<a href="http://www.bvm.co.mz/">http://www.bvm.co.mz/</a>)  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] (<a href="https://www.jse.co.za/">https://www.jse.co.za/</a>)  Telephone-based procurement: Market data department, JSE, Johannesburg. South Africa</p>

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**Appendix Table 2.** African institutional environment

<b>Listings requirements</b>	<b>Corporate Governance Legal Framework</b>	<b>Additional Corporate Governance Institutions</b>
<b>North Africa</b>		
<b>Algeria</b>		
Single tier “Le compartiment des actions” Criteria: min 3 years audited financial statements	Compliance with Algerian “Code de Commerce”  Regulator: Commission d’Organisation et de Surveillance des Opérations de Bourse (COSOB), which also sets the operating rules of the Stock Exchange	Hawkama El Djazair (Endorsed by the Ministry of SMEs)
<b>Egypt</b>		
3 tiers (1) Official market, comprising of publicly listed companies. It is highly regulated; (2) Unofficial market, where the transfer of unlisted securities takes place. The unofficial market is not subject to the same level of regulation, but still subject to approval by EGX; (3) Nilex (SMEs) Criteria: Min 150 dispersed shareholder, 2m issued shares worth min LE 20m (US\$ 3.25m); 3 years audited financial statements; Net profits for the last fiscal year >5% of capital	Legislative legal framework: the Egyptian Capital Market Law 95 (1992) and its executive regulations; the Egyptian Exchange (EGX) Listing Rules issued pursuant to Decree 11 (2014) of the Board of Directors of the Financial Regulatory Authority (FRA) (previously the Capital Market Authority) and their executive regulations; Code of Corporate Governance for the private sector; Code of Corporate Governance for State-Owned Enterprises  Regulator: Financial Regulatory Authority (FRA), which has significant powers under the Capital Market Law (and its executive regulations) and the EGX via Listing Rules (and their executive regulations)	Egyptian Institute of Directors
<b>Morocco</b>		
3 tiers: Marché (1) principal (large cap); (2) développement (mid and small cap); (3) croissance (SMEs) Criteria: Min 150 dispersed shareholders with issue size of 250,000 shares of MAD 75m (US\$ 8.44m); 3 years audited financial statements; MAD >50m (US\$ 5.17m) sales	Legislative legal framework: Royal decrees: Law 17-95 (30 august 1996, completed on 23rd may 2008) governing public limited liability companies; Law n°1-93-212 (21st of September 1993 amended several times) creating CDVM and all information required from listed companies; Code of Good Corporate Governance Practices (and annexes on corporate governance of SMEs and banks); Code on Corporate Governance of SOEs  Regulator: 2 tiers (1) The “Conseil Déontologique des Valeurs Mobilières”, which supervises the Casablanca Stock Exchange (CSE), while the “Association Professionnelle des Sociétés de Bourses” (APSB) formulates the rules and procedures for Trading; (2) Bank Al-Maghrib, the Central Bank, which supervises the banking and insurance sectors, in coordination with the Ministry of Finance that approves commercial banks’ licenses	National Commission of Corporate Governance
<b>Tunisia</b>		
2 tiers: Main (large and mid cap) and alternate (small cap) markets Criteria: Min 200 shareholders: 200 across min 10% of firm’s capital; min issue size TD 3m (US\$ 1.87m); 2 years audited financial statements; Profit over last 2 years	Legislative legal framework: Code des Sociétés Commerciales (CSC, Code of Commercial Firms); Stock market regulation by Conseil du Marché Financier (Tunisian securities regulator ); Code of Best Practice of Corporate Governance Guidelines on corporate governance for the banking sector  Regulator: The Financial Market Council (Conseil du Marché Financier, CMF) is responsible for regulating, monitoring and supervising capital markets. The Council oversees and controls the stock market, primary dealers, mutual funds and the clearing and settlement house	L’Institut Arabe des Chefs d’Entreprises
<b>East Africa</b>		
<b>Kenya</b>		
3 tiers: (1) Main (large caps), (2) Enterprise (mid and small caps), and growth (small caps) Criteria: Min 1,000 dispersed	Legal framework: Companies Act (Cap 486 of the Laws of Kenya); Capital Markets Act (Cap 485A of the Laws of Kenya); The Capital Markets (Securities) (Public Offers, Listing and Disclosures) Regulations 2002; Capital Markets Authority established by the	Institute of Directors - Kenya

shareholders; min issue size KS 50m and 100,000 shares; 3 years IFRS audited financial statements; Net assets of KS 100m (US\$100,000)	Capital Markets Act (Cap 485A); the State Corporations Act, 1986; the Cooperatives Act	
<b>Tanzania</b> 2 listings tiers: (1) Main (large caps), (2) Enterprise (mid and small caps) Criteria: Min 1,000 shareholders, accounting for 25% capital; min issue size is TZS 1b (US\$ 434,000) with 1m shares; 3 years IFRS audited financial statements; Net assets of TZS 50m (US\$ 22,000) located in Tanzania	Regulator: Capital Markets Authority (CMA) is the Government Regulator charged with licensing and regulating the capital markets in Kenya. It also approves public offers and listings of securities traded at the Nairobi Securities Exchange  Legal framework: The Companies Act (2002), Cap 212 (the CA) and the Capital Markets and Securities Act (1994); Public Corporations Act (1992)  Regulator: The three regulatory authorities of Kenya, Uganda and Tanzania signed a Memorandum of Understanding in 1997 and created an umbrella body known as the East African Securities Regulatory Authorities (EASRA)	Institute of Directors - Tanzania
<b>Uganda</b> 2 tiers: (1) Main (large caps), (2) Alternative Investment Market (mid and small caps) Criteria: Min 1,000 dispersed shareholders with 20% of capital; min 1m share issuance; 5 years IAS audited financial statements; Net assets accounts for 20% net profit	Legal framework: The Companies Act (1961); Provisional draft code of corporate governance (best practice – not ratified)  Regulator: The Capital Markets Authority of Uganda (CMA); The CMA established by an Act of Parliament has overall supervisory powers over the capital markets industry. Its powers include licensing all market intermediaries and stock exchanges as well as approving all new issues and corporate actions. The USE on the other hand is a “first tier regulator” having direct oversight over the listed entities and member firms, on behalf of the CMA as a self-regulatory organization	The Institute of Corporate Governance of Uganda
<b>Rwanda</b> 2 tiers: (1) Main board, (2) Alternative Market Segment (mid and small caps) Criteria: Min 50 dispersed shareholders with 25% equity capital; min issue size is FRw 500m (US\$ 536,470); 3 years IFRS audited financial statements	Legal framework: Capital Market Regulation (Law No 11/2011); Company Law (Law No. 07/2009 of 27/04/2009). Laws are formed by a legislative council as well as ministerial decrees issued by Prime Ministers office.  Regulator: Capital Market Authority (CMA) is a public institution established by Law No.23 /2017 of 31/05/2017 responsible for developing and regulating the capital markets industry. CMA was previously referred to as the Capital Market Advisory Council (CMAC) which was a council established by Prime Minister's Order of 28 March 2007 to initially guide the development of a Capital Market in Rwanda; Rwandan Corporate Governance Code (2017)	Private sector federation
<b>Mauritius</b> 2 tiers: (1) Official market, (2) Development & Enterprise Market Criteria: Min 200 dispersed shareholders with 25% equity capital; min capitalization of MRU 20m (US\$ 535,174); 2 years IFRS audited financial statements	Legal framework: Companies Act (2001), the Banking Act (2004), the Securities (Central Depository, Clearing and Settlement) Act (1996), the Financial Intelligence and Anti Money Laundering Act (2002), the Prevention of Corruption Act (2002), the Financial Reporting Act (2004), the Securities Act (2005), and the Insolvency Act (2009). In addition, many rules and regulations were made under the Financial Services Act (2007); Mauritius Code of Corporate Governance (2014)  Regulator: Stock Exchange of Mauritius; Bank of Mauritius; Ministry of Finance	National Committee on Corporate Governance; Mauritius Institute of Directors
<b>Seychelles</b> 3 tiers: (1) Main, (2) Small & Medium Board, (3) Venture Capital Board Criteria: min 60 dispersed shareholders across 25% of equity capital; 3 years audited financial statements	Legal framework: Securities Act (2007); Companies Ordinance (1972); Financial Services Authority Act (2013); Financial Institution Act (2004); Anti-Money Laundering Act (2006); Voluntary Code of Conduct recommendations  Regulator: Financial Services Authority and Central Bank of Seychelles	No/ None

<b>West Africa</b>		
<b>Nigeria</b>		
<p>3 tiers: (1) Premium board (Large cap), (2) Main board (mid and small caps), and (3) ASEM (small cap and SMEs)</p> <p>Criteria: Min 300 dispersed shareholders with 20% equity capital; min issue NGN 4b with NGN 3b (US\$ 8.27m) shareholder equity; 3 years IFRS audited financial statements; Pre-tax profit of NGN 300b (US\$ 827m) for last 3 years</p>	<p>Legal framework: Investment and Securities Act (2007), the SEC Consolidated Rules and Regulations (2013), and the license issued to The Nigerian Stock Exchange (“The Exchange”) by the SEC empowers The Exchange to engage in registration, inspection, surveillance, enforcement and rule making activities in respect of its dealing members and listed companies. The rules of The Exchange however need to be approved by the SEC before they can become operational. The SEC itself derives most of its powers from Investment and Securities Act (2007); Voluntary code of Best Practice for Public Companies (established by SEC, 2016)</p> <p>Regulator: The Securities and Exchange Commission (SEC) is the apex regulator of capital markets, overseeing all operators, activities and transactions in capital markets; All financial sector regulatory agencies in Nigeria are part of the Financial Services Regulation Coordinating Committee (FSRCC), which coordinates supervisory activities across the financial sector</p>	Institute of Directors - Nigeria
<b>BVRM</b>		
<p>Regional exchange serving 8 UMEAO member state countries. Antennae de bourse (satellite) offices are located in each of the 8 countries. Networks of licensed brokers (SGL, or Sociétés de Gestion et d’Intermédiation) mirror the antennae de bourse, where numbers are highest in Cote d’Ivoire, Senegal, Togo and Benin. Two listing segments: (1) Premier (large cap), (2) Second compartiment (mid and small cap)</p> <p>Criteria: Min 300 dispersed shareholders with 20% capital; min issue of FCFA 500m (US\$ 845,710); 5 years IFRS audited financial statements; Net margin on sales of 3% for last 3 years</p>	<p>Legislative legal framework: The Union Economique et Monétaire de l’Afrique de l’Ouest (UEMOA) zone has adopted the OHADA legal framework (Organization for Harmonization of Business Laws in Africa). The main statute that governs companies is the Uniform OHADA Act on company law (Acte Uniforme de OHADA relatif au droit des sociétés commerciales et du Groupement d’intérêt économique, or AUSCGIE), adopted in 1997. UEMOA countries share a common securities regulator (Le Conseil Régional de l’Epargne Publique et des Marchés Financiers, or CREPMF) and stock exchange (the BRVM)</p> <p>Regulator: Capital markets fall under the jurisdiction of the “Conseil Régional de l’Epargne Publique et des Marchés” (CREPMF); The Central Bank of West African States controls the Banking Commission which oversees banks and other financial institutions; Insurance companies are supervised by the Conference of Insurance Markets (CIMA), which is based in Cameroon and oversees insurance companies in all UEMOA states as well as other Central African countries</p>	Director training organization (the Institut Sénégalais des Administrateurs, or ISA) created in 2005
<b>Ghana</b>		
<p>2 listing segments (1) Main and GAX (SMEs)</p> <p>Criteria: Min 100 dispersed shareholders with 25% capital; min issue GHc 1m (US\$ 183,453), post-flotation capital GHc 30b (US\$ 5,503.6m); 3 years IFRS audited financial statements; Pre-tax profit for last 3 years</p>	<p>Legal framework: Companies Code (1963), the Securities Industry Law (1993) and the Securities Industry (Amendment) Act 2000, and the Securities and Exchange Commission (SEC) Regulations 2003; SEC’s corporate governance guidelines (voluntary); Listed companies are required to use International Financial Reporting Standards (IFRS) and auditors International Standards of Audit (ISA);</p> <p>Regulator: Listed companies, capital market intermediaries, and the Ghana Stock Exchange (GSE), are under the supervision of the SEC. The SEC is subordinate to the Ministry of Finance and its members are chosen by the President and include a mix of government representatives and those with experience in the securities industry</p>	Institute of Directors - Ghana
<b>Cape Verde Islands</b>		
<p>Single tier listing segment</p> <p>Criteria: Min 10% capital to dispersed shareholders with min issue CVE 100m (US\$ 1m) and 50,000 shares; 2 years IFRS audited financial statements; Pre-tax profit of CVE 100m (US\$ 1m)</p>	<p>Legislative legal framework: Código dos Valores Mobiliários"o Código de Mercado dos Valores Mobiliários, aprovado pela Lei no 52/V 198, de 11 de Maio; Código das Empresas Comerciais" o Código aprovado pelo Decreto-Lei no 3/99, de 29 de Março</p> <p>Regulator: Capital markets are regulated by the “Codigo do Mercado dos Valores Mobiliários” which regulates the issuance of equity/bonds. The BCV has regulatory oversight of the financial</p>	No/ None

	sector. Insurance companies fall under the supervision of the Ministry of Finance	
<b>Sierra Leone</b>		
Single listing tier with exchange operating under auspices of National Development Bank, in capital Freetown. Criteria: no min dispersion of shareholders; stipulation of projected cash flows for 5 years; post-flotation capital LE 100m (US\$ 11,000); 3 years IFRS audited financial statements; Pre-tax profit for last 3 years	Legal framework: The Companies Act (2009); Public Financial Management Act of Sierra Leone (2016); Government's corporate affairs commission drafted National Corporate Governance Code for Sierra Leone; Sierra Leone stock exchange operations and regulation governed by the Interim Stock Trading Rules and Regulations (not ratified in parliament)  Regulator: Bank of Sierra Leone; Ministry of Finance	No/ None
<b>Southern Africa</b>		
<b>Botswana</b>		
3 segments: (1) Main board, (2) Foreign board, (3) Venture Capital boards Criteria: Min 300 dispersed shareholders with 20% capital; min issue P 1m (US\$ 90,000) and 1m shares with a min price of P1 (100 Thebe) (US\$ 10c); 3 years IFRS audited financial statements; Pre-tax profit of P 1m (US\$ 90,000) for last 3 years	Legal framework: Botswana Stock Exchange Act (1994); The Companies Act (2003); BSE is a statutory body created by an Act of Parliament of 1994. It is governed by the BSE Act pending the commencement of the Securities Act which will replace the BSE Act  Regulator: Capital markets are supervised by the Botswana Stock Exchange Committee in conjunction with the Banking and Capital Markets Unit of the Ministry of Finance; Bank of Botswana has a supervisory role and is authorized to enact management rules and set prudential standards for banking institutions; Non-Bank Financial Institutions Regulatory Authority (NBFIRA) was established in 2008 to regulate and supervise non-bank financial Institutions	Institute of Directors - Botswana
<b>Malawi</b>		
2 listing tiers (1) Main board, (2) Alternative board. No firms listed on alternative board Criteria: Min 300 shareholders with 25% equity capital; issue 100% underwritten, min issue is 30m shares, MK 500m (US\$ 680,000) paid up capital; 3 years IFRS audited financial statements; Pre-tax profit last 3 years	Legal framework: Companies Act (1984, revised 2013); Capital Markets Development Act (1990) which established the Reserve Bank of Malawi as the principal regulator of securities markets. The Listings Requirements of the MSE, which have been largely harmonized with the rules of the Johannesburg Stock Exchange; Malawi Stock Exchange Regulations; Financial firms have to additionally comply with the Banking Act (1989) and licensing by Reserve Bank of Malawi; Society of Accountants in Malawi (SOCAM) issued a Corporate Governance Code of Best Practice in 2001, based on the models from the UK and South Africa (especially the King report)  Regulator: Reserve Bank of Malawi (not independent from executive)	Malawi Institute of Directors (IoDM)
<b>Zambia</b>		
2 tiers: (1) Main board, (2) Affiliate board, where this falls short of formal listing Criteria: Min 300 shareholders with 25% equity; min issue: 10m shares; with min K 250,000 (US\$ 20,000) paid up capital; 3 years IFRS audited financial statements; Pre-tax profit last 3 years	Legal framework: Companies Act (1994) administered by the Patents and Companies Registration Office (PCRO); Since companies act does not specify accounting standards, Zambian Institute of Chartered Accountants (ZICA) formulate Zambian accounting standards or adhere to IFRS; Securities Act (1993) regulates the stock exchange, brokers and listed companies and administered by Securities Exchange Commission (SEC); Banking and Financial Services Act (1996) for all financial firms and banks administered by Bank of Zambia; Lusaka stock exchange (LuSE) Corporate Governance Code (2005)  Regulator: SEC, and self-regulatory LuSE. Bank of Zambia has full regulatory oversight of all financial institutions, Pension and Insurance Authority regulates pension funds	The Institute of Directors of Zambia (IoDZ)
<b>Namibia</b>		
3 listings tiers: (1) Main board (large caps); (2) Development board (SMEs); (3) Cross listed Criteria: Min 150 dispersed	Legal framework: Namibia Companies Act (2004); State-owned Enterprises governance Act (2006); Anti-Corruption Act (2003); Stock Exchange Control Act (1985-01); South African King I and II best practice guideline recommendations; "NamCode" Namibian	Institute of Directors of Southern Africa;

<p>shareholders, with 20% capital; min issue of 1m shares and N\$ 1m (US\$ 66,000); 3 years audited financial statements; Pre-tax profit N\$ 500,000 (US\$ 33,000)</p>	<p>Corporate Governance Code (2014)</p> <p>Regulator: Regulated by Namibian Financial Institutions Supervisory Authority (NAMFISA) in terms of the 1985 Stock Exchanges Control Act. However, the Stock Exchange has full regulation over listing requirements, compliance and market supervision</p>	<p>Institute of Chartered Accountants of Namibia</p>
<p><b>Mozambique</b> 2 listing tiers: (1) Main board and (2) SME market Criteria: Min 250,000 shareholders across 15% equity capital; min issue of MT 16m (US\$ 261,000); 3 years audited financial statements; Pre-tax profit</p>	<p>Legislative legal framework: Mozambican laws are regulated at a national level (centralized legislative power) and are enacted by parliament. The provinces do not have legislative power and as such Mozambique is not a federalized State. In the framework of the national administration, there are (i) laws that are enacted by parliament; (ii) decree-laws that are regulated by the Government with the authorization of the parliament; (iii) decrees passed by the Government and (iv) ministerial diplomas, autonomously issued by the ministries or jointly with others on matters of common interest and by the Assembly of the Republic</p> <p>Código Comercial (commercial code) which was approved by Decreto N° (decree law) 5/05 and changed by Decreto N° 2/09, which is based on a law of authorization of the Parliament; Industrial and Commercial Licensing Regulations, that were approved by Decreto N° 49/04 (which has been amended several times); Regulations on Industrial and Commercial Inspection were approved by Ministerial Diploma 199/04; Regulamento do Mercado de Valores Mobiliários, conforme disposto no Decreto N° 48/98 de 22 de Setembro, which also approved its internal regulations</p> <p>Regulator: The government corporate or securities regulator which oversee companies generally apart from the institutions mentioned above is the GEPE – Instituto de Gestão e Participações do Estado. This institution is the public companies regulator The Confederation of Business Associations (CTA) is a platform for dialogue between Government and Private Sector</p>	<p>Instituto de Directores de Moçambique</p>
<p><b>South Africa</b> Two segments are (1) Main board and (2) ALTx (SMEs) Criteria: Min 20% of capital amongst dispersed shareholders; min issue of 25m shares; R 50m (US\$ 3.3m) paid up capital; 3 years audited financial statements; Pre-tax profit R3m (US\$ 3.3m) for preceding 3 years</p>	<p>Legal framework: Corporate Law Amendment Act (2007); Companies Bill (2007); Securities Services Act (2005); King III best practice guideline recommendations</p> <p>Regulator: The Financial Services Board (FSB) is responsible for overseeing the regulation of the financial markets, such as the JSE and all financial institutions (insurers, brokers, etc.). This, however, excludes banking institutions, which fall directly under the responsibility of the South African Reserve Bank</p>	<p>Institute of Directors – South Africa</p>

Source: National stock exchange websites and regulatory agencies

**Appendix Table 3.** Institutional frameworks of African sample

Country	Ethnic groups	Religion	Languages
<b>North Africa</b>			
Algeria	0.3394 Arab (80%); Kabyle Berber (13%); Shawia Berber (6%); Other Berber (1%)	0.0091 Sunni Muslim (99.54%); Ibadiyah Muslim (0.39%); Other (0.07%)	0.4427 Arabic (official) (71.88%); French (lingua franca) (16.41%), Berber dialects (11.71%): Kabylie Berber (Tamazight), Chaouia Berber (Tachawit), Mزاب Berber, Tuareg Berber (Tamahaq)
Egypt	0.1836 Egyptian-Arab (89%); Coptic Christian (10%); Nubian (0.2%)	0.1979 Sunni Muslim (89%), Christian (Coptic) (10%)	0.0237 Arabic (official) (98.8%), other (1.2%) *English and French widely understood
Morocco	0.4841 Moroccan-Arab (59.66%); Berber (40%); French-European (0.33%)	0.0035 Sunni Muslim (99.83%)	0.4683 Arabic (official) (64.99%), Berber languages (33%) (Tamazight (official), Tachelhit, Tarifit); *French widely used
Tunisia	0.0394 Arab (98%), European (1%); Tunisia-other (1%)	0.0104 Sunni Muslim (99.48%)	0.0124 Arabic (official, one of the languages of commerce) (99.38%), French (commerce), Berber (Tamazight)
<b>East Africa</b>			
Kenya	0.8588 Kikuyu (22%), Luhya (14%), Luo (13%), Kalenjin (12%), Kamba (11%), Kisii (6%), Meru (6%), Kenya other African (15%)	0.7765 Traditional (30.29%); Protestant (28.21%); Catholic (19.55%); African Christian (8.21%); Muslim (6%); Anglican (5.60%)	0.8860 Kikuyu (20.89%); Luhya (13.84%); Luo (12.75%); Kalenjin (10.77%); Gusil (Kisii) (6.16%); Meru (5.47%); Nyika (Mijikenda) (4.78%); 21 other languages (14.07%). Note: English and Kiswahili (official)
Tanzania	0.7353 Mainland - African (99%) (of which 95% are Bantu consisting of more than 130 ethnicities); Zanzibar - Arab, African, mixed Arab and African *For calculation purposes: 8 principal major ethnicities identified	0.6334 Mainland - Christian (43.99%), Muslim (37%), Indigenous beliefs (19.01%) Zanzibar – (>99%) Muslim	0.8983 Nyamwesi (Sukuma) (21.1%); Swahili (8.84%); Hehet (6.89%); Chaga (Chagga) Pare (4.9%); Gogo (3.94%); Ha (3.43%); Haya (5.89%); Iramba (2.86%); Luguru (4.9%); Makonde (5.89%); Nyakusa (5.41%); Shambala (4.28%); Yao (2.44%). Note: English and Kiswahili (official)
Uganda	0.9302 Ganda (17.8%); Teso (8.9%); Nkole (8.2%); Soga (8.2%); Gisu (7.2%); Chiga (6.8%); Lango (6%); Rwanda (5.8 %)	0.6332 Catholic (44.55%), Protestant (39.24%), Sunni Muslim (10.55%); Other (5.66%)	0.9227 Luganda (18.9%); Gisu (Masaba) (4.5%); Nkole (Nyankole and Hororo) (10.72%); Acholi (4.42%); Lango (5.87%); Teso (6%); 23 other major languages (54.9%). Note: English (official) and Kiswahili (official)
Rwanda	0.3238 Hutu (80%), Tutsi (19%), Twa (1%)	0.5066 Catholic (65.01%), Traditional (25.03%); Protestant (8.99%), Muslim (0.97%)	0.0000 Kinyarwanda only (official) (93.2%), Kinyarwanda and other language(s) (6.2%), French (official) (0.1%), English (official) (0.1%), Kiswahili (0.02%)
Mauritius	0.4634 Indo-Mauritian (68%), Creole (27%), Sino-Mauritian (3%),	0.6385 Hindu (50.85%), Catholic (27.12%), Muslim (16.1%),	0.4547 Creole (70.63%), Bhojpuri (21.18%), French (3.46%), other (4.73%) incl.

	Franco-Mauritian (2%)	other Christian (5.93%)	English (official language spoken by < 1% of population)
Seychelles	0.2025 Creole (89.1%); Indian (4.7%); Malagasy (3.1%); Chinese (1.6%); European (1.5%)	0.2323 Catholic (86.59%), Protestant (10.6%), Hindu (2.4%), Muslim (1.6%)	0.1606 Seychellois Creole (official) (89.1%), English (official) (5.1%), French (official) (0.7%)
<b>West Africa</b>			
Nigeria	0.8505 Over 250 ethnic groups. The following are the most populous and politically influential: Hausa (21.3%); Yoruba (21.3%); Igbo (18%); Fulani (11.2%); Other-Nigeria (8.1%); Ibibio (5.6%); Kanuri (4.2%); Edu (4.2%); Tiv (2.2%); Ijaw (1.8%); Bura (1.7%); Nupe (1.2%)	0.7421 Muslim (42.98%), Traditional (18.98%); Protestant (14.92%); Catholic (8.91%); African Christian (6.73%); Anglican (5.11%); Other (3.08%)	0.8503 Fulani (11.28%); Hausa (21.35%); Igbo (Ibo) (18.02%); Yoruba (21.35%); Ibibio (5.06%); Kanuri (4.14%); Tiv (2.27%); Nupe (1.22%); Edo (3.41%); Bura (1.54%); Arabic (0.24%) Note: English, Yoruba and Hausa as official languages and lingua franca in addition to over 300 additional indigenous languages
BVRM (Cote d'Ivoire)	0.8204 Akan (19%); Foreign-workers (includes 130,000 Lebanese, 14,000 French and Burkinabe) (29%); Voltaic (Senufu, Lobi) (11%); Northern Mandes (17%); Krous (12%); Southern Mandes (10%); Lagoon (Ebrie) (5%); Dan (2.7%); Gagu (2.3%); Kewni (1.3%)	0.7551 Muslim (38.67%), Catholic (20.78%); Traditional (17.02%); Non-religious (13.45%); Protestant (5.32%)	0.7842 Akan (including Baule and Anyi) (30.04%); Gur ([Voltaic] including Senufo & Lobi) (11.7%); Kru (incl. Bete) (10.51%); Malinke (incl. Dioula & Bambara) (11.45%); Southern Mande (incl. Dan & Guro) (7.7%). Note: French (official), 60 indigenous languages of which Dioula is the single most widely spoken
Ghana	0.6733 Akan (52.4%); Mossi (15.8%); Ewe (11.9%); Ga-Adangme (7.8%); Other Ghana (7.5%); Gurma (3.3%); Yoruba (1.3%)	0.7987 African Christian (29.39%), Protestant (20.07%); Traditional (17.56%); Catholic (14.7%); Muslim (14.39%)	0.6731 Akan [incl. Asante (14.8%), Fante (9.9%), Boron (Brong) (4.6%), Dagomba (4.3%), Dangme (4.3%), Dagarte (Dagaba) (3.7%), Akyem (3.4%), Ga (3.4%), Akuapem (2.9%)] (52.43%); Ewe (11.88%); Ga-Adangme (7.78%); Gurma (3.33%); Mole-Dagbani (Moore) (15.82%). Note: English & Hausa are official
Cape Verde Is.	0.4174 Creole (71%), African (28%), European (1%)	0.0766 Catholic (96.01%), Protestant (3.99%)	0.0000 Portuguese (official), Crioulo (a blend of Portuguese and West African languages)
Sierra Leone	0.8191 Temne (30%), Mende (29%), Limba (6%), Kono (2.6%), Kuanko (2.3%); Sherbro (2%); Kriole (2%), Fulani (1.7%); Loko (1.7%); Susu (1.7%); Mandinka (1.3%); Kissi (1.3%)	0.5395 Sunni Muslim (60.04%), Indigenous beliefs (30.02%), Christian (9.94%),	0.7634 Temne (principal vernacular in the north) (31.74%); Mende (principal vernacular in the south) (34.61%); Limba (8.41%); Bullom-Sherbro (3.82%); Fulani (3.82%); Kissi (2.29%); Kono-Vai (3.16%); Kuranko (3.44%); Susu (1.53%); Yalunka (3.44%); other (1.72%) Note: English (official, regular use limited to literate minority) and Krio (Freetown area)
<b>Southern Africa</b>			
Botswana	0.4102 Tswana (or Setswana)	0.5986 African Christian (28.21%),	0.4110 Setswana (75.44%), Shona (12.44%);

	(75.5%), Shona (12.4%); Other Botswana (4.9%); San-Kalahari (3.4%); Kjoikhooin (2.5%); Ndebele (1.3%)	Protestant (12.82%); Catholic (3.85%); Badimo (6%), other (1.4%), none (20.6%)	San-Kalahari (3.49%); Khoekhoe (hottentot) (2.47%); Ndebele (1.27%). Note: English and Setswana official
Malawi	0.6744 Chewa-Maravi (50%), Lomwe (20%), Yao (15%), Ngoni (1%), Tumbuka (11%), Sena (3%)	0.8192 Presbyterian (21%); Muslim (20%); Catholic (18%); Traditional (10%); African Christian (9.91%); other (21%)	0.6023 Chichewa (58.38%), Lomwe (18.4%); Chiyao (13.2%); Ngoni (6.65%); other (incl. Chinyanja, Chitumbuka, Chilomwe, Chinkhonde, Chingoni, Chisena, Chitonga, Chinyakyusa, Chilambya) (3.37%). Note: English official
Zambia	0.7808 Bemba (37%), Tonga (19%), Lunda (12%); Other-Zambia (12%); Nyanga (11%); Lozi (7%); Lamba (2%)	0.7359 Traditional (27.04%); Protestant (22.86%); Catholic (16.91%); other (includes Muslim Buddhist, Hindu, and Baha'i) (33.19%)	0.8734 Bemba (23.75%); Nyanja (20.83%); Tonga (8.75%); Lozi (Barotse) (5.08%); Nsenga (3.42%); Tumbuka (2.33%); Kaonde (1.83%); Lala (1.92%); Lamba (1.75%); Lunda (1.58%); Luvale (Luena) (1.42%); 10 other languages (15.17%). Note: English and Bemba are official. Zambia has over 70 languages, although many are considered dialects
Namibia	0.6329 Ovambo (58.6%); Kavango (8.8%); Herero (7%); Damara (6.6%); European-origin (5%); Nama (4%); Caprivians (3%); Colored (3%); San-Kalahari (2%); Basters (2%)	0.6626 Protestant (51.38%); Catholic (16.54%); African Christian (7.06%); Anglican (5.53%); other (incl. traditional) (19.48%)	0.7005 Ovambo (Ambo [Kwanyama]) (50.62%); Nama (12.47%); Kavango (Okavango) (9.71%); Herero (8.01%); Afrikaans (9.48%); Caprivi 94.68%); German (0.90%); English (0.80%) San-Kalahari (1.92%); Setswana (0.45%). Note: English is lingua-franca
Mozambique	0.6932 Makua (47.3%); Tsonga (23.3%); Chewa (12%); Shone (11.3%); Yao (3.8%); Swahili (0.8%); Other-Mozambique (0.7%); Makonde (0.6%); Portuguese (0.2%)	0.6759 Traditional (47.02%); Muslim (28.22%); Catholic (11.57%); Protestant (9.16%); other (4.03%)	0.8125 Chuabo (4.73%); Lomwe (5.71%); Makua (19.77%); Sena (5.28%); Tsonga (Changana) (8.59%); Other Bantu (24.81%); Portuguese (4.88%); other Mozambican (26.83%). Note: Portuguese is official language
South Africa	0.7517 Other-African (44%); Zulus (13%); White (13%); Xhosa (10%); Coloured (8.5%); Tswana (4.44%); Asians (2.5%); Sotho (2.27%); Swazi (2.27%)	0.8603 Christian (27.97%); Protestant (13.71%); Dutch Reformed (4.95%); other Protestant (8.84%); Methodist (2.46%); Catholic (3.2%); Not Stated (12.5%); 26 others (27%)	0.8652 IsiZulu (official) (22.61%), IsiXhosa (official) (17.74%), Afrikaans (official) (14.33%), English (official) (8.52%), Sepedi (official) (9.1%), Setswana (official) (8%), Sesotho (official) (7.6%), Xitsonga (official) (4.5%), siSwati (official) (2.5%), Tshivenda (official) (2.4%), isiNdebele (official) (2.1%)

Source: Compiled by authors from NSD Macrodata (Norway) for ethnic, religious and linguistic diversity data and measure is sourced using methodology and assumptions outlined in Alesina et al. (2003); This table details the individual ethnic, religious and linguistic groups constituent to each African country included in our sample alongside the final measure of fractionalization for that nation which is based on this data

**Appendix Table 4. Worldwide comparison of indices**

Table documenting comparison of indices and selected sub-component indices. All indices standardized and rebased on a 0-1 scale

	Legal family	WGI Aggregate	Tribalism Index
<b>North America</b>			
Canada	English common law	0.90390	0.0969
United States	English common law	0.80588	0.1972
<b>Western Europe</b>			
Austria	German civil code	0.87460	0.2070
Belgium	French civil code	0.82316	0.1793
Denmark	Scandinavian civil code	0.92337	0.0022
Finland	Scandinavian civil code	0.94849	0.0265
France	French civil code	0.78721	0.2415
Germany	German civil code	0.88930	0.1263
Greece	English common law	0.58264	0.5768
Iceland	Scandinavian civil code	0.86536	0.1486
Ireland	English common law	0.87631	0.2124
Italy	French civil code	0.63155	0.5405
Luxembourg	French civil code	0.91615	0.1050
Macedonia	French civil code	0.55497	0.6093
Malta	English common law	0.77302	0.4163
Netherlands	French civil code	0.91652	0.0866
Norway	Scandinavian civil code	0.93091	0.0569
Portugal	French civil code	0.74394	0.3322
Spain	French civil code	0.70601	0.3790
Sweden	Scandinavian civil code	0.92552	0.0370
Switzerland	French civil code	0.94487	0.0570
United Kingdom	English common law	0.86302	0.1406
<b>Eastern Europe and former Soviet Union</b>			
Albania	French civil code	0.51969	0.6768
Armenia	French civil code	0.46788	0.6778
Azerbaijan	French civil code	0.36447	0.7592
Belarus	German civil code	0.36920	0.6702
Bulgaria	German civil code	0.55390	0.5965
Croatia	German civil code	0.62717	0.5143
Cyprus	English common law	0.75853	0.3681
Czech Republic	German civil code	0.73386	0.4486
Estonia	German civil code	0.80484	0.2572
Georgia	French civil code	0.61706	0.4527
Hungary	German civil code	0.64556	0.4870
Kazakhstan	German civil code	0.41709	0.7542
Kyrgyzstan	German civil code	0.35045	0.7790
Latvia	German civil code	0.70534	0.4320
Lithuania	German civil code	0.72813	0.3973
Moldova	German civil code	0.46447	0.7024
Poland	German civil code	0.72690	0.3629

Slovenia	French civil code	0.71935	0.3723
Slovakia	German civil code	0.69079	0.5009
Tajikistan	German civil code	0.30044	0.8207
Ukraine	German civil code	0.34778	0.7677
Uzbekistan	German civil code	0.26463	0.8673
Turkmenistan	German civil code	0.22662	0.8794
Romania	French civil code	0.56729	0.5480
Russia	German civil code	0.37245	0.7586
<b>Asia &amp; Oceania</b>			
Afghanistan	English common law	0.18862	0.9639
Australia	English common law	0.89697	0.1206
Bangladesh	English common law	0.34857	0.7857
Brunei Darussalam	English common law	0.66230	0.3715
Cambodia	French civil code	0.36142	0.8516
China	German civil code	0.42055	0.6277
India	English common law	0.46357	0.6295
Indonesia	French civil code	0.47816	0.6795
Japan	German civil code	0.84356	0.1989
Korea, Republic of	German civil code	0.70148	0.4332
Nepal	English common law	0.37369	0.7503
New Zealand	English common law	0.95368	0.0000
Malaysia	English common law	0.63938	0.5004
Maldives	English common law	0.49426	0.7008
Mongolia	German civil code	0.51023	0.6497
Singapore	English common law	0.88318	0.0616
Sri Lanka	English common law	0.46759	0.6418
Pakistan	English common law	0.29390	0.7411
Papua New Guinea	English common law	0.41077	0.7837
Philippines	French civil code	0.48289	0.6760
Thailand	English common law	0.45818	0.6602
Vietnam	French civil code	0.41307	0.7127
<b>Middle East &amp; North Africa</b>			
Algeria	French civil code	0.32955	0.6788
Bahrain	English common law	0.51272	0.5554
Chad	French civil code	0.22753	0.8642
Egypt	French civil code	0.31553	0.6900
Eritrea	French civil code	0.18645	0.8600
Iraq	English common law	0.19519	0.8990
Iran	Islamic law	0.29631	0.7670
Israel	English common law	0.68279	0.3492
Jordan	English common law	0.50553	0.5137
Kuwait	English common law	0.48443	0.5769
Lebanon	French civil code	0.35453	0.7629
Libya	French civil code	0.13246	0.9044
Mauritania	French civil code	0.33568	0.7491
Morocco	French civil code	0.46446	0.6347

Oman	English common law	0.57265	0.5327
Qatar	English common law	0.65777	0.2954
Saudi Arabia	English common law	0.46375	0.5179
Somalia	French civil code	0.02271	1.0000
Sudan	Islamic law	0.15841	0.9471
Syria	French civil code	0.12530	0.8961
Tunisia	French civil code	0.46839	0.6034
Turkey	German civil code	0.50023	0.5668
United Arab Emirates	English common law	0.67571	0.2547
Yemen	English common law	0.19171	0.8901
<b>Sub Saharan Africa</b>			
Angola	French civil code	0.29167	0.8737
Benin	French civil code	0.44901	0.6496
Botswana	English common law	0.67256	0.3436
Burkina Faso	French civil code	0.40718	0.6263
Burundi	French civil code	0.30020	0.8674
Cameroon	French civil code	0.30965	0.7936
Cape Verde	French civil code	0.63967	0.4043
Central African Republic	French civil code	0.14146	0.8186
Equatorial Guinea	French civil code	0.19564	0.8858
Ethiopia	French civil code	0.34231	0.6996
Ghana	English common law	0.52324	0.5676
Gambia	English common law	0.37830	0.7404
Gabon	French civil code	0.39916	0.6925
Guinea	French civil code	0.27663	0.7961
Guinea Bissau	French civil code	0.24100	0.8857
Kenya	English common law	0.39603	0.7895
Lesotho	English common law	0.48458	0.5695
Liberia	English common law	0.34829	0.6719
Madagascar	French civil code	0.35183	0.7737
Malawi	English common law	0.43264	0.7074
Mali	French civil code	0.34204	0.7178
Mauritius	French civil code	0.72113	0.4561
Mozambique	French civil code	0.40366	0.7655
Namibia	English common law	0.59030	0.4915
Niger	French civil code	0.36854	0.6941
Nigeria	English common law	0.25892	0.7814
Rwanda	French civil code	0.51924	0.4583
Sierra Leone	English common law	0.35852	0.7425
Senegal	French civil code	0.50708	0.5865
South Africa	English common law	0.57625	0.5756
Swaziland	English common law	0.39559	0.6274
Tanzania	English common law	0.41670	0.7046
Togo	French civil code	0.33986	0.7350
Uganda	English common law	0.38253	0.7941
Zambia	English common law	0.46504	0.6539
Zimbabwe	English common law	0.22713	0.8460

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<b>Latin America &amp; Caribbean</b>			
Argentina	French civil code	0.43720	0.6623
Barbados	English common law	0.76328	0.2405
Belize	English common law	0.47226	0.6537
Bolivia	French civil code	0.39215	0.7026
Brazil	French civil code	0.51638	0.6142
Chile	French civil code	0.79857	0.2482
Costa Rica	French civil code	0.67909	0.4205
Colombia	French civil code	0.46870	0.6577
Cuba	French civil code	0.41198	0.5320
Dominican Republic	French civil code	0.47598	0.7242
Ecuador	French civil code	0.38654	0.7056
El Salvador	French civil code	0.50342	0.6490
Grenada	English common law	0.60066	0.4511
Guatemala	French civil code	0.39035	0.7449
Guyana	English common law	0.44732	0.7147
Haiti	French civil code	0.26227	0.8672
Honduras	French civil code	0.37989	0.7486
Jamaica	English common law	0.53550	0.6098
Mexico	French civil code	0.47341	0.7173
Nicaragua	French civil code	0.40431	0.7747
Panama	French civil code	0.55608	0.6449
Paraguay	French civil code	0.40337	0.7698
Peru	French civil code	0.47765	0.6557
Suriname	French civil code	0.49562	0.6250
Trinidad and Tobago	English common law	0.54518	0.6288
Uruguay	French civil code	0.72516	0.2194
Venezuela	French civil code	0.21402	0.8781

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