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Foreign Bank Assets and Presence on Banking Stability in Africa: Does Strong and Weak Corporate Governance Systems under different Regulatory Regimes Matter?

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Abstract

This study examines the effect of foreign bank assets and presence on banking stability in the economies with strong and weak country-level corporate governance in Africa between 2006 and 2015. Employing a Prais-Winsten panel data model on 86 banks in about 30 African economies, the findings on how foreign bank assets and presence influence banking stability in strong and weak corporate governance economies under different regulatory regimes are reported for the first time in Africa. The initial findings show that foreign bank presence and assets promote banking stability. However, the positive effect of foreign bank assets and presence is enhanced in economies with strong country-level corporate governance, while the positive effect of foreign bank assets and presence is weakened in economies with weak country-level corporate governance. After introducing different regulatory variables (regimes), it is observed that the enhancing effect of foreign bank presence and assets on banking stability in the full sample and economies with strong and weak country level corporate governance systems is deepened or improved under loan loss provision regulation regime. However, under the private and public sector-led financial transparency regulations, the reducing effect of foreign bank presence and assets on banking stability in economies with weak corporate governance systems is further dampened. These findings show that the relationship between foreign bank presence and assets is deeply shaped by corporate governance systems and regulatory regimes in Africa. Hence, policymakers must build strong corporate governance and sound regulatory regimes to enhance how foreign bank operations promote banking stability.

Keywords: Stability; Foreign banks; Regulation, Corporate governance; Africa

JEL Codes: G0; G2; G3

Introduction

Existent literature advance that foreign bank operations (assets and presence) have implications for banking operations and activities. For instance, prior studies show that foreign bank assets and presence serve as diversification mechanism and aids the introduction of new sophisticated innovations that translate into enhanced competition and banking stability (Lee and Hsieh, 2014; Vogel and Winkler, 2012; 2010; Hass and Lelyveld, 2006; Hull, 2002). Specifically, Crystal, Dages and Goldberg (2002) report that foreign banks have a more aggressive response to dealing with deteriorating assets and greater risk absorption capacity which promotes stability in the banking system of Latin America. Interestingly, existent literature on foreign banks in developing economies have largely focused on how foreign bank assets and presence influence banking efficiency and competition (Hass and Lelyeveld, 2006; Claessens, Demirguc-Kunt and Huizinga, 2001; Berger, DeYoung, Genav and Udell, 2000b) with these studies mainly studying the "global advantage and home field advantage hypothesis." While the "global advantage hypothesis" advance that foreign banks generally have competitive benefits relative to their domestic counterparts, "home field advantage hypothesis" states that domestic banks have more insights into and knowledge on the dynamisms in the local markets which creates some benefits for them. However, the effect of foreign bank assets and presence on banking stability in Africa is limited (see Motelle and Biekpe, 2015; Vogel and Winkler, 2010) and yet to be studied.

Moreover, with prior studies showing that weak corporate governance and laxity in supervision and regulations contributed to the 2007-2009 global financial instability (Jagannathan, Kapoor and Schaumburg, 2013; Mazumder and Ahmed, 2010; Poole, 2010; Crotty, 2009; Carmassi, Gros and Micossi, 2009), it is clear that corporate governance and regulations help shape banking stability and its related factors. For instance, prior studies (Tunay and Yuksel, 2017) show the strong country-level corporate governance and tight regulations influence the operations of foreign banks in developing economies. The argument is that a strong country-level corporate governance system tames political interventions and increases transparency (Tunay and Yuksel, 2017; Ho, Lin and Tsai, 2015) which are all recipes for promoting the effect of foreign bank assets and presence on banking stability. Additionally, corporate governance systems tend to protect the interest of foreign investors (foreign bank investors) and boost investor confidence (Appiah-Kubi, Mansoor, Zaganjori, Sahatqija and Malec, 2020; Shapiro, Tang, Yang and Zhang, 2013; Globerman, Shapiro and Tang, 2006; Jones and Pollitti, 2004), and hence leads to improved banking stability. While these arguments are intuitively sound and empirically tested in Europe,

America and Asia, empirical evidence on the existence of such interrelationship among foreign bank assets and presence, corporate governance and regulations on banking stability is yet to be studied in Africa.

From the above, it is clear that the interrelationship among foreign bank activities (assets and presence), corporate governance and regulations on banking stability is supported by empirical and intuitive reasoning, yet studies that investigate these interrelationships are non-existent especially in Africa. It is against this background that this study attempts to provide evidence on how foreign bank assets and presence affect banking stability in strong and weak country-level corporate governance systems under different regulatory regimes because different regulatory variables (regimes) may yield different outcomes (see Leuz and Wysocki, 2016; Edwards and Waverman, 2006). There are three main or key contributions to the best of authors knowledge in relation to the extant literature and contributions include; (i) provide evidence on how foreign banks assets and presence affect banking stability in Africa for the first time; (ii) assess evidence on the effect of foreign bank assets and presence on banking stability in strong and weak country-level corporate governance economies in Africa for the first time and (iii) examine evidence on how different regulatory regimes (variables) influence this interrelationship among foreign bank assets and presence and corporate governance on banking stability in Africa for the first time. The rest of the paper is organized into: overview of banking stability, regulations, foreign banks and corporate governance in Africa, literature review, methodology, empirical results and conclusions and policy implications.

Overview of Banking Stability, Regulations, foreign banks (assets and presence) and corporate governance in Africa

This section presents an overview on the key variables used in this study. From Table 1, yearly trends in banking stability (Z-Score), foreign bank assets (FBA), foreign bank presence (FBP), private sector-led transparency regulation (PrSLFTR), public sector-led transparency regulation (PuSLFTR), loan loss provision regulation (LLPR), country-level corporate governance (CLCG), shareholder suit index (ESHS), extent of director liability index (ExDL), extent of disclosure (ExD), strength of investor protection (SIP) and extent of business disclosure (ExBD) in Africa. Banking stability is represented with z-score which indicates a bank's distance away from experiencing financial distress. In terms of corporate governance, this study follows prior studies (Appiah-Kubi et al., 2020; Hillier, Pindado, Queiroz and Torre, 2011) that employed five country-level corporate governance structure indexes obtained from Doing Business Database while regulations are measured using loan loss provision, private and public sector-led financial transparency

regulations. Financial transparency regulation is measured as the percentage of adult population who have their credit information mandatorily stored and shared among lenders through private (private credit bureaus (PrSLFTR) and public (public credit registries (PuSLFTR)) information sharing institutions. Also, the average country level corporate governance (CLCG) is reported and computed as the year average of all the five corporate governance indicators and higher values of corporate governance indicators are preferred. All the country level corporate governance indexes are scaled over 10 with the exception of SIP which is scaled over 25.

Table 1: Trends in Banking Stability, Foreign Bank Assets, Presence, Financial Sector Transparency Regulation and Corporate Governance in Africa

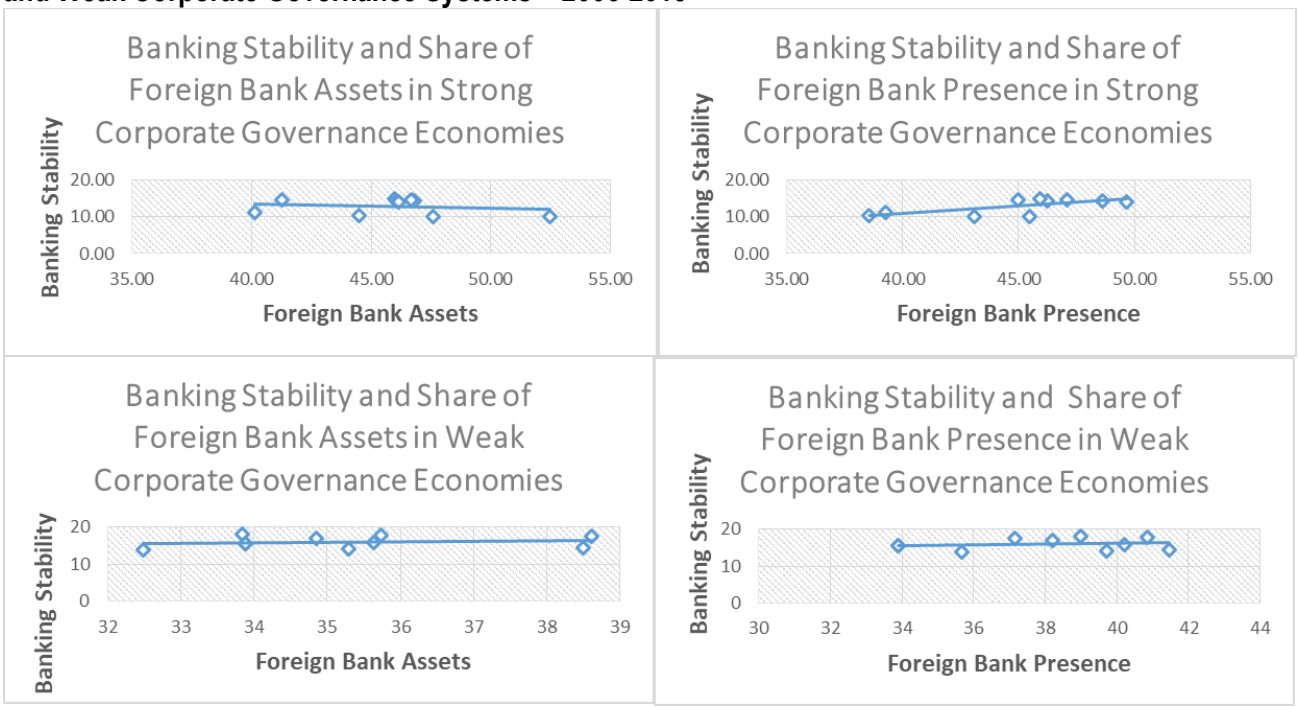
Years	Z-Score	FBA	FBP	PrSLFTR	PuSLFTR	LLPR	CLCG	ESHS	ExDL	ExD	SIP	ExBD
2006	13.46	40.76	38.53	19.70	2.42	6.45	7.70	6.44	5.13	5.13	16.69	5.13
2007	13.94	41.71	37.86	20.24	2.81	4.57	7.49	6.21	4.91	5.07	16.18	5.07
2008	13.76	41.08	40.58	20.05	3.99	5.14	7.45	6.33	5.22	4.71	16.32	4.69
2009	14.23	43.15	42.24	18.21	4.74	5.62	7.63	6.29	5.48	4.70	16.52	5.14
2010	14.93	41.64	41.30	19.45	5.82	4.94	7.90	6.28	5.71	5.14	17.19	5.19
2011	14.22	40.73	42.29	19.16	5.94	4.51	7.94	6.26	5.70	5.25	17.27	5.25
2012	14.54	41.99	43.61	20.30	6.32	7.15	8.11	6.57	5.64	5.32	17.60	5.41
2013	14.46	40.05	43.65	20.91	6.64	6.25	8.17	6.64	5.58	5.45	17.74	5.45
2014	14.77	41.78	43.67	21.06	6.68	5.04	8.29	6.73	5.71	5.47	17.99	5.54
2015	15.10	40.94	43.71	25.86	7.39	3.97	8.39	6.87	5.71	5.51	18.13	5.74
Average	**14.34**	**41.45**	**41.42**	**20.50**	**5.27**	**5.37**	**7.91**	**6.46**	**5.48**	**5.17**	**17.16**	**5.26**

Source: Computed by authors based on data from World Development Indicators, Global Finance Development and Doing Business Databases – Note: banking stability (z-score), foreign bank assets (FBA), foreign bank presence (FBP), private sector-led financial transparency regulation (PrSLFTR), public sector-led financial transparency regulation (PuSLFTR), ease of shareholder suit index (ESHS), extent of Disclosure index (ExD), extent of director liability index (ExDL), strength of investor protection (SIP) and extent of business disclosure (ExBD)

From Table 1, average period banking stability is reported to be 14.34 implying that banks over the period under study are about 14.34 points away from financial distress. Also, banking stability appears to be fairly unstable given its fluctuations in 2008, 2011 and 2013. Similarly, foreign bank assets and presence reported an average of 41.45% and 41.42% implying that foreign bank assets constituted 41.45% of total banking assets over the period under review while foreign banks constituted 41.42% of total banks in Africa over the periods under review. This provides evidence that local banks in Africa dominate the banking sector of Africa. In terms of financial sector transparency an average of 20.50% and 5.27% are reported indicating that mandatory financial regulation on transparency led by the private and public sectors covers 20.50% and 5.27%, respectively. This shows that private sector-led financial transparency regulation is

more vibrant and covers a wider space compared to public sector led financial transparency regulation in Africa. Moreover, public sector-led transparency regulation has consistently increased for the period under review. Also, loan loss provision presents a period average of 5.37% implying that banks over the period under review allocated 5.37% of their total loans as provisions for loan losses. Considering to country-level corporate governance, an overall country-level corporate governance index of 7.91 is reported while a stable and steady increase in the overall country level corporate governance index is observed. Specifically, ease of shareholder suit index (ESHS), extent of disclosure index (ExD), extent of director liability index (ExDL), strength of investor protection (SIP) and extent of business disclosure (ExBD) reported period average indexes of 6.46, 5.48, 5.17, 17.16 and 5.26, respectively. These are indications that country-level corporate governance in Africa is fairly strong given the periods under review.

Figure 1: Relationship between Banking Stability and Foreign bank (Assets and Presence) in Strong and Weak Corporate Governance Systems – 2006-2015



Source: *Graphed by authors based on data from World Development Indicators, Global Finance Development and Doing Business Databases*

To enhance understanding on the relationship between banking stability and foreign bank assets and presence in strong and weak corporate governance economies in Africa, Figure 1 is reported. Interestingly, Figure 1 graphically shows that banking stability has a positive association with banking presence and assets in weak corporate governance economies in Africa. However, in economies with strong corporate governance systems in Africa, a negative association is identified between banking stability and foreign

bank assets while a positive association is reported between banking stability and foreign bank presence in strong corporate governance economies. Given the difference observed in graphical evidence on the association between banking stability and foreign banks assets and presence in weak and strong corporate governance economies, there is an urgent need for further analysis using more advanced techniques to investigate this interrelationship.

Literature Review: Theoretical

In terms of theoretical and conceptual underpinnings, this study draws inspirations from a number of theories and concepts including institutional, regulatory foreign bank ownership theories and concepts. First, corporate governance is explained and stems from institutional theories. According to the institutional theories literature, institutional theories explain how companies operate and obtain their social, political and economic legitimacy in a given economy (Zucker, 1987). Thus, institutions provide rules and define the appropriate operational guidelines that discourage inappropriate corporate behavior and the same time encourage acceptable corporate behavior (Peters, 2000). In the same vein, corporate governance systems also provide a framework that guides corporate dealings and protects the investors and the public at large. Furthermore, Scott (1987) states that in addition to the cognitive and normative pillars of institutional theories, there is also a regulative pillar of institutional theories which focuses on how institutions regulate and are regulated.

According to the attendant literature, two main theories explain regulations: the public interest theory of regulations and private interest theory of regulations (Hertog, 2012; Gaffikin, 2005). While the public interest theory of regulations advances that regulations seek to protect and benefit the public at large in terms of best possible allocation of scarce resources for collective and individual goods (Hantke-Domas, 2007), the private interest theory of regulations argues that regulations promote the interest of dominant individuals and groups in society but not the public interest (Gaffikin, 2005). From the theories of regulations, it can be inferred that regulations generally improve and shape banking stability and foreign investor interest.

In terms of foreign banks literature, Lee and Hsieh (2014) advance that there is no comprehensive theory of multinational banking theory especially in emerging markets or transition economies. However, Berger, DeYoung, Genav and Udell (2000b) advance the “global advantage” and “home field advantage”

hypothesis. Interestingly, the "global advantage hypothesis" states that foreign banks have competitive advantage given that they employ more advanced and sophisticated technologies have higher capital adequacy and risk management techniques. These tend to make foreign banks more competitive and stable compared to their domestic counterparts. On the contrary, the "home field advantage hypothesis" states that foreign banks may be disadvantaged as domestic banks have a good and comprehensive understanding of the local banking market and by extension, customer information and knowledge. The underlying provides an indication that the operations of foreign banks affect the domestic banking system and offer the opportunity to strengthen the stability of the domestic banking market.

Literature Review: Empirics

Existent literature on foreign banks in Africa has largely focused on how foreign banks influence banking efficiency and competitiveness (Kiyota, 2011; Chen 2009). However, how foreign bank assets and presence influence banking stability in African economies with strong and weak country-level corporate governance systems under different regulatory regimes is practically nonexistent in the literature. Hence, this empirical review will focus on studies which have examined how foreign bank activities influence banking industry outcomes with emphasis on the role of country-level corporate governance, institutional quality and regulations.

More recently, Wang and Sui (2019) studied the effect of political institutions in host economies on the risk-taking behavior of foreign banks in emerging markets. Employing a panel of 500 banks across 35 Asian, Central Europe and Latin American economies between 2000 and 2013, they show that democracy of political institutions boosts foreign bank stability. However, democratic institutions derail foreign banks established through mergers and acquisitions, financial institutions with short operational history and inefficient operations in host economies. Interestingly, while the positive effect of political institutions on banking stability is undermined by deposit insurance system in the host country, sound legal institutions in the host country strengthen the effect of political institutions on banking stability. Also, Tunay and Yuksel (2017) examined the effect of corporate governance on foreign bank ownership in developing economies. Employing annual country level data covering 65 developing economies in a dynamic generalized method of moments model, they report that a strong relationship exists between foreign bank operations and corporate governance at the country level. Specifically, governance factors such as corruption control, political stability, rule of law and flexibility in legal regulations affected foreign bank operations. Again, the

operations of foreign banks are stronger in economies with low poverty, high political stability and efficient legal systems.

Likewise, Haas, Korniyenko, Pivovarsky and Tsankova (2015) evaluated how bank ownership and the Vienna Initiative impacted credit growth during the Great Recession. Employing both panel and cross-sectional techniques on about 350 banks between 1999 and 2011, they report that both foreign and domestic banks significantly reduced their credit extension during the crisis. However, foreign banks that participated in the Vienna Initiative were relatively stable lenders compared to their domestic counterparts. Moreover, Lee and Hsieh (2014) studied the effect of foreign bank ownership on banking stability under different banking reforms using banks in Asian countries. Employing the dynamic generalized method of moments on panel data from 1387 banks across 27 Asian economies between 1995 and 2009, they report evidence in support of the "home field advantage hypothesis", although evidence of the "global advantage hypothesis" exist when considering the effect of banking reforms. Also, an inverted U-shape is observed from foreign bank ownership to stability indicating that beyond a certain threshold, foreign bank ownership may derail banking stability, while a higher degree of credit control liberalization mitigates the dampening effect of foreign bank ownership on banking stability. However, liberalization of interest rate control and banking supervision significantly enhance banking stability.

More so, Detragiache and Gupta (2006) also compared the performance of foreign and domestic banks in Malaysia during the Asian crisis. Employing the difference in difference model on 43 Malaysian banking institutions between 1995 and 2001, they found that differences existed among foreign banks in Malaysia. That is, foreign banks with strong regional concentration suffered from the crisis as much as domestic banks while foreign banks with less concentration in Asia performed better significantly. The difference in performance was not explained by availability of support from a parent company, likelihood of being bailed out or political connections but rather by theories on managerial herding. Furthermore, Crystal, Dages and Goldberg (2002) examined the performance of foreign and domestic banks using banks in Latin America between 1995 and 2000. Using a broad range of quantitative methods such as agent ratings and composite indexes based on CAMEL (i.e. Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity), they show that foreign banks differ from domestic banks. That is, foreign banks are more aggressive in responding to deteriorating asset quality and loan growth and have greater loss absorption capacity which could help strengthen the financial system of their host countries. Finally, Demirguc-Kunt,

Levine and Min (1998) investigated how foreign bank activities influence banking efficiency, likelihood of banking crisis and economic growth. Employing bank level data covering banks across 80 economies between 1988 and 1995 in weighted least squares pooled models, they show that foreign bank activity lowers the chance of a banking crisis, improves banking efficiency and accelerates long run economic growth through enhanced domestic banking efficiency.

From the literature review, it is clear that the relationship between foreign bank operations and banking stability is a preposition too obvious for a serious debate especially in Asia, Europe and America. However, what is nonexistent and calls for empirical investigation is how foreign banks influence banking stability in the context of Africa. With prior studies showing that corporate governance, political institutions and regulations shape foreign bank operations and banking stability and no such study in Africa, it is intuitive to argue and examine how foreign bank operations affect banking stability in strong and weak corporate governance systems in Africa under different regulatory regimes. The study hypothesizes that while foreign banks may promote banking stability, the effect may be enhanced and weakened in African economies' strong and weak country-level corporate governance systems. Additionally, these effects of foreign bank operations on banking stability in strong and weak corporate governance African economies may further be improved under different regulatory regimes knowing from prior studies (see Leuz and Wysocki, 2016; Edwards and Waverman, 2006) that regulations can enhance financial and economic outcomes. While these hypotheses are strongly rooted in theoretical and empirical reasoning, there is no empirical evidence to substantiate these claims. Hence, the need for this study.

Methodology and Data

In this study, a panel data technique is employed to shed insights into the interrelationship among foreign banks assets and presence, corporate governance and regulatory regimes and banking stability in Africa. The data covers 86 banks across 30 economies in Africa between 2006 and 2015. Bank level data is sourced from BankScope, while country-level bank data is sourced from Global Finance Database. Additional macroeconomic data is obtained from the World Development Indicators database. Following the structure and nature of the data, the panel data approach is used to estimate the results. Baltagi (2015; 2008) states that the panel data provides more robust and convincing results given that it captures and reports both entity and time dimensions of data unlike the cross sectional and time series which report only

the entity and time dimensions of data, respectively. Also, the panel data technique is able to control for omitted variables (Imbens and Wooldridge, 2009) and is expressed as:

$$Y_{it} = \alpha_i + \gamma_t + \beta X_{it} + \varepsilon_{it} \quad \text{.....(Eq 14.1)}$$

$\varepsilon_{it} = \alpha_i + \gamma_t + e_{it}$: α_i = bank fixed effectγ_t = time fixed effect e_{it} =*idiosyncratic term*

where: subscript i denotes the cross sectional dimension (bank) i =1. . . *N* and t reflects the time series dimension (time), t=1…T; *Yit* is the dependent variable; α_i is scalar and constant term for all periods (t) and specific to a bank fixed effect (*i*); γ_t is the time fixed effect t; *β is a k*×1 vector of parameters to be estimated on the independent variables for the explanatory variables; *Xit is a 1*× k vector of observations on the independent variables comprising of independent variables in the model which includes controlled variables and *Ɛit* which is iid is the error term. This study employs the Prais-Winsten estimation technique to control for autocorrelation and heteroscedasticity after following a series of standard econometric procedures. First, the Breusch_Pagan Lagrangian multiplier test (see Appendix 1) is used to justify the selection between ordinary least square (OLS) and generalized least square (GLS) (random effect) while the Hausman specification test (see Appendix 2) is used to justify the selection between random and fixed effect models. While the Breusch_Pagan Lagrangian multiplier test suggests evidence in support of using GLS models, the Hausman specification test provides evidence in favor estimating the results with fixed effects models. However, given evidence of autocorrelation and heteroscedasticity in the data, the Prais-Winsten regression which is a GLS estimation technique is employed to control for autocorrelation and heteroscedasticity (Prais-Winsten, 1945).

In modelling banking stability, this study follows prior studies (Ozili, 2018; Fernandez et al., 2016; Beck et al., 2013) that have assessed banking stability in Africa. In equations 2, the effect of foreign bank operations (assets and presence) on banking stability with country-level corporate governance as an independent variable but without financial regulation variables (regimes) considerations while in equations 3, the effect of foreign bank operations (assets and presence) on banking stability in strong and weak country-level corporate governance economies in Africa without corporate governance and financial regulatory regimes as independent variables. Furthermore, in equations 4, the effect of foreign bank operations (assets and presence) on banking stability with country-level corporate governance and financial regulation variables (regimes) as independent variables in the model while in equations 5, the effect of foreign bank operations (assets and presence) on banking stability in strong and weak country-level

corporate governance economies in Africa without country level corporate governance as independent variable but with and financial regulatory regimes as an independent variable. These models are estimated to highlight the effect of foreign bank operations (assets and presence) in strong and weak country level corporate governance and under different regulatory regimes in Africa.

$$\boldsymbol{ZSCORE_{i,t}=}\ \beta_0 + \boldsymbol{\beta_1 FOREIGNBANK_{i,t}} + \boldsymbol{\beta_2 CLCG_{j,t}} + \beta_3 NIM_{i,t} + \beta_4 NII_{i,t} + \beta_5 CAP_{i,t} + \beta_6 CI_{i,t} + \beta_7 HERF_{i,t} + \beta_8 SIZE_{i,t} + \beta_9 GDPC_{j,t} + \beta_{10} LERNER_{j,t} + \beta_{11} INFLATION_{j,t} + \beta_{12} FINCRISES_t + \boldsymbol{\varepsilon_{i,t}},\ \ldots\ \textbf{(Eq. 2)}$$

$$\boldsymbol{ZSCORE_{i,t}=}\ \beta_0 + \boldsymbol{\beta_1 FOREIGNBANK_{i,t}} + \beta_2 NIM_{i,t} + \beta_3 NII_{i,t} + \beta_4 CAP_{i,t} + \beta_5 CI_{i,t} + \beta_6 HERF_{i,t} + \beta_7 SIZE_{i,t} + \beta_8 GDPC_{j,t} + \beta_9 LERNER_{j,t} + \beta_{10} INFLATION_{j,t} + \beta_{11} FINCRISES_t + \beta_{12} FRR_{j,t} + \boldsymbol{\varepsilon_{i,t}},\ \ldots\ \textbf{(Eq. 3)}$$

$$\boldsymbol{ZSCORE_{i,t}=}\ \beta_0 + \boldsymbol{\beta_1 FOREIGNBANK_{i,t}} + \boldsymbol{\beta_2 CLCG_{j,t}} + \beta_3 NIM_{i,t} + \beta_4 NII_{i,t} + \beta_5 CAP_{i,t} + \beta_6 CI_{i,t} + \beta_7 HERF_{i,t} + \beta_8 FRR_{j,t} + \beta_9 SIZE_{i,t} + \beta_{10} GDPC_{j,t} + \beta_{11} LERNER_{j,t} + \beta_{12} INFLATION_{j,t} + \beta_{13} FINCRISES_t + \boldsymbol{\varepsilon_{i,t}},\ \ldots\ \textbf{(Eq. 4)}$$

$$\boldsymbol{ZSCORE_{i,t}=}\ \beta_0 + \boldsymbol{\beta_1 FOREIGNBANK_{i,t}} + \beta_2 NIM_{i,t} + \beta_3 NII_{i,t} + \beta_4 CAP_{i,t} + \beta_5 CI_{i,t} + \beta_6 HERF_{i,t} + \beta_7 FRR_{i,t} + \beta_8 SIZE_{i,t} + \beta_9 GDPC_{j,t} + \beta_{10} LERNER_{j,t} + \beta_{11} INFLATION_{j,t} + \beta_{12} FINCRISES_t + \boldsymbol{\varepsilon_{i,t}},\ \ldots\ \textbf{(Eq. 5)}$$

Variables' Definition and Selection

Z-Score is used as a measure for banking stability and computed as capital ratio plus return on assets scaled over standard deviation of return on assets (Ozil, 2018; Boyd de Nicolo and Jalal, 2006). The resulting value indicates the number of deviations by which the return of a bank would have to fall from the mean to erode the equity of a bank; hence measuring how stable a bank is from distress (Boyd and Runkle, 1993). The literature on foreign operations advance that the operations of foreign banks have huge implications for banking activities including stability, competition and efficiency. The general expectation is that foreign bank operations improve banking stability (Boateng, Huang and Kufuor, 2015; Pasiouras and Kosmidou, 2007). However, the effect of foreign bank operations improves in economies with strong corporate governance systems and further improves under different regulatory regimes (Bermpei et al., 2018; Tunay and Yuksel, 2017; Haas et al., 2015). Country-level corporate governance indicators used in this study include: ease of shareholder suit index (ESHS), extent of disclosure index (ExD), extent of director liability index (ExDL), strength of investor protection (SIP) and extent of business disclosure (ExBD). These are used following prior studies (Appiah-Kubi, 2020; Hillier, Pindado, Queiroz and Torre,

2011). Additionally, an overall average country-level corporate governance (clcg) is created and used in this study where higher values of clcg is preferred. The expectation is that strong governance systems will improve the effect of foreign operations (assets and presence) on banking stability while weak corporate governance systems will weaken the effect of foreign bank operations on banking stability. In terms of financial regulatory regimes, loan loss reserves, private and public sector led financial transparency regimes are used. Following the private and public interest theories of regulations, regulations should improve the outcomes of financial and economic activities. While this view is valid in the study, we additional contend that regulations may weak financial and economic outcomes if the institutions (governance systems) are weak. These regulatory regimes are used purely due to availability of data.

Bank interest margin represents banking profitability and used as a determinant of banking stability. Following prior studies (Dwumfour, 2017; Islam and Nishiyama, 2016), banking profitability may improve or derail banking stability. Thus, profitable banks have the financial muscles to absorb shocks and hence improve banking stability. However, when profits are volatile, it may lead to a decline in banking stability. Following prior studies (Stiroh, 2004a;b), non-interest income is used to proxy income diversification. The argument is that non-interest income reduces the risk of income associated with the core income of banks and hence, promotes banking stability. Banking capitalization is measured as natural log of equity and signifies the ability of banks to absorb and navigate credit losses and shocks following the risk-return hypothesis (see Berger, 1995). Thus, well-capitalized banks can implement sophisticated risk management strategies to ensure banking stability (Beck, Jonghe and Schepens, 2013).

Banking operational cost efficiency is measure as operational cost to income and provides an indication of how well a bank is able to tame or manage its operating costs (see Athanasoglou et al., 2008). With higher values of cost-income ratio indicating poor cost of management, it is expected to reduce stability implying a negative relationship. However, a positive relationship is possible when banks spend to maintain their stability (Mensah, Andoh, Kuttu and Kusi, 2019). Banking sector concentration is computed using the Herfindahl-Hirschman index (HHI). Following the literature on banking concentration, the concentration-fragility and concentration-stability hypotheses explain the negative and positive relationships between concentration and banking stability, respectively (Kasman and Kasman, 2015; Turk-Ariss, 2010). Bank size is measured as the natural logarithm (log) of total assets and explained by the economies and diseconomies of scale (Mensah et al., 2019). That is, while the economies of scale advance a positive

relationship between size and stability based on the notion that there are efficiency gains associated with size, the diseconomies of scale advance a negative relationship between size and stability arguing that larger banks have bureaucratic systems, poor supervision and monitoring problems and delays in decision making which lead to a weakening of banking stability. Gross domestic product per capita measures the standard of living and computed as a ratio of gross domestic product to total population. Following prior studies (Jimenez, Lopez & Saurina, 2009), growth in gross domestic product per capita is an indication of improvements in loan repayment which promotes banking stability.

The Lerner index or market power of banks is measured as output price less marginal cost scaled over price (Beck et al., 2013; Carbo et al, 2009). It reflects the extent to which banks are able to price their outputs above the marginal cost hence making them price setters (Tan, 2016). We argue that higher bank market power improves banking stability because ability to price output above the marginal cost leads to higher banking profitability and stability. Inflation is measured using consumer price index and measures economic stability (see Castro, 2012). Following empirical literature, both positive and negative effects of inflation on stability are possible. Thus, inflation weakens the ability of bank clients to pay their loans which leads to worsening financial positions of banks (see Castro, 2012) and increases credit losses and defaults to reduce banking stability. However, if banks are able to anticipate inflation changes and factor it to their loan prices, it may improve the banking stability of banks. Hence, the relationship between inflation and banking stability is not straightforward. Financial crisis is measured as a dummy which assumes a value of 1 for years of the recent global financial crises (2007, 2008 and 2009) and 0 otherwise. Generally, financial crisis weakens banking stability because crisis leads to lose of confidence in the banking sector. This engenders panic withdrawal which magnifies banking instability; hence, a negative relationship between financial crisis and banking stability. However, it can be argued that crisis leads to collapse of weak banks, engendering a strong and sound banking sector. Thus, a positive link between financial crisis and banking stability. Appendix 9 reports the summary of variables used in this study.

Discussions of Empirical Results

The summary statistics (Appendix 10) is used to screen for outliers which have the possibility of adversely influencing the accuracy, consistency and efficiency of the results. Using the mean, maximum and minimum values of the variables, there is no evidence of outliers. Additionally, Pearson's correlation matrix

(Appendix 11) is used to screen for multicollinearity and no evidence of multicollinearity is found when the multicollinearity threshold is set to 0.5 (see York, 2012; Wichers, 1975).

The main results of this study are reported in Tables 2, 3, 4 and 5. In Table 2, the effects of foreign bank assets and presence are examined on banking stability in economies with strong and weak country-level corporate governance in Africa without regulatory considerations. However, in Tables 3, 4 and 5, the effects of foreign bank assets and presence are examined on banking stability in economies with strong and weak country-level corporate governance in Africa with concentration on loan loss reserve and private and public sector-led financial transparency regulations. Each table reports six (6) models with the first-three models in each table focusing on how the ratio of number of foreign banks to total banks affect banking stability in strong and weak corporate governance economies, while the last-three models focus on how the ratio of foreign bank assets to total bank assets affect banking stability in strong and weak corporate governance economies. The results cover periods 2006 and 2015 and capture the overall average country-level corporate governance variable created. However, corporate governance indexes including shareholder suit index (ESHS), extent of director liability index (ExDL), extent of disclosure (ExD), strength of investor protection (SIP) and extent of business disclosure (ExBD) are used to split the sample into African economies strong and weak corporate governance systems and reported in the Appendix (Appendix 5-8)[1] to ensure brevity of findings and discussions. This helps us to understand how foreign banks influence banking stability in Africa in economies with strong and weak corporate governance systems under different financial regulations.

From Table 2 where the effects of foreign bank presence (Models 1-3) and assets (Model 4-6) on banking stability are examined in strong and weak corporate governance economies in Africa, it is observed that both foreign bank presence (Model 1) and assets (Model 4) in the full sample promote banking stability. Interestingly, when the sample is split into economies with strong (Models 2 and 5) and weak (Models 3 and 6) country-level corporate governance, it is evident that the positive effect of foreign bank presence and assets on banking stability is improved in economies with strong country-level corporate governance systems, while the positive effect of foreign bank presence and assets on banking stability declined in

[1]In Appendix 5, 6 7 and 8, the effect of foreign banks on banking stability in strong and weak corporate governance economies under private sector led transparency regulation, public sector led transparency regulation, loan loss provision and no regulatory regimes respectively are reported. In each case, strong and weak shareholder suit index (ESHS), extent of director liability index (ExDL), extent of disclosure (ExD), strength of investor protection (SIP) and extent of business disclosure (ExBD) are used.

economies with weak country-level corporate governance systems. These show that country-level corporate governance systems are crucial in shaping foreign bank assets and presence to stimulate banking stability in Africa even under no regulatory regime. Interestingly, when loan loss provision, private and public sector-led financial transparency regulation regimes are considered in Tables 3, 4 and 5, respectively, it is evident that the effect of foreign bank presence and assets in the full sample and economies with strong country-level corporate governance systems improve relative to when no regulatory regime is considered (Table 2).Similarly, the positive effect of foreign bank presence and assets on stability declines in economies with weak corporate governance systems in Africa, especially under the loan loss provision regime. More so, the effect of foreign bank presence and assets on banking stability in economies with strong country-level corporate governance systems is still positive under the private and public sector-led transparency regulations while negative stability in economies with weak country-level corporate governance systems under the private and public sector-led transparency regulatory regimes (see Table 4 and 5).These findings clearly show the importance of regulations in reinforcing the effect of foreign bank presence and assets in different corporate governance economies within Africa. These findings confirms prior studies (Bermpei et al., 2018; Tunay and Yuksel, 2017; Haas et al., 2015) that show that corporate governance and regulatory measures are important for shaping how foreign bank presence and assets affect banking stability. Interestingly, employing the different indicators of country level corporate governance structures (see Appendix 5-8), similar results and findings are observed.

On the control variables, the results report a consistent negative effect of profitability measured as net interest margins. Following theories on risk-return, increase in profitability increases risk exposure leading to decline in banking stability (see Mensah et al., 2019). Income diversification is found to be positively related to banking stability across the models estimated. This is consistent with prior studies (Stiroh, 2004a; b), which show that diversification improves banking stability. Banking capitalization is found to be positively related to banking stability. As expected, increase in capital provides an indication of banks' ability to deal with risk which ensures banking stability. As expected, cost inefficiency dampens stability just like banking concentration and size. The negative relationship between banking concentration is explained by the concentration-fragility hypothesis, while the negative effect of bank size is explained by the diseconomies of scale concept. Also, gross domestic product per capita is reported to have a positive nexus with banking stability. This is not surprising given that improvement in gross domestic product signifies better loan repayment and reduced credit risk and default. Bank market power shows a positive effect on banking

stability implying that banks that have market power improve banking stability. Inflation is found to be positively related banking stability. According, as discussed in the data section, prior studies show that if banks are proactive in passing on inflationary shocks to their clients, it may promote their stability. Financial crisis presents both positive and negative effects on banking stability. This is consistent with prior studies. Interestingly, regulations yield different effects on banking stability depending on the kind of regulation in question. For instance, loan loss reserve is reported to promote banking stability across both economies with strong and weak country level corporate governance systems. Furthermore, while public sector-led financial transparency regulation improved banking stability in the full and economies with strong governance systems, public sector-led financial transparency regulation at the same time dampened banking stability in economies with weak governance systems. However, private sector-led financial transparency regulation consistently impeded banking stability across the entire samples. These confirm the findings of prior studies (see Leuz and Wysocki, 2016; Edwards and Waverman, 2006) on how different regulations yield varying outcomes depending on some contextual factors like governance systems. Interestingly, following Miller (2003) because public sector-led financial transparency institutions are usually established by central banks to complement regulatory efforts, it is not surprising to find it improving banking stability especially in economies with strong governance systems. However, because private sector-led financial transparency institutions are not usually established to complement regulatory efforts, it is not surprising to find it repressing banking stability across the entire sample.

Table 2: Effect of Foreign Bank Presence and Assets on Financial Stability of Banks in Strong and Weak Country Level Corporate Governance Structures – No Regulatory Regime

VARIABLES	(1) Full Sample	(2) Strong Governance Sample	(3) Weak Governance Sample	(4) Full Sample	(5) Strong Governance Sample	(6) Weak Governance Sample
FBP	0.0123***	0.0207***	0.0040			
	(0.0023)	(0.0017)	(0.0032)			
FBA				0.0109***	0.0185***	0.0060**
				(0.0018)	(0.0019)	(0.0028)
clcg	-0.0057			-0.0197		
	(0.0221)			(0.0216)		
nim1	0.0074	-0.0313**	-0.0230	0.0064	-0.0394**	-0.0265
	(0.0149)	(0.0152)	(0.0485)	(0.0148)	(0.0156)	(0.0456)
nii	0.1174	0.2299**	-0.4858	0.2019**	0.1938*	-0.2907
	(0.1007)	(0.0970)	(0.4224)	(0.1014)	(0.1001)	(0.4043)
cap	0.8724***	0.9016***	0.8477***	0.8711***	0.9045***	0.8497***
	(0.0241)	(0.0292)	(0.0402)	(0.0237)	(0.0293)	(0.0377)
ci	-0.0521***	-0.0950***	-0.0408	-0.0815***	-0.0912***	-0.1116*
	(0.0201)	(0.0222)	(0.0320)	(0.0302)	(0.0238)	(0.0578)
HERF	-0.1420*	-0.2178**	-0.0769	-0.2145**	-0.2814**	0.0032
	(0.0775)	(0.0971)	(0.1213)	(0.0938)	(0.1103)	(0.1096)
size	-0.8522***	-0.8922***	-0.7371***	-0.8495***	-0.8951***	-0.7344***
	(0.0255)	(0.0286)	(0.0665)	(0.0250)	(0.0290)	(0.0617)
gdpc	0.0197	0.1570	-0.4164	0.0278	0.2160	-0.4979
	(0.1698)	(0.1124)	(0.4523)	(0.2236)	(0.1662)	(0.4413)
Lerner	1.1221**	0.0591	1.2292*	1.4878***	0.3156	0.8921
	(0.4585)	(0.4126)	(0.7344)	(0.4792)	(0.4699)	(0.7663)
Inflation	0.0076*	0.0038	0.0069	0.0098**	-0.0028	0.0106
	(0.0046)	(0.0066)	(0.0073)	(0.0050)	(0.0083)	(0.0079)
fincrises	-0.0095	0.0720	-0.1837	-0.0433	0.0737	-0.1808*
	(0.0647)	(0.0618)	(0.1177)	(0.0696)	(0.0662)	(0.1082)
Constant	2.4069***	2.7048***	2.3709***	2.4910***	2.8581***	2.3542***
	(0.3927)	(0.1701)	(0.5246)	(0.3860)	(0.2088)	(0.4561)
Observations	367	229	140	351	215	137
R-squared	0.8390	0.9177	0.8088	0.8547	0.9135	0.8293
No. of banks	86	52	46	86	52	46

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1. *Source: Computed by authors based on data from World Development Indicators, Global Finance Development and Doing Business Databases – Note: banking stability (z-score), foreign bank assets (FBA), foreign bank presence (FBP), country level corporate governance (clcg), nim – net interest mrgins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises – financial crises*

Table 3: Effect of Foreign Bank Presence and Assets on Financial Stability of Banks in Strong and Weak Country Level Corporate Governance Structures – Loan Loss Reserve Regime

VARIABLES	(1) Full Sample	(2) Strong Governance Sample	(3) Weak Governance Sample	(4) Full Sample	(5) Strong Governance Sample	(6) Weak Governance Sample
FBP	0.0129***	0.0220***	0.0058			
	(0.0027)	(0.0020)	(0.0059)			
FBA				0.0116***	0.0194***	0.0092*
				(0.0019)	(0.0019)	(0.0050)
clcg	-0.0215			-0.0292		
	(0.0267)			(0.0254)		
nim1	0.0148	-0.0397**	-0.0221	0.0107	-0.0366**	-0.0127
	(0.0148)	(0.0166)	(0.0501)	(0.0143)	(0.0159)	(0.0506)
nii	0.1747*	0.2500**	-0.7178	0.2811**	0.2273*	-0.4620
	(0.1053)	(0.1184)	(0.4578)	(0.1136)	(0.1271)	(0.4251)
cap	0.8753***	0.9106***	0.8422***	0.8731***	0.9141***	0.8512***
	(0.0300)	(0.0334)	(0.0799)	(0.0297)	(0.0332)	(0.0638)
ci	-0.0637***	-0.0803***	-0.0366	-0.0959***	-0.0798***	-0.1214**
	(0.0226)	(0.0249)	(0.0301)	(0.0353)	(0.0255)	(0.0561)
HERF	-0.1954**	-0.2588**	0.0190	-0.2548***	-0.3644***	0.0984
	(0.0838)	(0.1025)	(0.1240)	(0.0977)	(0.1164)	(0.1320)
size	-0.9043***	-0.9389***	-0.7980***	-0.8956***	-0.9430***	-0.7844***
	(0.0354)	(0.0363)	(0.1079)	(0.0357)	(0.0361)	(0.0810)
gdpc	0.0084	0.1472	-0.4510	0.0426	0.2201	-0.5655
	(0.1795)	(0.1184)	(0.5111)	(0.2391)	(0.1708)	(0.5061)
Lerner	1.0662**	0.0301	0.8445	1.5308***	0.3313	0.7033
	(0.5340)	(0.4087)	(1.2175)	(0.5711)	(0.4690)	(1.1691)
Inflation	0.0067	0.0031	0.0063	0.0099*	-0.0032	0.0096
	(0.0045)	(0.0068)	(0.0065)	(0.0051)	(0.0085)	(0.0066)
lnLLR	0.0531*	0.0367*	0.1101	0.0464	0.0375*	0.0847
	(0.0316)	(0.0207)	(0.1017)	(0.0308)	(0.0204)	(0.0948)
fincrises	0.0119	0.1012	-0.1598	-0.0136	0.1033	-0.1557
	(0.0761)	(0.0677)	(0.1354)	(0.0811)	(0.0691)	(0.1312)
Constant	2.6963***	2.8759***	2.5986**	2.6727***	2.9398***	2.3590***
	(0.5314)	(0.2058)	(1.0441)	(0.5093)	(0.2411)	(0.8537)
Observations	331	209	124	316	195	122
R-squared	0.8316	0.9063	0.7887	0.8512	0.9159	0.8133
No. of banks	85	52	45	85	52	45

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1. *Source: Computed by authors based on data from World Development Indicators, Global Finance Development and Doing Business Databases – Note: banking stability (z-score), foreign bank assets (FBA), foreign bank presence (FBP), country level corporate governance (clcg), nim – net interest mrgins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises – financial crises, lnLLR – loan loss provision*

Table 4: Effect of Foreign Bank Presence and Assets on Financial Stability of Banks in Strong and Weak Country Level Corporate Governance Structures – Private Sector-Led Financial Transparency Regime

VARIABLES	(1) Full Sample	(2) Strong Governance Sample	(3) Weak Governance Sample	(4) Full Sample	(5) Strong Governance Sample	(6) Weak Governance Sample
FBP	-0.0009	0.0136***	-0.0056**			
	(0.0015)	(0.0028)	(0.0023)			
FBA				0.0046***	0.0122***	0.0006
				(0.0016)	(0.0018)	(0.0022)
clcg	0.0680***			0.0543***		
	(0.0158)			(0.0166)		
nim1	0.0183	-0.0145	-0.0199	0.0209*	-0.0115	-0.0201
	(0.0122)	(0.0163)	(0.0316)	(0.0120)	(0.0152)	(0.0326)
nii	0.1623*	0.2397**	0.0239	0.2326**	0.2310**	0.1285
	(0.0971)	(0.0951)	(0.2732)	(0.1054)	(0.0958)	(0.3041)
cap2	0.8619***	0.9051***	0.7018***	0.8624***	0.9055***	0.7189***
	(0.0278)	(0.0285)	(0.0629)	(0.0289)	(0.0281)	(0.0672)
ci	-0.0276*	-0.0965***	0.0176	-0.0567**	-0.0901***	-0.0069
	(0.0161)	(0.0216)	(0.0195)	(0.0250)	(0.0213)	(0.0599)
HERF	-0.0868	-0.2112**	0.0536	-0.0958	-0.2838***	0.0778
	(0.0586)	(0.0955)	(0.1071)	(0.0703)	(0.1082)	(0.1072)
size	-	-0.8985***	-0.6749***	-	-0.8997***	-0.6845***
	0.8615***			0.8596***		
	(0.0278)	(0.0280)	(0.0751)	(0.0285)	(0.0277)	(0.0745)
gdpc	0.2595**	0.0900	0.3838	0.3016**	0.0466	0.4291
	(0.1014)	(0.1047)	(0.3026)	(0.1352)	(0.1626)	(0.3284)
Lernerindex	0.6189**	-0.3178	0.1990	0.8223**	-0.4756	1.0004*
	(0.2867)	(0.3843)	(0.5173)	(0.3636)	(0.4791)	(0.5836)
Inflation	0.0092**	0.0087	0.0174***	0.0129***	0.0016	0.0192***
	(0.0036)	(0.0060)	(0.0058)	(0.0040)	(0.0067)	(0.0063)
PrSLFTR	-	-0.0091***	0.0112	-	-0.0093***	0.0183
	0.0187***			0.0146***		
	(0.0020)	(0.0026)	(0.0135)	(0.0024)	(0.0021)	(0.0142)
fincrises	0.0580	0.0196	-0.0622	0.0393	0.0036	-0.0645
	(0.0411)	(0.0611)	(0.0683)	(0.0437)	(0.0674)	(0.0719)
Constant	2.9212***	3.3047***	3.2379***	2.6092***	3.4157***	2.5730***
	(0.2362)	(0.2100)	(0.4010)	(0.2605)	(0.2193)	(0.3770)
Observations	339	229	112	323	215	109
R-squared	0.8976	0.9207	0.9220	0.9054	0.9229	0.9238
No. of banks	76	52	36	76	52	36

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1. *Source: Computed by authors based on data from World Development Indicators, Global Finance Development and Doing Business Databases – Note: banking stability (z-score), foreign bank assets (FBA), foreign bank presence*

(FBP), country level corporate governance (clcg), nim – net interest mrgins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises – financial crises; PrSLFTR – private sector led financial transparency regulation

Table 5: Effect of Foreign Bank Presence and Assets on Financial Stability of Banks in Strong and Weak Country Level Corporate Governance Structures – Public Sector-Led Financial Transparency Regime

VARIABLES	(1) Full Sample	(2) Strong Governance Sample	(3) Weak Governance Sample	(4) Full Sample	(5) Strong Governance Sample	(6) Weak Governance Sample
FBP	0.0064***	0.0203***	-0.0083***			
	(0.0016)	(0.0017)	(0.0022)			
FBA				0.0087***	0.0180***	-0.0090***
				(0.0013)	(0.0021)	(0.0025)
clcg	-0.0178			-0.0063		
	(0.0173)			(0.0169)		
nim1	0.0101	-0.0256*	-0.0294	0.0144	-0.0260*	-0.0410
	(0.0138)	(0.0144)	(0.0242)	(0.0130)	(0.0152)	(0.0272)
nii	0.1856*	0.2526***	0.3061	0.2609**	0.2092**	0.4225*
	(0.1043)	(0.0977)	(0.2268)	(0.1124)	(0.0990)	(0.2314)
cap2	0.8545***	0.9023***	0.7360***	0.8514***	0.9050***	0.7533***
	(0.0297)	(0.0296)	(0.0543)	(0.0306)	(0.0295)	(0.0586)
ci	-0.0363**	-0.0916***	-0.0554	-0.0552**	-0.0846***	-0.0487
	(0.0177)	(0.0216)	(0.0348)	(0.0263)	(0.0218)	(0.0571)
HERF	-0.0851	-0.2289**	-0.0585	-0.1222	-0.2991***	-0.0133
	(0.0680)	(0.0975)	(0.1118)	(0.0785)	(0.1080)	(0.1119)
size	-0.8413***	-0.8938***	-0.7699***	-0.8402***	-0.8970***	-0.8019***
	(0.0296)	(0.0290)	(0.0636)	(0.0301)	(0.0291)	(0.0662)
gdpc	0.3597***	0.1915*	0.2210	0.5351***	0.2693	0.1331
	(0.1201)	(0.1139)	(0.2481)	(0.1451)	(0.1684)	(0.2498)
Lernerindex	1.9777***	0.1266	0.8165	2.2390***	0.1713	0.9846*
	(0.3199)	(0.4214)	(0.5701)	(0.3427)	(0.4975)	(0.5315)
Inflation	0.0088**	0.0075	-0.0017	0.0136***	0.0029	0.0017
	(0.0043)	(0.0068)	(0.0054)	(0.0046)	(0.0086)	(0.0055)
PuSLFTR	0.0046*	0.0062***	-0.0654***	0.0041*	0.0072***	-0.0845***
	(0.0027)	(0.0023)	(0.0129)	(0.0024)	(0.0022)	(0.0158)
fincrises	0.0924**	0.0736	0.0651	0.0740	0.0698	0.0621
	(0.0471)	(0.0623)	(0.0546)	(0.0478)	(0.0640)	(0.0571)
Constant	2.4221***	2.6083***	4.1667***	2.0926***	2.7198***	4.3695***
	(0.2931)	(0.1613)	(0.4389)	(0.2774)	(0.2044)	(0.4684)

Observations	339	229	112	323	215	109
R-squared	0.8727	0.9208	0.9302	0.8950	0.9208	0.9369
No. of banks	76	52	36	76	52	36

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1. *Source: Computed by authors based on data from World Development Indicators, Global Finance Development and Doing Business Databases – Note: banking stability (z-score), foreign bank assets (FBA), foreign bank presence (FBP), country level corporate governance (clcg), nim – net interest mrgins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises – financial crises, PuSLFTR – public sector led financial transparency regulation*

Conclusions and Policy Implications

In this study, the effect of foreign bank assets and presence is examined on banking stability in the economies with strong and weak country-level corporate governance in Africa between the period, 2006 - 2015. Motivated by limited studies on how foreign bank assets and presence influence banking stability in Africa, this study presents evidence for the first time on how foreign bank assets and presence influence banking stability in economies with strong and weak country-level corporate governance systems under different regulatory regimes. This study employs Prais-Winsten panel model on 86 banks across 30 African economies.

The findings show that foreign bank presence and assets promote banking stability. However, the effect of foreign bank assets and presence is enhanced in economies with strong country-level corporate governance systems, while the effect of foreign bank assets and presence reduces in economies with weak country-level corporate governance systems. This finding shows that banking stability is reinforced in economies that have stronger corporate governance systems in Africa. After introducing different regulatory regimes, it is observed that the enhancing effect of foreign bank presence and assets on banking stability in the full sample and economies with strong and weak country-level corporate governance systems is deepened or improved under loan loss provision regulation regime. However, under the private and public sector-led financial transparency regulations, the reducing effect of foreign bank presence and assets on banking stability in economies with weak corporate governance systems is further dampened. These findings show that the relationship between foreign bank presence and assets are deeply shaped by corporate governance systems and regulatory regimes in Africa.

These findings have some policy implications. First, it is clear the corporate governance systems at the

country level can used as a strategy through which foreign bank assets and presence can induce banking stability. Hence, African economies will have to build stronger corporate governance systems that can be useful for promoting the effectiveness of how foreign bank assets and presence enhance banking stability. Second, policymakers can also rely on regulations to enhance the relationship between foreign bank assets and presence on banking stability in different contextual setups in Africa. However, policymakers must be careful in the selection and implementation of regulatory regimes since some regulatory regimes are more effective compared to others. Third, for the purpose of future research, researchers may want to consider how political institutions under different regulatory regimes can influence the relationship between foreign bank operations (assets and presence) and banking stability in Africa.

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Appendix

Appendix 1: Breusch-Pagan Lagrangian Multiplier Test

Test: Var(u)=0
Chibar2(01)=495.33
Prob>Chibar2=0.000

Appendix 2: Hausman (1978) Specification

Chi-square test value = 55.6
P-Value =0.000

Appendix 3: Modified Wald Test for GroupwiseHeteroskedasticity

Ho: sigma(i)^2= sigma^2 for all i
Chi2 (77)= 1.7e+05
Prob>chi2=0.000

Appendix 4: Wooldridge Test for Autocorrelation in panel data

Ho: no first order autocorrelation
F(1,60)=4.664
Prob>F=0.0348

Appendix 5: Effect of Foreign Bank Presence on Financial Stability across Strong and Weak Different Country Level Corporate Governance Structures – Private Sector-Led Financial Transparency Regime

	ESHS	*ExD*	*ExDL*	*SIP*	*ExBD*	*ESHS*	*ExD*	*ExDL*	*SIP*	*ExBD*
VARIABLES	Strong Corporate Governance Economies					Weak Corporate Governance Economies				
FBP	0.0027	0.0109***	0.0150***	0.0091**	0.0159***	0.0118***	-0.0015	-0.0018	-0.0005	-0.0020
	(0.0022)	(0.0036)	(0.0053)	(0.0041)	(0.0055)	(0.0039)	(0.0020)	(0.0019)	(0.0020)	(0.0019)
nim1	-0.0242	-0.0246	-0.0109	-0.0295	-0.0091	-0.0438	-0.0114	0.0626***	0.0671***	0.0632***
	(0.0157)	(0.0167)	(0.0182)	(0.0182)	(0.0182)	(0.0404)	(0.0278)	(0.0192)	(0.0210)	(0.0196)
nii	0.1438	0.2720**	0.2493**	0.2100*	0.2444**	0.6063*	0.0602	0.2612	0.3485*	0.2535
	(0.0915)	(0.1182)	(0.1163)	(0.1105)	(0.1159)	(0.3516)	(0.2264)	(0.1852)	(0.2009)	(0.1848)
cap2	0.9223***	0.9001***	0.9229***	0.9495***	0.9271***	0.5262***	0.6491***	0.7787***	0.7380***	0.7761***
	(0.0268)	(0.0307)	(0.0323)	(0.0288)	(0.0322)	(0.0664)	(0.0895)	(0.0479)	(0.0534)	(0.0486)
ci	-0.0814***	-0.1000***	-0.0948***	-0.1017***	-0.0784***	0.0013	-0.0749**	0.0236	0.0328*	0.0221
	(0.0210)	(0.0332)	(0.0251)	(0.0220)	(0.0268)	(0.0256)	(0.0382)	(0.0181)	(0.0186)	(0.0186)
HERF	-0.1200*	-0.1445	-0.1687*	-0.2424**	-0.1450	0.1617	-0.0910	0.0896	0.1016	0.0818
	(0.0630)	(0.0890)	(0.1013)	(0.1005)	(0.1024)	(0.1420)	(0.1031)	(0.0937)	(0.0996)	(0.0929)
size	-0.9141***	-0.8972***	-0.9203***	-0.9457***	-0.9242***	-0.5773***	-0.6120***	-0.7914***	-0.7530***	-0.7890***
	(0.0269)	(0.0308)	(0.0321)	(0.0290)	(0.0319)	(0.0760)	(0.0867)	(0.0515)	(0.0574)	(0.0521)
gdpc	0.0476	0.3044*	0.0412	0.0444	0.0329	0.6668*	0.3073*	0.4298	0.4708	0.4145
	(0.0913)	(0.1727)	(0.1125)	(0.1027)	(0.1136)	(0.3895)	(0.1743)	(0.2659)	(0.2894)	(0.2638)
Lernerindex	0.2709	0.3440	-0.2188	-0.2664	-0.2625	0.0296	0.7925	0.1759	0.0887	0.1110
	(0.2826)	(0.5047)	(0.5997)	(0.4745)	(0.6072)	(0.8313)	(0.5037)	(0.5229)	(0.5683)	(0.5279)
Inflationcons	0.0023	0.0024	0.0108*	0.0114*	0.0044	0.0168**	0.0060	0.0174***	0.0231***	0.0168***
	(0.0028)	(0.0080)	(0.0062)	(0.0059)	(0.0069)	(0.0082)	(0.0058)	(0.0057)	(0.0063)	(0.0056)
PrSLFTR	-0.0176***	-0.0084**	-0.0092***	-0.0130***	-0.0079***	0.0033	-0.0008	0.0294**	0.0421***	0.0299**
	(0.0016)	(0.0033)	(0.0028)	(0.0023)	(0.0029)	(0.0037)	(0.0114)	(0.0132)	(0.0157)	(0.0140)
fincrises	0.0146	0.1108*	0.0108	-0.0106	0.0145	-0.0563	-0.0754	0.0812	0.1050	0.0802
	(0.0488)	(0.0584)	(0.0660)	(0.0637)	(0.0659)	(0.0884)	(0.0846)	(0.0701)	(0.0783)	(0.0705)
Constant	4.1068***	3.3368***	3.2776***	3.8714***	3.2132***	2.1183***	2.7835***	2.8475***	2.5220***	2.8818***
	(0.2140)	(0.3248)	(0.3251)	(0.2698)	(0.3325)	(0.5239)	(0.3668)	(0.3380)	(0.3514)	(0.3392)
Observations	247	217	192	185	194	94	124	149	156	147
R-squared	0.9314	0.9071	0.8849	0.9033	0.8810	0.9041	0.8853	0.9192	0.9061	0.9158
No. of banks	50	53	41	40	41	27	35	38	42	36

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1 - *Source: Graphed by authors based on data from World Development Indicators and Doing Business Databases – Note: banking stability (z-score), private sector-led financial transparency regulation (PrSLFTR), public sector-led financial transparency regulation (PuSLFTR), foreign bank assets (FBA), ease of shareholder suit index (ESHS), extent of Disclosure index (ExD), extent of director liability index (ExDL), strength of investor protection (SIP) and extent of business disclosure (ExBD), foreign bank presence (FBP), country level corporate governance (clcg), nim – net interest mrgins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises – financial crises, PrSLFTR - private sector led financial transparency regulation*

Appendix 6: Effect of Foreign Bank Presence on Financial Stability across Strong and Weak Different Country Level Corporate Governance Structures – Public Sector-Led Financial Transparency Regime

	ESHS	*ExD*	*ExDL*	*SIP*	*ExBD*	*ESHS*	*ExD*	*ExDL*	*SIP*	*ExBD*
VARIABLES	Strong Corporate Governance Economies					Weak Corporate Governance Economies				
FBP	0.0138***	0.0155***	0.0199***	0.0223***	0.0207***	0.0059	-0.0059***	-0.0029	-0.0007	-0.0028
	(0.0021)	(0.0022)	(0.0033)	(0.0039)	(0.0033)	(0.0038)	(0.0019)	(0.0023)	(0.0022)	(0.0025)
nim1	-0.0388**	-0.0314**	-0.0159	-0.0375**	-0.0125	-0.0889**	-0.0375	-0.0193	-0.0202	-0.0210
	(0.0168)	(0.0157)	(0.0180)	(0.0185)	(0.0182)	(0.0370)	(0.0255)	(0.0242)	(0.0250)	(0.0245)
nii	0.1051	0.2460**	0.2584**	0.2191**	0.2609**	0.3096	0.1932	0.1317	0.1761	0.1174
	(0.1030)	(0.1241)	(0.1184)	(0.1114)	(0.1187)	(0.2972)	(0.1865)	(0.1646)	(0.1779)	(0.1626)
cap2	0.9189***	0.8984***	0.9205***	0.9414***	0.9244***	0.5290***	0.6320***	0.7805***	0.7464***	0.7804***
	(0.0293)	(0.0325)	(0.0329)	(0.0307)	(0.0329)	(0.0632)	(0.0738)	(0.0441)	(0.0472)	(0.0441)
ci	-0.0840***	-0.0940***	-0.0817***	-0.0957***	-0.0688**	-0.0424	-0.0873***	-0.0118	-0.0171	-0.0108
	(0.0259)	(0.0328)	(0.0252)	(0.0243)	(0.0271)	(0.0313)	(0.0331)	(0.0212)	(0.0262)	(0.0206)
HERF	-0.1236*	-0.1282	-0.1756*	-0.2701***	-0.1556	0.0894	-0.1014	-0.0077	-0.0100	-0.0084
	(0.0679)	(0.0932)	(0.1024)	(0.1006)	(0.1035)	(0.1203)	(0.1097)	(0.0720)	(0.0889)	(0.0707)
size	-0.8988***	-0.8937***	-0.9154***	-0.9335***	-0.9204***	-0.5385***	-0.6614***	-0.7774***	-0.7365***	-0.7775***
	(0.0294)	(0.0326)	(0.0327)	(0.0307)	(0.0327)	(0.0687)	(0.0671)	(0.0479)	(0.0513)	(0.0477)
gdpc	0.2508**	0.5355***	0.1404	0.1707	0.1157	0.3914	0.1912	0.1669	0.1598	0.1520
	(0.1137)	(0.1795)	(0.1219)	(0.1168)	(0.1227)	(0.3130)	(0.1316)	(0.2205)	(0.2380)	(0.2158)
Lernerindex	1.7299***	1.1632**	0.1933	-0.0348	0.0492	1.4391**	1.1823***	0.5798	0.9701*	0.4876
	(0.3346)	(0.4884)	(0.6172)	(0.5722)	(0.6226)	(0.6486)	(0.4569)	(0.4794)	(0.5381)	(0.4710)
Inflation	0.0028	0.0075	0.0074	0.0089	0.0024	-0.0100	-0.0093	0.0075	0.0086	0.0074
	(0.0038)	(0.0092)	(0.0067)	(0.0067)	(0.0074)	(0.0078)	(0.0057)	(0.0054)	(0.0056)	(0.0053)
PuSLFTR	0.0031	0.0052**	0.0082***	0.0061***	0.0081***	-0.0278***	-0.0696***	-0.0378***	-0.0390***	-0.0390***
	(0.0020)	(0.0026)	(0.0021)	(0.0022)	(0.0021)	(0.0072)	(0.0139)	(0.0055)	(0.0050)	(0.0056)
fincrises	0.1048*	0.1567***	0.0586	0.0541	0.0521	-0.0822	0.1440**	-0.0208	-0.0072	-0.0226
	(0.0540)	(0.0601)	(0.0677)	(0.0640)	(0.0678)	(0.0773)	(0.0726)	(0.0585)	(0.0632)	(0.0586)
Constant	2.7254***	2.5981***	2.5692***	2.7932***	2.5933***	2.6301***	3.8374***	3.6722***	3.2313***	3.7282***
	(0.1985)	(0.2036)	(0.2118)	(0.2264)	(0.2119)	(0.3979)	(0.3489)	(0.3638)	(0.3791)	(0.3600)
Observations	247	217	192	185	194	94	124	149	156	147
R-squared	0.9121	0.9109	0.9031	0.9058	0.9003	0.9235	0.9138	0.9262	0.9214	0.9251
No. of banks	50	53	41	40	41	27	35	38	42	36

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1 - *Source: Graphed by authors based on data from World Development Indicators and Doing Business Databases – Note: banking stability (z-score), private sector-led financial transparency regulation (PrSLFTR), public sector-led financial transparency regulation (PuSLFTR), foreign bank assets (FBA), ease of shareholder suit index (ESHS), extent of Disclosure index (ExD), extent of director liability index (ExDL), strength of investor protection (SIP) and extent of business disclosure (ExBD), foreign bank presence (FBP), country level corporate governance (clcg), nim – net interest mrgins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises – financial crises, PuSLFTR - private sector led financial transparency regulation*

Appendix 7: Effect of Foreign Bank Presence on Financial Stability across Strong and Weak Different Country Level Corporate Governance Structures – Loan Loss Reserve Regime

	ESHS	*ExD*	*ExDL*	*SIP*	*ExBD*	*ESHS*	*ExD*	*ExDL*	*SIP*	*ExBD*
VARIABLES	Private	Private	Private	Private	Private	Private	Private	Private	Private	Private
FBP	0.0135***	0.0260***	0.0230***	0.0231***	0.0225***	0.0153*	-0.0003	0.0032	0.0032	0.0033
	(0.0023)	(0.0035)	(0.0037)	(0.0039)	(0.0035)	(0.0083)	(0.0019)	(0.0039)	(0.0039)	(0.0039)
nim1	-0.0465***	-0.0314	-0.0291	-0.0346	-0.0285	-0.0249	-0.0135	0.0694***	0.0704***	0.0683***
	(0.0177)	(0.0223)	(0.0197)	(0.0211)	(0.0195)	(0.0676)	(0.0234)	(0.0207)	(0.0209)	(0.0204)
nii	0.1377	0.3438**	0.2174*	0.2144	0.2173*	0.1114	-0.1510	-0.0362	-0.0291	-0.0356
	(0.1116)	(0.1586)	(0.1300)	(0.1350)	(0.1299)	(0.4505)	(0.1931)	(0.1903)	(0.1930)	(0.1899)
cap	0.9139***	0.9125***	0.9487***	0.9465***	0.9490***	0.8433***	0.8144***	0.8467***	0.8450***	0.8468***
	(0.0338)	(0.0317)	(0.0347)	(0.0358)	(0.0343)	(0.0706)	(0.0776)	(0.0534)	(0.0538)	(0.0535)
ci	-0.0929***	-0.1067**	-0.0701***	-0.0761***	-0.0683***	-0.0386	-0.0702**	-0.0360	-0.0350	-0.0356
	(0.0283)	(0.0418)	(0.0264)	(0.0269)	(0.0263)	(0.0306)	(0.0333)	(0.0283)	(0.0285)	(0.0282)
HERF	-0.1304*	-0.1720	-0.3019***	-0.3069***	-0.2984***	-0.1693	-0.2063**	0.0092	0.0137	0.0097
	(0.0709)	(0.1138)	(0.0861)	(0.1105)	(0.0858)	(0.2110)	(0.0933)	(0.0983)	(0.1002)	(0.0981)
size	-0.9124***	-0.9931***	-0.9507***	-0.9495***	-0.9492***	-0.9492***	-0.6744***	-0.9086***	-0.9074***	-0.9090***
	(0.0358)	(0.0420)	(0.0381)	(0.0390)	(0.0377)	(0.0891)	(0.0769)	(0.0756)	(0.0761)	(0.0756)
gdpc	0.2297**	-0.1675	0.1559	0.1515	0.1628	-0.3947	0.1877	-0.2192	-0.2102	-0.2219
	(0.1161)	(0.2951)	(0.1226)	(0.1256)	(0.1214)	(0.5298)	(0.1304)	(0.4079)	(0.4124)	(0.4086)
Lernerindex	1.9276***	-0.9949	0.2885	0.2750	0.3797	-0.9726	1.0395**	0.7833	0.8273	0.7323
	(0.3376)	(0.8442)	(0.5697)	(0.5913)	(0.5683)	(1.2492)	(0.4298)	(1.1433)	(1.1584)	(1.1373)
Inflation	0.0025	-0.0181	0.0043	0.0045	0.0042	0.0136*	-0.0022	0.0118**	0.0126**	0.0120**
	(0.0039)	(0.0156)	(0.0064)	(0.0067)	(0.0064)	(0.0082)	(0.0052)	(0.0054)	(0.0055)	(0.0053)
lnLLR	0.0162	0.0905***	0.0072	0.0089	0.0046	0.1417	-0.0855***	0.1066*	0.1070*	0.1069*
	(0.0203)	(0.0342)	(0.0221)	(0.0227)	(0.0220)	(0.0905)	(0.0308)	(0.0561)	(0.0563)	(0.0562)
fincrises	0.1251**	0.0260	0.1133	0.1172	0.1214*	-0.0758	-0.0309	0.0135	0.0128	0.0173
	(0.0607)	(0.1083)	(0.0711)	(0.0743)	(0.0705)	(0.1332)	(0.0663)	(0.1204)	(0.1215)	(0.1197)
Constant	2.8247***	3.2937***	2.6572***	2.6970***	2.6420***	3.1929***	2.7244***	2.7514***	2.7105***	2.7776***
	(0.2347)	(0.3739)	(0.2702)	(0.2846)	(0.2690)	(1.1134)	(0.3617)	(0.8175)	(0.8249)	(0.8117)
Observations	226	217	171	167	173	107	116	162	166	160
R-squared	0.9023	0.8465	0.8942	0.8864	0.8979	0.7814	0.9354	0.8383	0.8385	0.8395
No. of banks	50	62	41	40	41	36	35	47	51	45

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1 - *Source: Graphed by authors based on data from World Development Indicators and Doing Business Databases – Note: banking stability (z-score), private sector-led financial transparency regulation (PrSLFTR), public sector-led financial transparency regulation (PuSLFTR), foreign bank assets (FBA), ease of shareholder suit index (ESHS), extent of Disclosure index (ExD), extent of director liability index (ExDL), strength of investor protection (SIP) and extent of business disclosure (ExBD), foreign bank presence (FBP), country level corporate governance (clcg), nim – net interest mrgins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises –financial crises, lnLLR – loan loss provision regulation regime*

Appendix 8: Effect of Foreign Bank Presence on Financial Stability across Strong and Weak Different Country Level Corporate Governance Structures – No Regulatory Regime

	ESHS	*ExD*	*ExDL*	*SIP*	*ExBD*	*ESHS*	*ExD*	*ExDL*	*SIP*	*ExBD*
VARIABLES	Private	Private	Private	Private	Private	Private	Private	Private	Private	Private
FBP	0.0141***	0.0241***	0.0223***	0.0199***	0.0229***	0.0154***	-0.0014	0.0033	0.0039	0.0033
	(0.0020)	(0.0031)	(0.0041)	(0.0036)	(0.0039)	(0.0041)	(0.0021)	(0.0027)	(0.0027)	(0.0027)
nim1	-0.0466***	-0.0339	-0.0199	-0.0413**	-0.0175	-0.0727	-0.0106	0.0653***	0.0684***	0.0648***
	(0.0169)	(0.0207)	(0.0188)	(0.0189)	(0.0188)	(0.0536)	(0.0285)	(0.0219)	(0.0224)	(0.0219)
nii	0.1017	0.2374*	0.2373**	0.2029*	0.2421**	0.2172	0.0654	-0.0199	-0.0070	-0.0213
	(0.1009)	(0.1228)	(0.1175)	(0.1115)	(0.1173)	(0.3432)	(0.2258)	(0.1859)	(0.1946)	(0.1853)
cap	0.9190***	0.8994***	0.9173***	0.9370***	0.9208***	0.8412***	0.6489***	0.8540***	0.8421***	0.8543***
	(0.0292)	(0.0251)	(0.0323)	(0.0302)	(0.0322)	(0.0381)	(0.0875)	(0.0338)	(0.0344)	(0.0339)
ci	-0.0884***	-0.1033***	-0.0899***	-0.0964***	-0.0757***	-0.0323	-0.0746**	-0.0357	-0.0306	-0.0358
	(0.0256)	(0.0362)	(0.0256)	(0.0242)	(0.0272)	(0.0273)	(0.0381)	(0.0288)	(0.0290)	(0.0288)
HERF	-0.1275*	-0.1951**	-0.1627	-0.2614**	-0.1421	-0.1653	-0.0910	-0.1013	-0.0751	-0.1011
	(0.0667)	(0.0989)	(0.1014)	(0.1020)	(0.1026)	(0.1674)	(0.1047)	(0.1219)	(0.1158)	(0.1217)
size	-0.8986***	-0.8889***	-0.9111***	-0.9283***	-0.9154***	-0.8539***	-0.6122***	-0.8232***	-0.8099***	-0.8234***
	(0.0292)	(0.0259)	(0.0320)	(0.0302)	(0.0319)	(0.0458)	(0.0837)	(0.0434)	(0.0436)	(0.0435)
gdpc	0.2289**	-0.1331	0.0958	0.1545	0.0748	-0.3844	0.3000*	-0.1341	-0.1473	-0.1354
	(0.1115)	(0.2715)	(0.1220)	(0.1159)	(0.1224)	(0.4307)	(0.1601)	(0.3628)	(0.3662)	(0.3627)
Lernerindex	1.7269***	-0.9574	0.2380	0.2956	0.1021	-1.3018	0.7962	0.9880	0.9935	0.9742
	(0.3309)	(0.8059)	(0.6373)	(0.5333)	(0.6331)	(0.9033)	(0.5020)	(0.7891)	(0.7743)	(0.7849)
Inflation	0.0017	-0.0043	0.0057	0.0057	-0.0003	0.0158	0.0061	0.0104*	0.0128**	0.0104*
	(0.0036)	(0.0125)	(0.0066)	(0.0065)	(0.0071)	(0.0100)	(0.0057)	(0.0057)	(0.0059)	(0.0057)
fincrises	0.1000*	-0.0216	0.0568	0.0633	0.0527	-0.1528	-0.0760	-0.0209	-0.0232	-0.0188
	(0.0542)	(0.0882)	(0.0694)	(0.0667)	(0.0689)	(0.1158)	(0.0788)	(0.1059)	(0.1076)	(0.1058)
Constant	2.8131***	2.8951***	2.5627***	2.8468***	2.6005***	3.2133***	2.7676***	2.3586***	2.2062***	2.3690***
	(0.2004)	(0.2510)	(0.2215)	(0.2331)	(0.2201)	(0.5464)	(0.3650)	(0.5139)	(0.5024)	(0.5113)
Observations	247	245	192	185	194	122	124	177	184	175
R-squared	0.9082	0.8759	0.8804	0.8954	0.8803	0.8212	0.8818	0.8495	0.8442	0.8492
No.of banks	50	63	41	40	41	37	35	48	52	46

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1 - *Source: Graphed by authors based on data from World Development Indicators and Doing Business Databases – Note: banking stability (z-score), private sector-led financial transparency regulation (PrSLFTR), public sector-led financial transparency regulation (PuSLFTR), foreign bank assets (FBA), ease of shareholder suit index (ESHS), extent of Disclosure index (ExD), extent of director liability index (ExDL), strength of investor protection (SIP) and extent of business disclosure (ExBD), foreign bank presence (FBP), country level corporate governance (clcg), nim – net interest mrgins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises –financial crises.*

Appendix 9: Summary of Variables

Variables	Measurements	Sources	Expected Sign
Bank Stability (ZSCORE)	capital ratio + return on assets / standard deviations of return on assets	computed by authors based on data from BankScope	
Country Level Corporate Governance (CLCG)	Average of all country level corporate governance indicators	computed by authors based on data fromWorld Bank, Doing Business	+
Ease of Shareholder suits (ESHS)	The ease of shareholder suits index measures how likely plaintiffs are to access internal corporate evidence. It has six components: (i) whether shareholders owning 10% of the company's share capital have the right to inspect the Buyer-Seller transaction documents before filing a suit; (ii) whether shareholders owning 10% of the company's share capital can request that a government inspector investigate the Buyer-Seller transaction without filing a suit; (iii) what range of documents is available to the shareholder plaintiff from the defendant and witnesses during trial; (iv) whether the plaintiff can obtain cate-gories of relevant documents from the defendant without identifying each document specifically; (v) whether the plaintiff can directly examine the defendant and witnesses during trial (0-2); and (vi) whether the standard of proof for civil suits is lower than that for criminal cases.	World Bank, Doing Business project (http://www.doingbusiness.org/)	+
extent of Disclosure index (ExD)	The extent of disclosure index measures the approval and disclosure requirements of related-party transactions. It has five components: (i) whether it is the managing director alone, the board of directors, or the general meeting of shareholders the corporate body who can provide legally sufficient approval for the transaction (points are assigned depending on whether interested directors are permitted to vote or not); (ii) whether an external body (an independent auditor,	World Bank, Doing Business project (http://www.doingbusiness.org/)	+

	for example) must review the transaction before it takes place; (iii) whether disclosure by Mr. James to the board of directors or the supervisory board is required; (iv) whether immediate disclosure of the transaction to the public, the regulator or the shareholders is required; and (v) whether disclosure in periodic filings (for example, annual reports) is required		
extent of director liability index (ExDL)	The extent of director liability index measures when board members can be held liable for harm caused by related-party transactions and what sanctions are available. It has seven components: (i) whether shareholders can sue directly or derivatively for the damage the transaction causes to the company; (ii) whether a shareholder plaintiff can hold Mr. James liable for the damage the Buyer-Seller transaction causes to the company; (iii) whether a shareholder plaintiff can hold other executives and directors (the CEO, members of the board of directors or members of the supervisory board) liable for the damage the transaction causes to the company; (iv) whether Mr. James pays damages for the harm caused to the company upon a successful claim by the shareholder plaintiff; (v) whether Mr. James repays profits made from the transaction upon a successful claim by the shareholder plaintiff; (vi) whether Mr. James is disqualified upon a successful claim by the shareholder plaintiff; and (vii) whether a court can void the trans-action upon a successful claim by a shareholder plaintiff.	World Bank, Doing Business project (http://www.doingbusiness.org/)	+
strength of investor protection (SIP)	The extent of disclosure index, the extent of director liability index, and the ease of shareholder suit index. The index ranges from 0 (little to no investor protection) to 10 (greater investor	World Bank, Doing Business project (http://www.doingbusiness.org/)	+

	protection)		
extent of business disclosure (ExBD)	Disclosure index measures the extent to which investors are protected through disclosure of ownership and financial information. The index ranges from 0 to 10, with higher values indicating more disclosure.	World Bank, Doing Business project (http://www.doingbusiness.org/)	+
Financial Transparency (PrSLFTR)	Measures the number of individuals or firms listed by a private sector information sharing institutions with current information on repayment history, unpaid debts, or credit outstanding. The number is expressed as a percentage of the adult population.	World Development Indicators	+/-
Financial Transparency (PuSLFTR)	Measures the number of individuals and firms listed in a public credit registry with current information on repayment history, unpaid debts, or credit outstanding. The number is expressed as a percentage of the adult population.	World Development Indicators	+/-
Profitability (NIM)	Natural log of net interest margins	computed by authors based on data from BankScope	+/-
Non-Interest Income (NII)	Non-interest income/ total income	computed by authors based on data from Bank Scope	+
Capitalization (CAP)	Natural log of total equity	computed by authors based on data from Bank Scope	+
Efficiency (CI)	operating expenses / total operating income	computed by authors based on data from BankScope	-
Concentration (HERF)	(GrossLoans / sum(GrossLoans))^2	computed by authors based on data from BankScope	-
Foreign bank presence (FBP)	number of foreign banks / total number of banks	Global Financial Development	+/-
Foreign bank assets (FBA)	Asset of foreign banks/ total industry assets		+/-
Size	natural log of total assets	computed by authors based on data from data	-/+
Gross Domestic Product per Capita (GDPC)	sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products / total population	World Development Indicators	+
Lerner Index (Lerner)	(Price – Marginal Cost)/ Price	Global Financial Development	+
Inflation	changes consumer price index	World Development Indicators	-/+
Financial Crises	Dummy which assumes a value of 1 for	Dietrich and Wanzeried, 2011;	-/+

(FINCRISES)	years 2007, 2008 and 2009 and 0 otherwise	Goddard, Molyneux and Wilson, 2009

Table 10: Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ZSCORE	945	1.64	1.027	-4.228	4.524
PRSLTR	777	20.436	25.479	0	66.2
PUSLTR	777	5.366	13.842	0	82.6
CLCG	939	7.908	0.236	1.8	11.400
ESHS	947	6.449	2.138	1	10
EXDL	947	5.488	2.337	1	9
EXD	947	5.164	2.312	0	8
SIP	939	17.148	4.948	4	25
EXBD	947	5.248	2.244	0	8
NIM	739	7.587	2.646	-.511	13.535
NII	947	39.500	45.9	-3.333	559.4
CAP	965	6.798	3.103	-2.303	13.827
CI	939	1.476	8.871	-190.559	129.267
HERF	968	7.10	21.60	0	1
FOREIGNBANKS	656	41.419	21.388	0	94
SIZE	972	8.994	3.178	1.163	16.198
GDPC	716	6.90	14.1	-53.6	136.00
LERNER	634	29.00	10.40	-8.40	58.00
INFLATION	840	8.221	5.618	-.25	47.305
FINCRISES	973	.307	.462	0	1

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1 - *Source: Graphed by authors based on data from World Development Indicators and Doing Business Databases – Note: banking stability (z-score), private sector-led financial transparency regulation (PrSLFTR), public sector-led financial transparency regulation (PuSLFTR), foreign bank assets (FBA), ease of shareholder suit index (ESHS), extent of Disclosure index (ExD), extent of director liability index (ExDL), strength of investor protection (SIP) and extent of business disclosure (ExBD), foreign bank presence (FBP), country level corporate governance (clcg), nim – net interest margins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises –financial crises.*

Appendix 11: Pearson's Correlation

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
(1) ZSCORE	1.000																		
(2) PRSLTR	-0.350*	1.000																	
(3) PUSLTR	0.059	-0.308*	1.000																
(4) ESHS	-0.021	0.094*	0.226*	1.000															
(5) EXDL	-0.279*	0.456*	0.206*	0.291*	1.000														
(6) EXD	-0.137*	0.664*	-0.050	0.199*	0.398*	1.000													
(7) SIP	-0.197*	0.577*	0.166*	0.658*	0.780*	0.748*	1.000												
(8) EXBD	-0.148*	0.656*	-0.041	0.170*	0.401*	0.973*	0.725*	1.000											
(9) NIM1	-0.120*	0.379*	-0.258*	0.279*	0.087*	0.191*	0.253*	0.161*	1.000										
(10) NII	0.094*	-0.315*	0.127*	0.048	0.002	-0.127*	-0.042	-0.126*	-0.613*	1.000									
(11) CAP2	0.197*	-0.226*	0.070*	0.219*	-0.061*	-0.042	0.047	-0.063*	-0.184*	0.615*	1.000								
(12) CI	-0.049	-0.049	0.021	-0.022	0.008	-0.055*	-0.032	-0.055*	-0.075*	-0.264*	0.084*	1.000							
(13) HERF	0.079*	-0.106*	-0.027	-0.117*	-0.080*	-0.079*	-0.123*	-0.088*	-0.058	0.045	0.127*	0.072*	1.000						
(14) FOREIGNBAN	0.234*	-0.508*	0.203*	-0.010	-0.121*	-0.202*	-0.143*	-0.207*	0.041	-0.035	0.041	0.007	0.061	1.000					
(15) SIZE	0.102*	-0.238*	0.081*	0.233*	-0.039	-0.051	0.059*	-0.072*	-0.193*	0.629*	0.972*	0.080*	0.115*	0.041	1.000				
(16) GDPC	0.074*	-0.210*	-0.085*	-0.043	-0.169*	-0.132*	-0.168*	-0.149*	-0.086*	0.048	0.030	0.014	0.023	0.131*	0.028	1.000			
(17) LERNERINDEX	0.311*	-0.754*	0.402*	0.146*	-0.456*	-0.469*	-0.388*	-0.466*	-0.258*	0.219*	0.214*	0.015	0.031	0.453*	0.217*	0.099*	1.000		
(18) INFLATION	0.095*	-0.243*	-0.271*	-0.116*	-0.165*	-0.225*	-0.251*	-0.221*	-0.128*	0.138*	0.113*	0.052	0.052	0.031	0.121*	-0.023	-0.006	1.000	
(19) FINCRISES	-0.063*	-0.025	-0.068*	-0.053	-0.078*	-0.101*	-0.109*	-0.085*	-0.068*	0.024	-0.025	0.023	0.004	-0.037	0.002	0.030	-0.136*	0.159*	1.000

Standard errors in parentheses - Significance Level: *** p<0.01, ** p<0.05, * p<0.1 - *Source: Graphed by authors based on data from World Development Indicators and Doing Business Databases – Note: banking stability (z-score), private sector-led financial transparency regulation (PrSLFTR), public sector-led financial transparency regulation (PuSLFTR), foreign bank assets (FBA), ease of shareholder suit index (ESHS), extent of Disclosure index (ExD), extent of director liability index (ExDL), strength of investor protection (SIP) and extent of business disclosure (ExBD), foreign bank presence (FBP), country level corporate governance (clcg), nim – net interest mrgins, nii – non-interest income, cap – capital adequacy, ci – cost efficiency, herf – concentration, size – bank size, gdpc – gross domestic product per capital; lerner – market power, inflation – economic stability, fincrises –financial crises.*