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# **Motivations for Foreign Bank Entry in Ghana: A Country-level Analysis**

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## **Abstract**

The number of foreign banks operating in emerging market economies has increased significantly in recent years. Financial globalization and technological advancement have dramatically altered the global banking landscape, resulting in an increasing pattern of international banks' involvement. Aside from the global forces driving bank penetration, this study seeks to assess how country-level factors motivate foreign bank entry in Ghana. In doing so, we employ quarterly data spanning 2000Q1-2017Q4. Applying the autoregressive distributed lag (ARDL) technique, the results establish that while corruption significantly drives foreign bank entry in both short- and long-run, the impact of political stability on foreign bank entry is significant only in the long-run. The findings also show that banking sector profitability and banking sector stability matter for foreign bank entry in both short- and long-term. The study presents some implications for policy based on the findings.

**Keywords:** Foreign bank entry, Corruption, Political stability, ARDL, Ghana

**JEL Classification:** G20, G21

## **1.0 Introduction**

Since the Financial Sector Adjustment Program (FINSAP) was initiated in 1988 as part of the Economic Recovery Program in the 1980s, the Ghanaian banking sector has witnessed substantial transformation, and it has continued to evolve new guidelines and regulations to maintain stability in recent years (Owusu-Antwi, 2009; Yakubu, 2016). The liberalization of the financial sector has also resulted in a rise in the number of banks in the country. According to the Ghana Banking Survey, the total number of registered banks in Ghana increased from 28 in 2014 to 34 in 2018. And per the 2019 Bank of Ghana list of licensed banks, the total number of registered commercial banks declined to 23, including domestic and foreign-registered banks, following the recent bank recapitalization in Ghana. The banking sector in Ghana has become more efficient and competitive as the number of banks increases (Ünvan & Yakubu, 2020).

In recent years, foreign bank penetration into emerging market economies has increased significantly. Foreign banks account for over fifty percent of total banking assets in most developing countries, including Ghana. The growing trend of foreign banks' presence is a consequence of financial globalization and technological advancements that have drastically altered the global banking landscape.

Due to the growing involvement of foreign banks in the domestic market over the last few decades, many empirical works have examined the effect of foreign banks' entry on the banking sector and overall economic growth (see Poghosyan, 2010; Xu, 2011; Zhu, 2011; Acheampong, 2013; Boadi, 2015; Lubis et al., 2015; Hamada, 2018; Chen et al., 2019; Akwei, 2020; Wang & Giouvriss, 2020; Fiado et al., 2021; Yin, 2021). A key aspect that has been given less attention is the factors motivating foreign banks to operate in a particular market. We argue that aside from the global forces in terms of innovations driving bank penetration, there are country-level factors that are likely to encourage foreign banks to

establish their presence in the host country. Empirically, few studies have looked into the factors that influence foreign bank entry. Among the limited attempts, Focarelli and Pozzolo (2001) found that profit prospects and banking sector development drive international banks to operate in the Organisation for Economic Co-operation and Development (OECD) countries. Wezel (2004) revealed that foreign direct investments, the host country's enhanced banking industry, and low country risk all influence German banks' decisions to invest in Asia, Latin America, and Eastern Europe. According to Bumin (2007), the Turkish economy's potential growth, the expected high demand for banking services, and the banking sector's higher profit ratios entice foreign banks to invest in the Turkish banking sector. Hryckiewicz and Kowalewski (2008) established that the low level of financial sophistication of the host country, the home nation's legal origin, the scale of economic growth rate differentials amid home and host economies, and the distance between host countries and the foreign bank headquarters are the primary determinants of foreign bank entry in Central Europe. Tong (2013) discovered that foreign bank entry in China is positively linked to the economic development level of the home country, FDI from the home country to China, and international trade volumes between the home country and China. Belaounia et al. (2016) noted that changes in the tax system motivate banks to move their operations to Southeast Asia from the Middle East and Latin America. They also established that a rise in country risk drives bank entry into Eastern Europe. According to Isaev (2016), rule of law and net interest margin are important motivators for foreign banks to operate in Central Asia. Massand and Gopalakrishna (2017) evidenced that foreign banks pursue their customers from their home country to provide services to them in the host country. A similar finding is documented by Aghababae et al. (2010) in a cross-country analysis.

From the brief empirical review, studies in developing economies, especially in Africa, are virtually non-existent, leaving a gap for further research into the factors influencing foreign

bank entry based on country-level dynamics. This study, therefore, seeks to assess the drivers of foreign banks' entry into the host country in the case of Ghana. Specifically, we assess how corruption and political stability influence foreign bank entry while controlling for the effect of other key factors that can potentially influence banks' decisions to operate in a host country.

The study contributes significantly to the banking literature given that we are unaware of any study investigating the determinants of foreign bank entry in Ghana. We, therefore, present pioneering evidence on foreign bank entry drivers in Ghana, and also add to the scanty research on the subject matter globally and not only in Africa. Apart from this, applying the Autoregressive Distributed Lag (ARDL) technique allows us to examine the long- and short-term impact of the variables of interest on foreign bank entry.

The remainder of the study is structured as follows: The methodology is covered in Section 2. Section 3 discusses the empirical findings, and Section 4 concludes the paper with policy recommendations.

## **2.0 Methodology**

### ***2.1 Data and Sources***

We use quarterly data spanning from 2000Q1 to 2017Q4. Our dependent variable is foreign bank entry (*fnb*) defined as the ratio of foreign banks to total banks in Ghana. The independent variables include corruption (*corr*), political stability (*pol*), regulatory quality (*regqua*), banking sector profitability (*pro*), and banking sector stability (*stab*). Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. The World Bank measures political stability as the perceptions of the likelihood of political instability and/or politically motivated violence, including terrorism. Also, per the World Bank's definition, regulatory quality "captures perceptions of the ability

of the government to formulate and implement sound policies and regulations that permit and promote private sector development.” We measure banking sector profitability by return on equity expressed as a ratio of net income to shareholders’ equity. Compared to other profitability measures, ROE helps investors gauge how their investments are generating income. Banking sector stability is measured by banks' z-score which describes the probability of default of a country's banking system. For corruption, political stability, and regulatory quality, they are scored from -2.5 to +2.5, where a higher score is better. Data are gleaned from the Global Financial Development Database, Worldwide Governance Indicators, and the World Development Indicators of the World Bank.

## ***2.2 Model Specification***

The empirical model is presented as follows to evaluate the impact of the selected independent variables on foreign bank entry:

$$fnb_t = \alpha_0 + \beta_1 corr_t + \beta_2 pol_t + \beta_3 regqua_t + \beta_4 pro_t + \beta_5 stab_t + \varepsilon_t \quad (1)$$

where *fnb*, *corr*, *pol*, *regqua*, *pro*, and *stab* are described previously. The error term and sample period, respectively, are denoted by  $\varepsilon$  and  $t$ . The intercept is represented by  $\alpha$  and the coefficients of the independent variables are denoted by  $\beta_1$  to  $\beta_5$ .

## ***2.3 Analytical Approach***

The study seeks to scrutinize the short-run and long-run determinants of foreign bank entry. Hence, we apply the Autoregressive Distributed Lag (ARDL) model proposed by Pesaran and Shin (1998) and Pesaran et al. (2001). Before employing the ARDL model, the study first performs the unit root test to determine how the variables are integrated. Conducting the unit root test is a prerequisite for the application of the cointegration techniques such as the ARDL method. The ARDL technique is feasible for variables that are integrated at level

(I(0)) or first difference (I(1)). Another advantage of the technique is that it is appropriate for small samples (Yakubu, 2020). The ARDL model is described as follows:

$$fnb_t = \alpha_0 + \sum_{i=0}^n \alpha_{1i} \Delta fnb_{t-1} + \sum_{i=0}^n \alpha_{2i} \Delta corr_{t-1} + \sum_{i=0}^n \alpha_{3i} \Delta pol_{t-1} + \sum_{i=0}^n \alpha_{4i} \Delta regqua_{t-1} + \sum_{i=0}^n \alpha_{5i} \Delta pro_{t-1} + \sum_{i=0}^n \alpha_{6i} \Delta$$

where  $\Delta$  represents the difference operator.  $\alpha_1 - \alpha_6$  and  $\delta_1 - \delta_6$  are short-run and long-run coefficients respectively.  $\rho$  denotes the coefficient of the error correction term (ECT), where  $ECT_{t-1}$  is the error correction term lagged by one period.

To examine the long-term relationship between the variables, we use bound testing. The null hypothesis, which states that there is no long-run relationship between the variables, is therefore tested against the alternative hypothesis of cointegration as follows:

$$H_0: \delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = 0 \quad (3)$$

$$H_1: \text{At least one } \delta_i \neq 0, i=1, \dots, 6 \quad (4)$$

The two critical limits, the upper and lower bounds, are used to test for the presence of cointegration. When the F-statistics exceeds the upper critical bound I(1), a long-run relationship is established.

### 3.0 Empirical Results

#### 3.1 Descriptive Statistics and Correlation Analysis

Table 1 shows the descriptive statistics for all the variables. The average value of foreign bank entry is 0.535, indicating that foreign banks account for more than 50% of banks operating in Ghana. The mean values of corruption and political stability are -0.132 and -0.008 respectively. Profitability has the highest standard deviation, indicating greater volatility of profits of Ghanaian banks.

Following Kennedy's (2003) benchmark correlation coefficient of 0.80, we conclude that our independent variables have weak correlation coefficients since they are less than 0.80,

implying that multicollinearity is not a problem. We use the variance inflation factor (VIF) analysis to confirm that there is no multicollinearity. For variables to exhibit free multicollinearity problems, the VIF values must be less than 10 with tolerance values being greater than 0.10. Our findings support these assumptions.

Table 1. Descriptive Statistics and Correlation Analysis

	<i>fnb</i>	<i>corr</i>	<i>pol</i>	<i>regqua</i>	<i>pro</i>	<i>stab</i>
Mean	0.535	-0.132	-0.008	-0.072	34.479	7.148
Maximum	0.630	0.039	0.168	0.128	75.325	8.920
Minimum	0.400	-0.367	-0.360	-0.448	11.766	4.470
Std. Dev.	0.077	0.120	0.125	0.163	16.347	1.156
<b>Correlation and Multicollinearity Analysis</b>						
<i>fnb</i>	1.000					
<i>corr</i>	-0.084	1.000				
<i>pol</i>	0.595	-0.030	1.000			
<i>regqua</i>	0.395	0.692	0.320	1.000		
<i>pro</i>	-0.426	-0.502	-0.077	-0.488	1.000	
<i>stab</i>	0.840	-0.318	0.614	0.147	-0.125	1.000
VIF		3.40	1.81	2.83	1.57	2.38
Tolerance		0.294	0.551	0.354	0.636	0.420

### 3.2 Unit Root Tests

The results of the unit root test based on the Augmented Dickey-Fuller (ADF) test are shown in Table 2. Aside from political stability which shows stationarity at level (I(0)) at 5% significance level, the remainder of our parameters become stationary at first difference (I(1)). Given the mixed order of integration, our study meets the prerequisites for using the ARDL model.



Table 2. Unit Root Test Results

Augmented Dickey-Fuller (ADF) unit root test		
Variables	At level I(0)	At first difference I(1)
<i>fnb</i>	-1.589	-3.023**
<i>corr</i>	-2.310	-8.252***
<i>pol</i>	-3.387**	-8.311***
<i>regqua</i>	-1.913	-8.248***
<i>pro</i>	-1.599	-8.278***
<i>stab</i>	-2.178	-8.412***

Note: \*\* and \*\*\* denote stationary at 5% and 1% significance level

### 3.3 Bounds Testing for Cointegration

The F-statistic as shown in Table 3 is greater than the upper critical bound value at 1% significance, according to the bounds-testing results. This indicates that our variables are cointegrated. As a result, we estimate the long-run relationship between foreign bank entry and the independent factors.

Table 3. Bounds Test for Cointegration Relationship

		Significance	Critical values	
			I(0)	I(1)
F-Statistic	11.487***	10%	2.08	3.00
k	5	5%	2.39	3.38
		1%	3.06	4.15

*k* represents the number of independent variables and \*\*\* denotes 1% significance level

### 3.4 Regression Results

From Table 4, at 1% significance level, the coefficient of the lagged Error Correction Term ( $ECM_{t-1}$ ) is negative and statistically significant. The coefficient value of -0.4124 indicates that the model's disturbance is decreased by 41.24% quarterly as it approaches equilibrium. The F-statistic and its probability value indicate that the regression model is statistically significant in general, implying that the variables in the model are significant factors

explaining foreign bank entry in Ghana. The Durbin-Watson statistic of 2.2545 indicates that the independent variables have no autocorrelation, making the model more accurate.

Table 4. ARDL Estimation Results

ARDL (4, 3, 3, 4, 4, 4)					
<i>Long-run Estimates</i>					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Notes:
<i>corr</i>	-0.2181	0.0840	-2.5957	0.0131**	** and
<i>pol</i>	0.4931	0.0903	5.4593	0.0000***	
<i>regqua</i>	0.0064	0.0547	0.1174	0.9071	***
<i>pro</i>	-0.0029	0.0005	-6.1395	0.0000***	
<i>stab</i>	0.0257	0.0086	2.9765	0.0049***	repress
<i>Constant</i>	0.4478	0.0713	6.2804	0.0000***	
<i>Short-run Estimates</i>					
<i>fnb<sub>t-3</sub></i>	-0.2079	0.0745	-2.7915	0.0080***	ent 5%
<i>corr<sub>t-2</sub></i>	0.1355	0.0310	4.3729	0.0001***	and
<i>pol<sub>t-2</sub></i>	0.0343	0.0276	1.2422	0.2214	
<i>regqua<sub>t-3</sub></i>	-0.0043	0.0169	-0.2512	0.8030	1%
<i>pro<sub>t-3</sub></i>	0.0013	0.0003	4.3424	0.0001***	
<i>stab<sub>t-3</sub></i>	-0.0183	0.0041	-4.4822	0.0001***	statisti
<i>ECT<sub>t-1</sub></i>	-0.4124	0.0422	-9.7657	0.0000***	
R-square	0.8383				cal
Adj. R-square	0.7645				
Durbin-Watson stat.	2.2545				signific
F-Statistic	114.9487				
Prob. (F-Statistic)	0.0000				

respectively.

From the short-run estimates, corruption level significantly induces foreign bank entry in Ghana. This reflects the actual case in Ghana where most businesses especially new entrants make significant payments to public officials to dodge bureaucratic processes at the time of incorporation. Corruption in the long-run, however, exhibits an indirect significant effect on foreign bank entry, suggesting that a higher level of corruption impedes bank entry in Ghana in the long-term. This also indicates that regardless of the level of perceived corruption, foreign banks may not be willing to pay bribes to establish their presence in the country.

Political stability shows a positive influence on foreign bank entry regardless of the time period and the impact is highly significant in the long-run albeit insignificant in the short-

term. This reflects the conducive political climate the country has been enjoying over the years which is crucial for foreign capital inflows.

The impact of regulatory quality on foreign bank entry in both the short- and long-run is insignificant suggesting that the regulatory measures put in place by the Bank of Ghana do not really play a significant role in attracting more foreign banks into the country.

In the short-run, banking sector profitability exerts a positive significant impact on foreign bank entry, suggesting that as banks' profits in Ghana increase, foreign banks are motivated to establish their presence in the country to benefit from the profit growth. This result is in line with the findings of Pozzolo (2001), Bumin (2007), and Isaev (2016). In the long-run, however, bank profit and foreign bank entry are negatively and significantly related implying that foreign banks are still motivated to remain in operation even with the decreasing profit level. This can be attributed to the diversified nature of most foreign banks.

The stability of the banking sector has a significant effect on foreign bank entry. Though the short-run impact is negative, the positive long-run effect of stability on bank entry indicates that the overall soundness of the domestic banking system is critical for foreign banking institutions in their decision to operate in the country.

### ***3.5 Diagnostic Tests Results***

The study performed the heteroscedasticity test using the Autoregressive Conditional Heteroskedasticity (ARCH) approach to ensure that there is no heteroscedasticity problem. Likewise, we check for serial correlation using the Breusch-Godfrey Serial Correlation LM test. We can deduce from the diagnostic test results in Table 5 that our model has no serial correlation or heteroscedasticity issues. The Jarque–Bera test and the Ramsey RESET, respectively, display a normal distribution and no functional form misspecification.

Table 5. Diagnostic Tests

Test	F-statistics	Prob.
Serial Correlation	1.614	0.212
Heteroscedasticity	0.037	0.849
Ramsey RESET	1.209	0.278
Normality	4.546	0.103

The CUSUM and CUSUM of squares plots in Figure 1 and Figure 2 respectively show that our estimated model at 5% significance level is stable given that the CUSUM lines are in the critical boundaries.

Figure 1. Plots of CUSUM

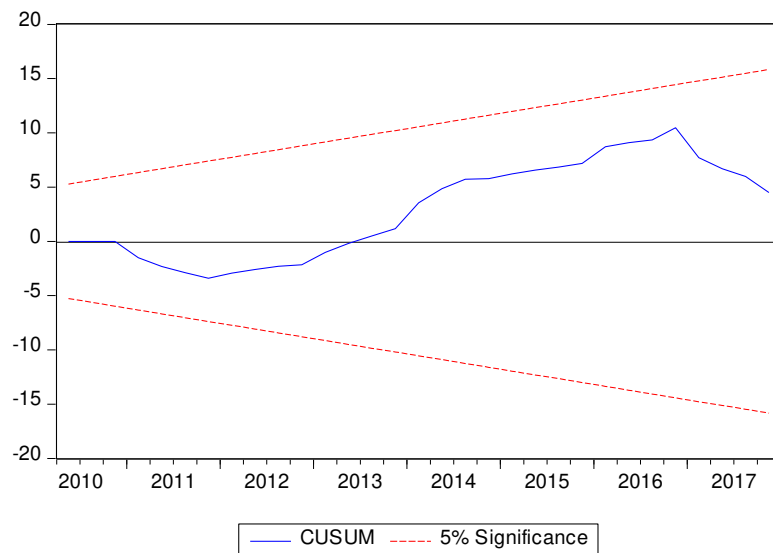
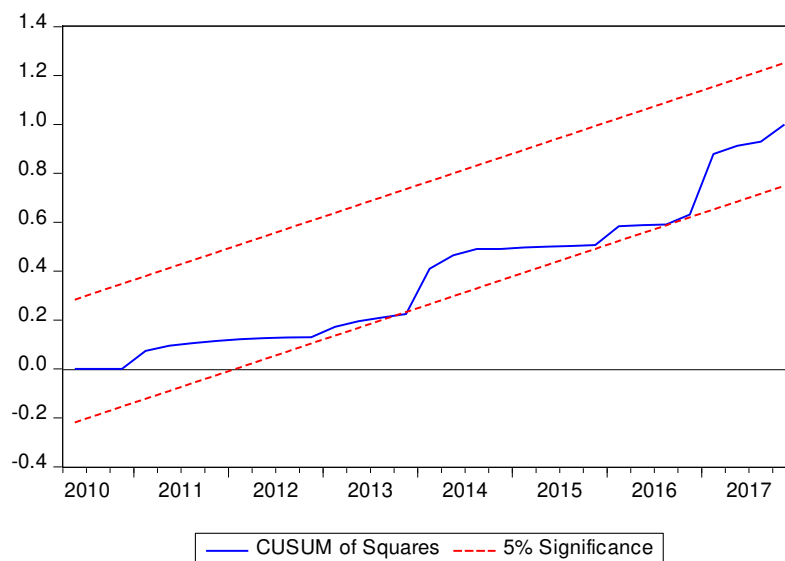


Figure 1. Plots of CUSUM of Squares



#### **4.0 Conclusion and Policy Implications**

This study assesses the influence of country-level factors, specifically perceived corruption and political stability on foreign bank entry in Ghana over the period 2000Q1-2017Q4. Deploying the Autoregressive Distributed Lag (ARDL) estimation technique, the findings evidence that corruption, banking sector profitability, and bank stability are significant long and short-term determinants of foreign bank entry in Ghana. Political stability also exerts a positive significant effect on foreign bank entry in the long-run. The results practically imply that policymakers must strengthen corruption control mechanisms to make the business environment more alluring for banks. Developing countries and not only Ghana must democratize their political structures in order to minimize political risk and improve governmental cohesion, as countries with stable political frameworks are more appealing to foreign corporations including banks. Another important policy implication is that banking sector stability measures must be instituted to ensure confidence in the sector. For instance, in addition to addressing the capital shortfalls of banks through capital requirements, there is the need for the Bank of Ghana to implement measures by which banks can reduce non-performing loans since they are always a subject of worry for banks and impede the overall soundness of the banking sector. The main limitation of this study is that it dwelled on a single country, and the results may not apply to other countries. We, therefore, suggest that future research should consider a larger sample of African countries with different panel techniques. Another limitation is that we focus on a few variables to explain foreign bank entry. The analysis will be more comprehensive if further studies could consider how other factors such as bureaucracy, government effectiveness, and many others influence foreign banks' entry decisions.

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