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Does entrepreneurship matter for financial development during elections? Evidence from the African context

Daniel Ofori-Sasu[a], Prince Adjei[b], Isaac Kyere[c] and Mark Edem Kunawotor[d]

[a]Business School Department of Finance, University of Ghana, Accra, Ghana; [b]Department of Economics, University of Ghana, Accra, Ghana; [c]Department of History, University of Ghana, Accra, Ghana; [d]Department of Finance, University of Professional Studies, Accra, Ghana

ABSTRACT

This study examines the moderating effect of elections on the relationship between entrepreneurship and financial development using the dynamic system GMM for a dataset of 42 African economies over the period 2004–2022. First, the study examines the independent effects of entrepreneurship and elections on financial development. Second, it examines the mediating effect of entrepreneurship on the election-finance nexus by regressing elections on entrepreneurship. The study establishes that elections reduce entrepreneurship and, consequently, reduce financial development. It also shows a positive entrepreneurship-finance nexus, indicating that countries that open their economy for entrepreneurship can increase the level of financial development. Moreover, we provide evidence to affirm that the positive effect of entrepreneurship on financial development is amplified during election years. Therefore, policymakers can harness the political energy, entrepreneurial activities, and public engagement typical of elections to drive deeper and accelerate the pace of entrepreneurship and financial development during elections. The originality of this study lies in its novel exploration of whether election cycles influence the relationship between entrepreneurship and financial development, a dynamic that has received limited attention in existing literature, particularly within the African context.

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1. Introduction

Over the past two decades, there has been a notable surge in entrepreneurship worldwide due to the financial and economic liberalization that has taken place in most economies, particularly in developing nations (Ajide & Ojeyinka, 2022; Bianchi, 2012; Fritsch & Changoluisa, 2017; Gaies et al., 2023; Jiang et al., 2019; Liguori et al., 2024; Quadrini, 2009). This is likely attributed to the resource blessing hypothesis, which suggests that many nations benefit from abundant resource allocation. The presence of natural resources undoubtedly facilitates business operations and instills self-confidence in entrepreneurs, leading to the effective distribution of resources and capital via the financial market (Huynh & Tran, 2023; Ofori-Sasu et al., 2023; Tang et al., 2022). Thus, a country's capacity to support and expand entrepreneurial activities directly influences the growth and depth of its financial system by increasing demand for credit, investment, and financial services. Strong entrepreneurship drives innovation and business formation, which in turn stimulates financial sector development through broader financial inclusion and capital market engagement. Consequently, the abundance of resources in a country enhances entrepreneurship and fosters a well-developed financial market. Entrepreneurship leads to the effective distribution of resources and capital via the financial market by creating new businesses that seek funding, thereby channeling savings and investments into productive ventures. This process helps allocate capital to high-potential sectors, improves market efficiency, and drives innovation and economic growth.

CONTACT Daniel Ofori-Sasu dosasu@ug.edu.gh, doforisasu@yahoo.com University of Ghana Business School, Department of Finance, P.O. Box LG 78, Legon-Accra, Ghana

Even though several theoretical and empirical studies have demonstrated the effect of financial development on entrepreneurship in both advanced and developing economies (Dutta & Meierrieks, 2021; Dutta & Sobel, 2018), most studies have not empirically assessed the true impact of entrepreneurship on financial development (see Acs et al., 2009; Afolabi, 2015; Agarwal et al., 2010; Fritsch & Changoluisa, 2017).

The study is motivated by the fact that entrepreneurship and financial development are blessings for developing economies, and for that matter, the political environment plays a significant role. Schumpeter (1934) posits entrepreneurs as agents of innovation and economic change, whose ability to create and appropriate value depends on institutional and economic stability. Mishra and Zachary (2014) elaborate on this by highlighting the role of entrepreneurial intention and resource leverage in unpredictable environments. The financial intermediation theory (Greenwood & Jovanovic, 1990; Levine, 1997) explains the mutual reinforcement between financial development and entrepreneurship: financial systems support entrepreneurs with capital and services, while entrepreneurial activity stimulates demand for and innovation in financial markets. However, during election periods, theories such as public choice theory (Nordhaus, 1975) and political business cycle theory (Rogoff, 1990) suggest that uncertainty and policy distortions can deter entrepreneurial investment and disrupt financial intermediation.

To further explain these concepts, recent literature emphasizes that the overall relationship between entrepreneurship and financial development may rely on several related factors that affect the magnitude of the impact (Adusei, 2016; Ajide & Ojeyinka, 2022; Gaies et al., 2023; Kar & Özşahin, 2016; Ofori-Sasu et al., 2023; Tran & Huynh, 2022; Wujung & Fonchamnyo, 2016). For instance, studies like those by Ofori-Sasu et al. (2023) and Tran and Huynh (2022) highlight the role of macroeconomic stability, institutional quality, and governance in moderating this relationship. When institutional frameworks are weak or political environments are unstable, the financial benefits typically associated with entrepreneurship may be diminished or delayed. In politically unstable environments or where institutions are weak, the positive impact of entrepreneurship on financial development is often reduced or delayed. For instance, Elections can increase uncertainty, weaken legal protections, distort market incentives, and crowd out private investment, all of which discourage entrepreneurs and limit their interaction with formal financial systems. As a result, even when entrepreneurial activity increases, it may not translate into broader financial development due to limited access to finance, informality, and delayed policy reforms.

Additionally, Ajide and Ojeyinka (2022) and Gaies et al. (2023) show that access to credit, financial inclusion policies, and regulatory quality significantly condition how effectively entrepreneurial activity can translate into financial system development. These moderating factors determine whether entrepreneurial ventures gain adequate support, financing, and legitimacy in the market. Kar and Özşahin (2016) and Wujung and Fonchamnyo (2016) argue that the stage of economic development also matters, developing economies often lack the sophisticated financial instruments and institutional infrastructure needed to support and scale entrepreneurial ventures effectively. In contrast, in more developed economies, the presence of deep capital markets and effective legal systems can amplify the positive effects of entrepreneurship on financial development. Similarly, Adusei (2016) emphasizes that the type of entrepreneurship, whether necessity-driven or opportunity-driven, also affects its contribution to financial development. Opportunity-driven entrepreneurs tend to innovate and expand, demanding more complex financial services and thereby deepening financial markets (Fuentelsaz et al., 2015). In contrast, necessity-driven entrepreneurship might not exert the same developmental pressure on financial institutions (Fuentelsaz et al., 2015).

Despite efforts to develop entrepreneurship, finance, and the institutions that support it, the outcome of the determinants of financial development has been uneven throughout the world. Interestingly, the electoral cycles, a country's legal and political system, its democracy, and trade openness are prominent explanations for this variation (Agbloyor, 2019; Murshed et al., 2023; Ozili, 2023). For instance, political business cycles during election periods, often driven by heightened political uncertainty and economic disparities, can affect not only the overall state of the economy but also the ease of doing business and the relationship between entrepreneurship and financial development (see Julio & Yook, 2012). Thus, to fully comprehend the relationship between entrepreneurship and financial development, we must also account for the political cycles, especially elections, and how they influence the entrepreneurship-finance nexus.

In the context of this study, on the one hand, entrepreneurship is conceptualized as a mediating variable in the relationship between elections and financial development. Elections, particularly in developing regions like Africa, are often associated with heightened political uncertainty, shifts in policy direction, and changing government priorities. These dynamics can directly impact financial markets by influencing investor confidence, risk perception, and institutional stability (see Awad & Ragab, 2018; Murshed et al., 2023; Ozili, 2023). However, the presence and intensity of entrepreneurial activity during election periods can play a critical intervening role, shaping how these political events ultimately affect financial development. Specifically, the study posits that entrepreneurship may serve as a channel through which the impact of elections on financial development is transmitted and possibly transformed. During election years, increased public engagement, campaign-driven investment, and government efforts to stimulate economic activity can create a fertile environment for entrepreneurial ventures. In turn, this surge in entrepreneurial activity may stimulate demand for financial services, leading to the expansion and deepening of financial markets. Conversely, if entrepreneurship is suppressed due to political instability or policy uncertainty, the negative effects of elections on financial development may be exacerbated.

On the other hand, studies that look at whether elections moderate the relationship between entrepreneurship and financial development in Africa are lacking, despite the importance of political business cycles and the abundance of resources in Africa (Awad & Ragab, 2018; Murshed et al., 2023; Ozili, 2023). Given the above background, the current study looks at the independent effects of entrepreneurship and elections on financial development, and the moderating effect of elections on the relationship between entrepreneurship and financial development.

First, the current study attempts to empirically examine the mediating effect of entrepreneurship on the relationship between election and financial development. This is because political institutions are more pro-business, and that election may provide good signals for entrepreneurs to benefit from it (Beland & Unel, 2019), resulting in an election that benefits entrepreneurship. However, political unpredictability surrounding elections may have a detrimental effect on entrepreneurship (Chinchwadkar, 2020). As a result, there is no clear conclusion in the discussion of whether elections affect financial development through entrepreneurship in developing nations, particularly in Africa. This calls for an investigation of the effect of elections on entrepreneurship from the African context.

Second, the study also looks at the independent impacts of elections and entrepreneurship on financial development. Previous studies have contended that improved levels of entrepreneurial activities tend to promote financial development (Majeed et al., 2021; Tran & Huynh, 2022). Although entrepreneurship is known to positively influence financial development, and the link between elections and financial development remains inconclusive (Fungáčová et al., 2020; Roe & Siegel, 2011), existing literature has yet to empirically explore how entrepreneurship and elections independently affect financial development within the African context (see Borgholthaus et al., 2025; Brieger et al., 2024; Crawford et al., 2024; Hong et al., 2024; Lucas, 2024).

Finally, we investigate the effect of elections on the connection between entrepreneurship and financial development. Studies have tried to demonstrate how entrepreneurship and election play out in economic development (Borgholthaus et al., 2025; Brieger et al., 2024; Crawford et al., 2024; Hong et al., 2024; Lucas, 2024). However, these studies have not addressed the effect of elections on the entrepreneurship-finance nexus. For instance, Borgholthaus et al. (2025) explore how political party platforms influence entrepreneurial paths by showing that political transitions (e.g. elections) broadly affect entrepreneurial climate and financial development, hinting that party policies, or the lack thereof, might play a role in these observed effects. Brieger et al. (2024) highlight the complex interplay between democracy and entrepreneurship, particularly noting that democratic structures can both support and hinder entrepreneurial dynamics. Lucas (2024) applied a real options framework to show how regime changes influence entrepreneurial timing and activity in the U.S. and confirms that political uncertainty surrounding elections can deter entrepreneurial ventures. However, the African context, with less stable institutional frameworks, amplifies these effects, showing not just a delay in entrepreneurial decision-making but a tangible decline in entrepreneurship and its economic outcomes.

While Hong et al. (2024) discuss how policy entrepreneurship can elevate local innovations to national agendas, Muldoon et al. (2024) critiqued the failures of state-led entrepreneurial strategies, such as in

New Haven. Crawford et al. (2024) emphasize the role of state-backed financial mechanisms for SMEs by showing that financial development slows in tandem with reduced entrepreneurial activity, highlighting a gap in state mechanisms to protect or sustain economic momentum during political events. This underscores the need for such support systems to remain stable and proactive during elections, to buffer the disruptive effects on entrepreneurship and finance. In addition, the above-mentioned studies were focused on developed countries, developing countries, and less developed economies, neglecting the African context.

The main contribution of this paper lies in its novel integration of political cycles, specifically, election periods, into the analysis of the entrepreneurship-financial development nexus. By examining entrepreneurship as a mediator, this study provides a more nuanced understanding of the political economy in African countries. It moves beyond the traditional view of elections as purely disruptive events and explores how entrepreneurial dynamism can either buffer or amplify the economic consequences of political cycles. This mediating framework offers important policy implications, suggesting that fostering entrepreneurship, especially during politically sensitive periods, could be a strategic tool to sustain or even accelerate financial development. It does this by examining the effect of elections on entrepreneurship in Africa. It establishes the independent effects of entrepreneurship and elections on financial development. It also provides compelling empirical evidence that election events reduce the level of entrepreneurship, and the electoral cycles are catalysts for the entrepreneurial-finance nexus. Thus, elections amplify the positive effect of entrepreneurship on financial development in Africa. In essence, this paper deepens the understanding of how political events, specifically elections, interact with economic mechanisms in Africa, offering empirical validation that entrepreneurship positively affects financial development and that this relationship is significantly strengthened during election years. Its contribution lies in shedding light on the need for electoral-proof financial and institutional systems that can sustain entrepreneurial momentum regardless of political cycles. By situating this in an African context, it adds geographic and institutional diversity to a growing but still predominantly Western-centric literature on political institutions and entrepreneurship.

The originality of this study lies in its novel contribution by examining how entrepreneurship mediates the election-finance nexus, and whether election cycles influence the relationship between entrepreneurship and financial development, an area largely overlooked in existing literature, especially within the African context. Using data from 42 countries between 2004 and 2022 and employing dynamic panel techniques (System GMM), it finds that elections, contrary to common belief, can enhance the positive effect of entrepreneurship on financial development. This challenges traditional views of elections as purely disruptive and introduces a new academic and policy perspective: that electoral periods can be leveraged to stimulate entrepreneurship and financial sector growth in developing economies. The study offers policymakers trustworthy and consistent empirical results as a tool to promote financial development and entrepreneurship. These results will facilitate the creation of comprehensive policies that will support the establishment of a robust political business economy throughout election cycles.

The rest of the paper is organized into the literature review, methodology, empirical results and discussions, conclusion, and policy implications.

2. Literature review

2.1. Entrepreneurship, election, and financial development: an overview

Financial development, on the one hand, refers to the improvement in the quantity, quality, and efficiency of financial institutions, markets, and instruments that facilitate the allocation of capital, risk management, and intermediation of funds in an economy. It plays a crucial role in enabling businesses to expand, smoothing consumption, and supporting innovation through efficient capital allocation. Entrepreneurship, on the other hand, involves the identification and exploitation of business opportunities, often through the creation of new enterprises. Entrepreneurs drive job creation, technological innovation, and productivity growth. Opportunity-driven *entrepreneurs*, those motivated by market gaps rather than necessity, are central to structural transformation and economic dynamism. Their demand for credit, insurance, and payment systems help stimulate the development of financial markets, as financial

institutions respond by designing tailored products and services. The interplay between entrepreneurship and financial development is mutually reinforcing. Entrepreneurship fuels demand for finance, while financial development expands access to capital for innovative ventures. However, this relationship can be influenced by the political context, especially during election periods, which may introduce both opportunities and constraints for entrepreneurs and financial institutions. Understanding whether elections shape this relationship, whether they disrupt or enhance it, is essential, particularly in emerging economies where democratic processes and market institutions are still evolving.

Figures A1 and A2 illustrate the average values of ease of doing business (used here as a proxy for the entrepreneurial environment) and Financial Development across three regional groupings, advanced countries, developing countries, and Africa, during election periods and non-election periods between 2004 and 2022 (see Appendix A).

In Figure A1, advanced countries show the highest ease of doing business (60.3) and financial development (0.63). This indicates that even during elections, their institutional robustness supports entrepreneurship and sustains financial development. Developing Countries have a moderate ease of doing business (59.8) but experience a sharp drop in financial development (0.06), suggesting heightened political uncertainty during elections that undermines financial systems. Africa has a slightly higher ease of doing business than developing countries (59.95), but financial development remains very low (0.05). This suggests that despite moderate business regulation environments, African financial sectors remain highly vulnerable during elections (see Appendix A).

In Figure A2, advanced Countries show a slight decline in ease of doing business (58.9) and financial development (0.59), suggesting a marginal drop in entrepreneurial energy outside election cycles. Developing countries maintain similar ease of doing business (58.95), but financial development (0.065) remains weak, though slightly higher than during elections. It is observed in Figure A2 that Africa shows notable progress, as the ease of doing business score improves to 59.45, outperforming other developing regions, and financial development increases significantly to 0.54, especially when compared to previous election periods. This confirms that African financial systems are particularly sensitive to electoral cycles, with development significantly hampered during elections (see Appendix A).

It can be deduced that advanced countries show resilience in both entrepreneurship and finance during elections, likely due to stronger institutions and lower political risk. Developing countries, and particularly African economies, experience disruptions in financial development during elections, despite relatively stable ease of doing business. This divergence suggests that political risk mainly undermines financial intermediation rather than regulatory environments. For Africa, the contrast is most pronounced: while ease of doing business stays consistent, financial development plummets during elections, highlighting the region's institutional fragility and political sensitivity.

This reinforces the study's argument that elections in Africa tend to suppress financial development, not due to poor entrepreneurial policy per se, but because political uncertainty disrupts the financial ecosystem's ability to function effectively. This leads us to examine the effect of elections on the relationship between entrepreneurship and financial development in Africa.

2.2. Theories, empirics, and hypothesis development

From the 'Theory of Economic Development', published in 1934, Schumpeter emphasized the crucial role of the entrepreneur as the 'man of action' and the driving force behind economic change. According to Schumpeter (1934), entrepreneurs are responsible for combining productive factors, bringing them together, and coordinating productive resources. He defined economic development in terms of entrepreneurial activities, such as introducing new goods, implementing novel production methods, entering new markets, discovering new sources of raw materials, or reorganizing industries. In summary, Schumpeter highlighted the significance of entrepreneurs in creating economic value through their innovative actions and ability to spot and capitalize on opportunities for change and growth. Their role as catalysts for economic development remains a fundamental aspect of entrepreneurship theory.

Furthermore, entrepreneurship encompasses the process of value creation and appropriation carried out by entrepreneurs in an unpredictable environment, as opposed to just starting a new business (see Amin & Djankov, 2014; Mishra & Zachary, 2014). According to Mishra and Zachary (2014), the theory of

entrepreneurship, the theory of entrepreneurial value creation, employs a two-stage framework for value creation and appropriation to investigate the inner workings of the entrepreneurial process. This process relies on the entrepreneur's intention to achieve entrepreneurial rewards and encompasses key stages: identifying external opportunities, leveraging available resources to develop a competitive advantage, and obtaining external resources and dynamic capabilities to sustain value creation and secure rewards (Mishra & Zachary, 2014). The theory concludes that entrepreneurship is a process of value creation and appropriation, guided by the entrepreneur's intention to achieve entrepreneurial rewards. By identifying opportunities, leveraging resources, and building dynamic capabilities, entrepreneurs navigate the uncertain environment to create sustained value.

In addition, political factors, including elections and government policies, can significantly influence entrepreneurial activity by introducing uncertainty and instability that impact investment decisions (Julio & Yook, 2012). Incumbent governments may strategically manipulate economic policies before elections to create a favorable environment, leading to a pre-election rebound in the economy (Rogoff, 1990). Additionally, political stability can affect entrepreneurial rates, as unstable governments may fail to commit credibly to policies that encourage savings and investment (Dutta et al., 2012). Democracy, on the other hand, can have both positive and negative effects on entrepreneurship. While it may increase investment through improved economic policies and stability, it can also lead to increased demand for immediate consumption and potential expropriation of capital (Huntington & Dominguez, 1975; Persson & Tabellini, 1990). However, a strong democratic system with institutionalized redistribution and reduced income disparity can be beneficial for private investment (Feng, 2001).

Despite the theoretical recognition that elections can introduce uncertainty, the relationship between elections and entrepreneurship has received limited empirical attention, especially in the African context. Elections often generate heightened political risk, policy instability, and fears of regulatory changes, which can deter entrepreneurial activity. Entrepreneurs tend to delay investments, avoid market entry, or reduce expansion during such periods due to concerns about institutional unpredictability, access to finance, and potential disruptions in business operations. However, this negative relationship remains understudied because most empirical research has focused either on macroeconomic outcomes of elections or on entrepreneurship in isolation (see Borgholthaus et al., 2025; Brieger et al., 2024; Crawford et al., 2024; Hong et al., 2024; Lucas, 2024), without considering the interaction between the two. Moreover, data limitations, informal sector dominance, and variation in electoral processes across African countries may have also made it difficult to systematically investigate this dynamic, despite its significant policy implications.

While a substantial body of literature has explored the impact of elections on macroeconomic outcomes, including growth, investment, and institutional quality (Aisen & Veiga, 2013; Julio & Yook, 2012), fewer studies have examined whether elections influence financial development specifically. Elections often bring about political uncertainty, regulatory shifts, and risk aversion, which may disrupt financial markets and slow down financial intermediation (Bunkanwanicha et al., 2013). At the same time, some studies suggest that election periods can also stimulate economic engagement, increase public spending, and promote temporary policy responsiveness that benefits certain sectors of the economy (Shi & Svensson, 2006).

Parallel to this, the finance–entrepreneurship literature has established that entrepreneurship contributes to financial development by increasing demand for sophisticated financial products, enhancing credit allocation, and promoting market innovation (Fuentelsaz et al., 2015; Kim et al., 2018). The type of entrepreneurship—opportunity-driven versus necessity-driven, also matters, with the former exerting a more significant developmental impact on the financial sector (Zhao & Wibowo, 2021).

However, a gap remains in understanding how entrepreneurial activity may act as a mediating channel in the election–finance nexus, particularly in African economies where political cycles are pronounced and entrepreneurial ecosystems are emerging. Existing studies tend to analyze the impact of elections and entrepreneurship on financial development in isolation, without considering the interactive dynamics. This study addresses this gap by proposing that entrepreneurship mediates the effect of elections on financial development, such that increased entrepreneurial activity during elections may counterbalance the negative effects of political uncertainty and instead stimulate financial system deepening through increased credit demand, innovation, and formalization of business activities.

This mediating role is particularly relevant in Africa, where election cycles often mobilize youth, civil society, and the informal sector, creating an environment ripe for entrepreneurial responses. Therefore, integrating entrepreneurship into the election–finance relationship offers a more nuanced understanding of how political and economic institutions interact and provides a conceptual foundation for exploring policy strategies that promote inclusive financial development during electoral transitions. For this reason, the current study analyses the mediating effect of entrepreneurship on the election-finance nexus by first testing whether elections affect entrepreneurship. Previous studies discussed above reinforce that election-related uncertainty and instability have clear adverse effects on entrepreneurship, particularly by exacerbating financial constraints and undermining business confidence. Thus, election periods often negatively impact entrepreneurship by creating political uncertainty, increasing financing constraints, disrupting government support, and reducing market confidence. However, empirical studies in the African context remain unexplored. Thus, the study formulates the following hypothesis:

H_1: *There is a negative relationship between elections and entrepreneurship in Africa*

From the perspective of financial development, existing literature consistently highlights its vital role in facilitating entrepreneurship, which in turn contributes to broader economic growth (Levine, 1997). Financial systems provide essential services such as mobilizing savings, extending credit, and reducing information and transaction costs, services that are particularly important for entrepreneurs seeking capital to start or scale their ventures (Levine, 1997; Makki & Somwaru, 2004). Financial intermediaries like banks play a key role in allocating resources efficiently and in managing investment risks, thereby fostering a favorable environment for entrepreneurial activities (Lee, 1996; Shleifer & Vishny, 1997). While financial development has traditionally been viewed as a driver of entrepreneurship, emerging evidence points to a reverse causal relationship; thus, entrepreneurship can also promote financial development.

The relationship between entrepreneurship and financial development is theoretically supported by the Schumpeterian growth theory, which posits that entrepreneurial innovation drives economic and financial system evolution (see Aghion & Howitt, 1992; Schumpeter, 1934). Additionally, financial intermediation theory suggests that as entrepreneurship expands, it increases the demand for and efficiency of financial services, thereby stimulating financial sector development (Greenwood & Jovanovic, 1990; Levine, 1997). Entrepreneurial activity helps circulate financial assets across different sectors of the economy, thereby stimulating innovation and increasing demand for diverse financial products and services (Abubakar, 2015; Arcand et al., 2015; Corcoran & Gillanders, 2015; Patrick, 1966).

Furthermore, as entrepreneurs attract investment and generate capital inflows, they expand the financial base and contribute to the growth and depth of financial institutions (Majeed et al., 2021; Tran & Huynh, 2022). The level of financial development is often assessed through indicators such as financial depth, access, efficiency, and stability. Higher entrepreneurial activity contributes to each of these dimensions by creating a dynamic demand for credit, fostering financial innovation, and enhancing the inclusiveness of financial systems. However, while the concept of entrepreneurship and financial development has been widely studied in general and in several developing regions, the African context remains underexplored in empirical terms.

Against this backdrop, the present study aims to fill this gap by empirically testing the following hypothesis:

H_2: *There is a positive relationship between entrepreneurship and financial development in Africa*

Empirical evidence reinforces the theoretical claim that elections can influence both the entrepreneurial environment and the functioning of financial markets (Aghion et al., 2009; Brieger et al., 2024). For instance, Brieger et al. (2024) highlight the complex relationship between democracy and entrepreneurship, noting that while democratic systems can foster entrepreneurial activity, they can also constrain it. The institutional theory of entrepreneurship supports this view, emphasizing that political and economic institutions shape the incentives and constraints facing entrepreneurs (Brieger et al., 2024). The study builds on this by isolating elections as a specific democratic event that disrupts financial systems through the entrepreneurship channel, particularly in politically fragile African settings. Using a real options theory approach, Lucas (2024) demonstrates how political uncertainty around regime changes affects the

timing of entrepreneurial action. The current study extends this insight, showing that such uncertainty not only delays entrepreneurship but significantly suppresses it, thereby weakening financial development in contexts with fragile institutions. Borgholthaus et al. (2025) explore how political party platforms shape entrepreneurial trajectories. Although our study does not directly analyze party ideologies, it aligns with this broader narrative by showing that elections influence the entrepreneurial climate and financial development. This suggests that shifting or unclear policy platforms can erode business confidence and hinder capital mobilization.

Institutional theory emphasizes the role of formal rules and enforcement mechanisms in shaping economic behavior. In countries with strong institutions and credible electoral processes, elections can lead to policy continuity, improved governance, and increased trust in financial systems. Entrepreneurs are more likely to engage with formal finance during such periods, and financial institutions may respond with increased lending and financial product innovation. This results in a stronger positive effect of entrepreneurship on financial development. In contrast, in countries with weak institutions, elections can lead to rent-seeking, corruption, or disruptions in policy enforcement. Entrepreneurs may shift toward informal financing or politically connected ventures, which do not contribute to broad-based financial deepening. In this case, elections weaken the entrepreneurship–finance relationship.

The importance of institutional mechanisms to support entrepreneurship during elections is further emphasized by Crawford et al. (2024), who highlight the role of state-backed financial systems for SMEs. The authors reveal that the absence or instability of such support during elections contributes to a slowdown in both entrepreneurship and financial development, indicating a critical policy gap. Similarly, Hong et al. (2024) discuss how policy entrepreneurship can elevate local innovations to national reforms. The African research resonates with this idea by advocating for institutional continuity and proactive policy design to insulate entrepreneurship and financial systems from the destabilizing effects of electoral cycles. Muldoon et al. (2024) critique the failures of state-led entrepreneurial initiatives in the absence of strong institutional frameworks. Thus, even where pro-entrepreneurial policies exist, they are unlikely to succeed during election cycles without the structural and institutional support required to maintain momentum. In essence, the effect of entrepreneurship on financial development is conditional on the electoral environment. Where elections foster stability, transparency, and supportive policies, they amplify the financial benefits of entrepreneurship. Where they introduce instability and uncertainty, they weaken or even reverse this effect. The moderating role of elections is thus deeply rooted in political theories that link institutions, policy behavior, and economic outcomes.

Despite the growing body of research, little empirical work has directly examined the moderating effect of elections on the entrepreneurship–financial development nexus, particularly in the African context. Most studies have explored these variables in isolation or binary relationships. Yet, understanding how electoral cycles interact with financial and entrepreneurial systems is essential for crafting policies that sustain growth and innovation across political transitions.

Therefore, the current study contributes to the literature by empirically testing the following hypothesis:

H_3: *Election moderates the positive relationship between entrepreneurship and financial development in Africa*

3. Data and methods

The study examines the moderating effect of elections on the relationship between entrepreneurship and financial development. Before that, it shows the mediating effect of entrepreneurship on the election-finance nexus. We employ a panel dataset of 42 African countries over the period 2004–2022, and data were collected based on the availability of consistent representation of data for the variables of interest. This timeframe captures nearly two decades of economic, political, and financial transformations across African economies. It includes multiple election cycles, the expansion of entrepreneurial ecosystems, and the increased adoption of financial and digital innovations, which are central to understanding the evolving relationship between entrepreneurship and financial development. Studying this period allows the analysis to capture both short- and long-term trends, account for structural reforms, and observe the influence of political dynamics such as elections on economic outcomes.

The data for the study were obtained from the World Bank's World Development Indicators (WDI) database and other sources, including the IMF database. This source was selected for its comprehensive, standardized, and internationally comparable data across a wide range of economic and institutional variables. The panel structure, covering 42 African countries over 19 years, enhances the robustness of the econometric analysis and supports the use of advanced estimation techniques like the System GMM, which is well-suited for dynamic panel data with potential endogeneity issues.

3.1. Model specification and measurement

To analyse the mediating effect of entrepreneurship on the election-finance nexus, we first look at the independent effects of entrepreneurship and elections on financial development. Then, we show the effect of elections on entrepreneurship. Following previous studies by Tran and Huynh (2022), Dutta and Meierrieks (2021), there is a linear relationship between entrepreneurship and financial development. To capture the simultaneity that may exist between the variables, we employ the dynamic Systemic GMM estimation, which is specified as:

$$\begin{aligned} Financial\ development\ index_{jt} &= \alpha_0 + \alpha_1 Financial\ development\ index_{jt-1} + \alpha_2 Entrepreneurship_{jt} + \alpha_3 Elections_{jt} \\ &+ \sum_{l=1}^{N} \lambda_l C_{jt} + \sigma_j + \mu_t + \varepsilon_{jt} \end{aligned} \tag{1}$$

In estimating the effect of the election on entrepreneurship, we follow the methodology of Beland and Unel (2019). We present a model that specifies the linear relationship between election and entrepreneurship while controlling for a number of factors. This is expressed using the dynamic System Generalized Method of Moments (GMM):

$$Entrepreneurship_{jt} = \beta_0 + \beta_1 Entrepreneurship_{jt-1} + \beta_2 Election_{jt} + \sum_{l=1}^{N} \beta_l X_{jt} + \sigma_t + \mu_j + \gamma_{jt} \tag{2}$$

'where subscript j denotes cross-sectional dimension (country specifics), j = 1, …, M; t denotes the time series dimension (time), t = 1, …, T; β_0 is the constant term in Equation (1); β_1 is the coefficient of the lag of the dependent variable (entrepreneurship); β_2 represents the coefficient of elections; $\beta_l : l = 3,\ldots,$ N, represent the regression coefficient parameters for vector X to be estimated. X is a vector of control variables that explains the model. μ_j is the country fixed effect, σ_t is the time fixed effect; and γ_{jt} is idiosyncratic error term, which controls for unit-specific residual in the model for the *j*th *country* at *period t*.'

To capture possible unobserved heterogeneity and to analyze the moderating effect of elections on the entrepreneurship-finance nexus, we specify the following equation by introducing the interaction terms:

$$\begin{aligned} Financial\ development\ index_{jt} &= \alpha_0 + \alpha_1 Financial\ development\ index_{jt-1} + \alpha_2 Entrepreneurship_{jt} + \alpha_3 Elections_{jt} \\ &+ \alpha_4 [Entrepreneurship_{jt} * Elections_{jt}] + \sum_{l=1}^{N} \lambda_l C_{jt} + \sigma_j + \mu_t + \varepsilon_{jt} \end{aligned} \tag{3}$$

where subscript j denotes cross-sectional dimension (country specifics), $j = 1$, …, M; t denotes the time series dimension (time), t = 1, …, T; α_0 is the constant term in Equations (1) and (2); α_1 represents the coefficient of the lag of the dependent variable (i.e. financial development) in the equations; α_2 represents the coefficient of entrepreneurship; α_3 represents the coefficient of elections in the equations; and α_4 (Equation (3)) represents the coefficient of the interaction term between entrepreneurship and elections; $\lambda_l : l = 1,\ldots,$ N, represent the regression coefficient parameters for vector C to be estimated. C is a vector of control variables that explain the two equations. These include inflation (consumer price index), trade openness (exports plus imports as a percentage of GDP), human development index (HDI), gross domestic savings, population growth, industrial employment, and institutions (calculated as the sum of six indicators: political stability, regulatory quality, voice and accountability, rule of law, government effectiveness, and control of corruption). The World Bank's World Development Indicators provided

the data. σ_j is the country fixed effect; and μ_t is the time fixed effect; and ε_{jt} is an idiosyncratic error term, which controls for unit-specific residual in the model in the *j^{th} country* at *period t*.'

In Equation (3), to properly interpret the interaction terms, we estimate the effect of a change in entrepreneurship on financial development using the marginal effect, which is expressed as:

$$\text{MarginalEffect} = \frac{\partial Financial\,development}{\partial Entrepreneurship_{i,t}} = \alpha_2 + \alpha_4 Election_{jt} \tag{4}$$

3.1.1. Effect of entrepreneurship and election on financial development

In Equations (1) and (3), we employ financial development as the dependent variable.

3.1.1.1. Financial development. The study employs the financial sector development index. Data was obtained from the IMF's financial development database. This includes nine indices that provide an overview of the depth, accessibility, and efficiency of financial markets and institutions. An overall financial development index, which varies from 0 (low financial development) to 1 (high financial development), is created by adding together these indices. This measure has been used in the study by Dutta and Meierrieks (2021), and Cihak et al. (2012).

In Equation (1), the study looks at the independent impact of entrepreneurship and election on financial development. In Equation (2), we expect entrepreneurship and financial development to be positively related. The expected positive relationship between entrepreneurship and financial development is in line with previous studies by Tran and Huynh (2022), who found that entrepreneurship development provides investment capital (asset accumulation) to improve intermediary credit expansion through the financial sector, leading to further development in the financial sector.

The nexus between election and financial development is expected to have an interesting result. Based on our argument earlier in the literature, we anticipate that the election will have a negative impact on financial development. A negative effect suggests that an election may come with political instability and could impede the financial development of a country, which is in line with Roe and Siegel (2011). This expectation may contradict previous studies by Fungáčová et al. (2020), who show a positive relationship.

3.1.2. Effect of election on entrepreneurship

We argue that entrepreneurship mediates the relationship between election and financial development. To confirm this, we estimate the effect of the election on entrepreneurship (see equation 2). The dependent variable in the equation is entrepreneurship.

Entrepreneurship is defined as the 'creation of new businesses by a stable collection of individuals, households, entrepreneurs, and micro, small, and medium-sized enterprises who coordinate their efforts to generate new value-added economic activity' (Dau & Cuervo-Cazurra, 2014). The global ease of doing business was employed for this study as a proxy for entrepreneurship. The indicator was taken from the combination of World Bank Entrepreneurship Survey's and the Global Entrepreneurship Monitor's databases (GEM, 2015), as were used in the studies of Van der Waldt and Fourie (2022), Ajide and Ojeyinka (2022), and Yushi et al. (2020). The ease of doing business is measured based on the methodology in the DB17-20 studies of the World Bank. The values of the ease of doing business indicator range from 0 (worst regulatory performance) to 100 (best regulatory performance), where higher values indicate a greater level of ease of doing business, hence entrepreneurship.

3.1.2.1. Election. In Equation (2), entrepreneurship is the outcome variable, and election is the variable of interest. Given that politicians use the resources of the government to boost their chances of winning elections, we introduce election events into our model to explain how they influence entrepreneurship. We construct electoral cycle variables by employing dummies as applied in the literature (see Agbloyor, 2019; Koetter & Popov, 2021). The variables were primarily obtained by searching the internet for the dates of elections. Making use of the fake election identification, a value of 1 represents an election year and 0 otherwise. Based on this, we anticipate that the election will undermine entrepreneurship, leading

to a negative relationship. This implies that the ease of doing business in a country declines during elections. This agrees with Beland and Unel (2019) that entrepreneurial activities are impeded by elections, leading to a negative effect of elections on entrepreneurship, as confirmed by Chinchwadkar (2020).

3.1.3. Interaction effect

In Equation (3), we examine the moderating effects of election on the relationship between entrepreneurship and financial development, where the relationships are captured by the interaction terms and interpreted using the marginal effects. We argue that the influence of entrepreneurship on financial development is conditioned on elections. Considering this, we interact with the election and entrepreneurship variables to capture the heterogeneity and joint effect in the model. In line with Brambor et al. (2006), we compute the marginal impacts of entrepreneurship to interpret our findings. We compute the marginal effects of entrepreneurship, as indicated by Equation (4), to interpret our results. We anticipate that elections will moderate the relationship between entrepreneurship and financial development.

3.2. Estimation technique

The validity, reliability, and efficiency of the model are tested using a variety of methodologies in this study. The System Generalized Method of Moments (SGMM) Two-Step estimator, which has robust standard errors, forward orthogonal deviations, and small sample size adjustments, is used in this study. By doing this, finite sample bias is decreased, and efficiency is increased (see Arellano & Bover, 1995; Blundell & Bond, 1998; Wooldridge, 2001). The unobserved heterogeneity between nations and endogeneity resulting from bi-causality and inaccurate measurements are both resolved by the GMM. System GMM is appropriate for this study because it effectively handles endogeneity, especially in dynamic panel models that include lagged dependent variables. It is well-suited for panels with a short period and many cross-sectional units, like the 42 African countries over 19 years in this dataset. Unlike fixed effects or traditional IV methods, system GMM uses internal instruments to control for omitted variable bias, measurement error, and reverse causality, leading to more reliable and efficient estimates. Moreover, entrepreneurship, financial development, and political factors such as elections are potentially endogenous; entrepreneurial activity and financial development may influence each other simultaneously, and political events may both affect and be influenced by economic outcomes. System GMM addresses this by using internal instruments derived from the lagged levels and differences of the variables, reducing the risk of bias that arises from omitted variables or measurement errors (Arellano & Bond, 1991; Blundell & Bond, 1998). Furthermore, endogeneity may occur given the nature of our independent variables; this is especially true for the endogenous variables, financial development, and entrepreneurship.

To address these challenges, the study uses the system generalized method of moments (GMM) technique developed by Arellano and Bond (1991) and Blundell and Bond (1998). In addition to eliminating the endogeneity issue in panel estimation, the GMM technique produces estimates that are consistent with autocorrelation and heteroskedasticity (Lu & Wooldridge, 2020; Roodman, 2009). Additionally, as the sample size is greater than the sample period, the GMM technique is appropriate for this investigation. First-order serial correlation (AR (1)) is present while second-order serial correlation (AR (2)) is absent, according to the dynamic system GMM results. Moreover, the estimation tools are validated by Hansen J-statistics. The results, thus, pass diagnostic testing (see estimations in Tables A3–A5).

4. Empirical results and discussions

The variables used in the study are shown in Table A1 with their descriptive statistics. In Table A1, the sample's average ease of doing business is 59.23, with a range of 26.9 to 89.5, while the mean financial development was 0.208, ranging between 0 and 1. This variation indicates significant disparities in the business environment across countries, suggesting that while some economies provide relatively supportive conditions for entrepreneurship, others pose considerable barriers. On one hand, a higher ease of doing business score generally reflects fewer regulatory hurdles, better legal frameworks, and more

accessible infrastructure, which are crucial for stimulating entrepreneurial activity. On the other hand, the mean financial development index, which stands at 0.208 on a scale from 0 to 1, indicates a relatively low level of financial sector maturity across the sample. The lower bound of 0 further highlights the presence of economies with extremely underdeveloped financial systems, where entrepreneurs may face limited access to credit, poor financial services, and inadequate risk management tools.

The electoral mean was 18.5 percent. This suggests that approximately one-fifth of the sample's years had elections. Thus, a country in our sample has elections every five years on average. Regarding the controls, the average inflation rate was 5.55, the average trade openness was 93.72, the average human development index was 0.65, the average gross national savings was 21.99, the average population growth was 1.46, the average percentage of industry employment to total employment was 13.24 percent, and the average mean for institutions was −0.045.

The descriptive statistics show no evidence of outliers. Additionally, Pearson's correlation coefficients in all cases were less than 0.7 (see Wichers, 1975; York, 2012) with the mean VIF of 1.30, less than the threshold of 10, and thus, the absence of multicollinearity (see Table A2). Hence, all the variables are employed and fit to be included in the models.

4.1. Elections, entrepreneurship, and financial development

4.1.1. Independent effect of entrepreneurship and election on financial development

Table A3 shows that financial development is positively and significantly impacted by our measure of entrepreneurship, which is the ease of doing business (see models 1–7). The regression results are significant and consistent. Accordingly, a rise in entrepreneurship corresponds to a rise in financial development. The positive entrepreneurship–finance nexus aligns with Schumpeterian growth theory (Schumpeter, 1934), where entrepreneurial innovation drives economic and financial system transformation. This relationship is further underpinned by financial intermediation theory (Greenwood & Jovanovic, 1990; Levine, 1997), which suggests that entrepreneurial activity stimulates demand for financial services, deepening financial markets. In addition, the outcome is consistent with the findings by Tran and Huynh (2022), Majeed et al. (2021), and Agbloyor et al. (2012). Our findings demonstrate that entrepreneurship is a blessing to financial development and that economies that are more open to entrepreneurial activities tend to see an improvement in the financial sector's ability to provide financial intermediation, which leads to more robust financial development. Theoretically, it is widely accepted among economists that a favorable business environment can cause entrepreneurs and investors to shift their focus to investing in productive ventures, and they do so via the financial sector, which subsequently can accelerate the development of the financial industry (Kim et al., 2016; Bjorvatn et al., 2012). Alternatively, if a nation's market economy is open to trade and entrepreneurship, entrepreneurs will be able to raise productive capital and open bank accounts with financial institutions in that nation, which will increase the financial system's capacity for financial intermediation (savings, lending, investment, etc.) and eventually spur greater development in the financial sector. The allocation of resources through the financial sector is thus likely to be stimulated by an increase in the level of entrepreneurship, which in turn spurs financial development.

In Table A3, our measure of election enters the regression with a negative and significant effect on financial development (see models 1–7). This suggests that elections independently impede the development of the financial sector. We control for institutions and still observe that elections adversely affect financial development across the models. This is because key institutions needed for basic financial development would function poorly in a severely unstable polity. This supports the argument of Ozili (2023), who reveals that banks in developed countries have higher loan loss provisioning during election years. This is because political risk exposures are likely to be higher in election years, which in turn impedes financial intermediation and the development of the financial sector.

During election years, the political landscape often becomes uncertain, governments may change, regulations might shift, and economic policies can become unpredictable. This heightened political risk makes banks more cautious, as they fear instability could lead to increased default rates. As a result, banks reduce their lending activities or make credit more expensive and harder to access. This behavior undermines financial intermediation, which is the process by which banks and financial institutions channel funds from savers to borrowers, particularly businesses and entrepreneurs. With credit access constrained, financial development

slows down because fewer financial transactions occur, and the financial system becomes less efficient and inclusive. Thus, the work of Ozili (2023) supports the idea that elections introduce political risks that negatively affect the financial sector, aligning with the study's findings on whether elections dampen financial development through disruptions in lending and investment activities.

4.1.2. Election-entrepreneurship nexus

It is shown in Table A3 that election has a negative effect on financial development. This effect is argued to be influenced by entrepreneurship as a channel through which elections affect financial development. Next, we show the effect of elections on entrepreneurship to affirm the mediating effect of entrepreneurship on the election-finance nexus. In Table A4, it can be deduced that the impact of elections on entrepreneurship is negative and significant, but the level of impact varies across different institutional frameworks (see models 8–14). This means that elections play a significant role in countries that open their economies to businesses. Our result suggests that election limits the ease of doing business while controlling for different components of institutions. This implies that entrepreneurs who develop their capacity to fuel business activities within an economy are restricted during periods of election. Thus, political processes affect the real economy. This aligns with the political business cycle theory (Nordhaus, 1975; Rogoff, 1990), which suggests that elections often generate policy uncertainty, leading to hesitation among economic agents. In this context, the uncertainty surrounding electoral outcomes and potential policy shifts can discourage entrepreneurial activity, as entrepreneurs delay investment decisions, expansion plans, or new venture creation until the post-election environment stabilizes. Our findings also resonate with Chinchwadkar (2020), who observed that political uncertainty intensifies during election periods, significantly reducing private investment and entrepreneurial inflows, particularly in contexts where institutional credibility is weak. These dynamics help explain the observed negative impact of elections on entrepreneurship across African economies. If national elections affect private sector investments, then it is more likely to affect entrepreneurial activities in the economy. Therefore, political and institutional uncertainties have a negative effect on the elections of entrepreneurship.

The control variables have their expected results as shown in Table A4.

4.1.3. Interactions: moderating effects of elections on the relationship between entrepreneurship and financial development

We have shown that entrepreneurship positively and unconditionally affects financial development. In this section, we argue that determining the outcome of financial development cannot be done solely by looking at average levels of entrepreneurship. Thus, we present the interaction effects of entrepreneurship and elections on financial development as shown in Table A5. Both the negative and significant coefficients of election and the positive and significant coefficients of ease of doing business have an unconditional effect that was discovered earlier (see Table A3, models 1–7). However, the coefficients of the interaction factors between the election and the ease of doing business are positive and significant in all models (see models 15–21). As a result, entrepreneurship has a significant and positive conditional effect.

In line with Brambor et al. (2006), the marginal impacts of the interactions need to be calculated to offer a valid economic interpretation. For example, utilizing model 15, when elections take a value of 1, the marginal effect of the ease of doing business on financial development based on the coefficients is 0.4532[0.4520 + (0.00117 * elections)]. Thus, the marginal effect (0.4532) is more positive than the coefficient (0.4520) of the main variable (ease of doing business). Similarly, for all the models 15–21, the marginal effects are more positive when controlling for specific indicators of institutions. This suggests that election enhances the positive impact of entrepreneurship on financial development. This is because elections serve as a risk-enhancing signal for entrepreneurs. This means that entrepreneurs might become more politically engaged during elections, advocating for pro-business reforms, better regulatory frameworks, and improved financial access. Their increased visibility and involvement can lead to institutional changes that improve financial systems (Brieger et al., 2024). For that reason, entrepreneurs might continue to direct their efforts toward the economic sectors that have a bearing on the financial industry.

Interestingly, the study's finding that elections amplify the positive effect of entrepreneurship on financial development, despite their overall disruptive nature, may reflect intensified financial activity among

politically connected or resilient entrepreneurs, as financial systems mobilize resources more strategically during high-stakes periods. This nuance suggests that while elections may suppress broad-based entrepreneurship, those ventures that persist or emerge during these periods might have a stronger institutional push or attract more attention, thereby deepening the financial system. During elections, governments often roll out pro-business policies, financial incentives, or stimulus programs targeting small and medium enterprises (SMEs) to gain voter support. This can create a more favorable environment for entrepreneurs to thrive and, in turn, stimulate financial markets and institutions (Crawford et al., 2024).

Theoretical foundations such as political opportunity structure and institutional theory suggest that election periods heighten state attention to entrepreneurs, improve access to finance, and stimulate demand for financial services, thereby strengthening the entrepreneurship–finance link. In addition, on one hand, election cycles can bring new political actors or reform-minded candidates who champion entrepreneurship and financial inclusion. These actors might push financial innovation, microfinance expansion, or startup funding to demonstrate commitment to economic development (Hong et al., 2024). On the other hand, financial institutions may see election periods as a window of opportunity to expand their market base. Banks and fintechs might offer more aggressive lending or financial services to entrepreneurs during this time to capitalize on election-driven economic momentum (Borgholthaus et al., 2025).

In general, the positive impact of entrepreneurship on financial development is amplified around elections. Thus, entrepreneurship improves financial development to a greater extent during elections. The implication is that elections prove more important in communicating issues about the democratic and political environment to entrepreneurs, to increase their risk appetite or incentives for allocating funds through the financial sector.

Regarding the control variables, financial development is positively impacted by inflation. Trade openness negatively affects financial development. This suggests that trade openness has not directly contributed to financial development in Africa. This is because an open economy does not channel the benefits and resources from exports through the financial sector. The human development index positively affects financial development. This implies that financial development is enhanced by policies that support people's income, health, and education within an economy. Financial development is positively impacted by gross national savings. This implies that nations with higher rates of saving have generally better financial systems. Financial development has a negative relationship with institutions. The specific indicators of institutions were found to negatively affect financial development.

5. Conclusion and policy implications

This study examines the effect of the moderating effects of elections on the relationship between entrepreneurship and financial development using the dynamic system GMM for a dataset of **42** African economies over the period 2004–2022. First, the study examines the independent effects of entrepreneurship and elections on financial development. Second, it examines the mediating effect of entrepreneurship on the election-finance nexus by regressing elections on entrepreneurship. It shows that entrepreneurship has a positive effect on financial development. This implies that as entrepreneurship grows, so does the financial sector's ability to allocate resources, which in turn boosts financial development. It reveals that elections dampen the levels of financial development, thus, a negative election-finance nexus. The evidence suggests that elections create an environment of instability that hinders financial development, leading to a negative correlation between the two. The research proves that elections have a detrimental effect on entrepreneurship. This is because, during elections, political instability or uncertainty can make the environment riskier for entrepreneurs, which slows down entrepreneurial activity, and this, in turn, can impact financial development. This means that elections reduce entrepreneurship and, hence, reduce financial development.

Lastly, it shows whether the election has a moderating impact on the entrepreneurship-financial development nexus. Remarkably, our findings indicate a positive and substantial relationship between entrepreneurship and financial development. Moreover, we offer proof to support the claim that the beneficial impact of entrepreneurship on financial development is amplified in election years. The amplification of entrepreneurship's impact on financial development during election years reflects a convergence of political incentives, economic momentum, and strategic behavior by both the public and private sectors. In this context, elections serve not as a source of instability but as a catalyst that elevates the role of entrepreneurship in driving

financial system growth. The paper's evidence points to a politically responsive entrepreneurial ecosystem where elections become accelerators, not disruptors, of financial development through entrepreneurship.

The implication from the findings is that entrepreneurship does matter for financial development, and this effect is enhanced when countries enter elections. This finding is a novel contribution that highlights how electoral cycles, though disruptive, can serve as catalysts for targeted financial mobilization and entrepreneurial-financial synergies. Thus, political institutions, policymakers, and governments should make efforts to strengthen the political and democratic governance system, especially during elections, to help them realize positive benefits from entrepreneurship, helping them to overcome the unexpected electoral events that affect the development of the financial system. Finally, policymakers can harness the political energy, entrepreneurial activities, and public engagement typical of elections to drive deeper and more inclusive financial development.

This study has several limitations. First, it focuses exclusively on African economies, which may limit the generalizability of the findings to other regions. Additionally, due to the empirical methodology employed in the study, interpreting the estimates, specifically the interaction coefficients, as causal effects is not appropriate. Further, our study does not provide alternative measures of entrepreneurship and financial development.

5.1. Contributions and future studies

The novel contribution of this study lies in its exploration of whether elections moderate the relationship between entrepreneurship and financial development within the African context, a topic that has received limited empirical attention. Unlike prior studies that examine these variables in isolation, this research uniquely demonstrates that while elections typically suppress entrepreneurship and financial development individually, they can also amplify the positive impact of entrepreneurship on financial development during election years. This paradoxical finding introduces a new perspective on the role of political cycles, suggesting that elections, when managed well, can act as catalysts rather than disruptors of financial sector growth by energizing entrepreneurial ecosystems. Future studies should consider an examination of how financial inclusion promotes the impact of entrepreneurship on financial development during elections and the institutional framework. Further, a separate analysis of alternative measures of entrepreneurship and financial development could provide interesting results in this context. To determine how well this model fits other parts of the world, further research is needed to explore this study (including data extension).

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Authors contributions

CRediT: **Daniel Ofori-Sasu**: Conceptualization, Investigation, Writing – original draft, Writing – review & editing; **Prince Adjei**: Resources, Writing – review & editing; **Isaac Kyere**: Supervision, Writing – review & editing; **Mark Edem Kunawotor**: Resources, Supervision, Writing – review & editing.

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About the authors

Daniel Ofori-Sasu (Corresponding Author) is a financial economist and a Lecturer in the Department of Finance at the University of Ghana Business School. He holds a PhD and MPhil in Finance. His research interests span monetary policy, financial markets, capital flows, financial sector development, sustainability issues, entrepreneurship, development finance, and economics in emerging and developing economies.

Prince Adjei is a Lecturer at the Department of Economics, University of Ghana. He holds a PhD and MPhil degree in Economics. His research interests include macroeconomic policy, economic development, and capital mobility in Sub-Saharan Africa.

Isaac Kyere is an Assistant Lecturer at the Department of History, University of Ghana. He holds an MPhil in History, with research interests in economic history, institutional development, and the historical dimensions of financial systems in Africa.

Mark Edem Kunawotor is a Lecturer in the Department of Finance at the University of Professional Studies, Accra (UPSA). He holds a PhD and MPhil in Finance. His research focuses on public financial management, corporate finance, and financial policy analysis in developing economies.

ORCID

Daniel Ofori-Sasu http://orcid.org/0000-0001-8012-2478

Data availability statement

The datasets used and/or analyzed during the current study are available (with the corresponding author) upon reasonable request.

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Appendix A

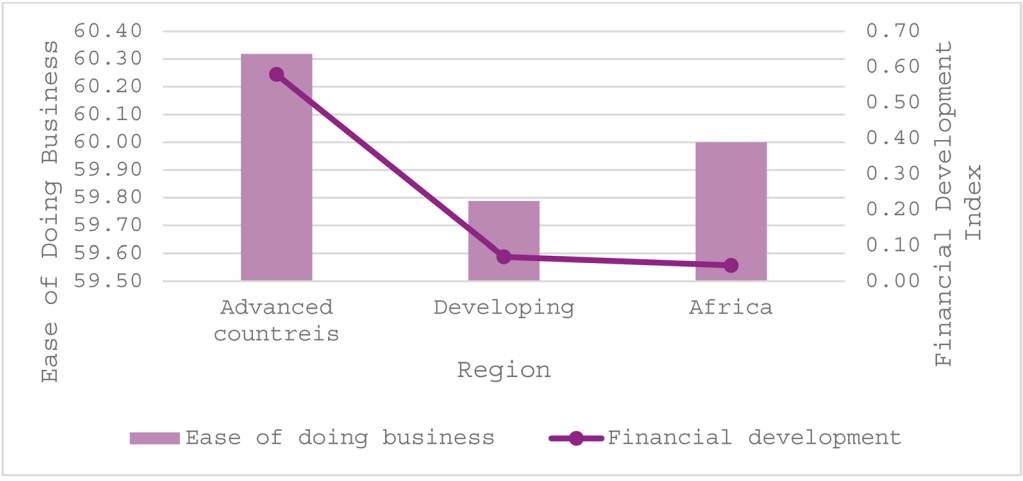

Figure A1. Entrepreneurship and financial development across the regions in electoral periods, 2004–2022 average.

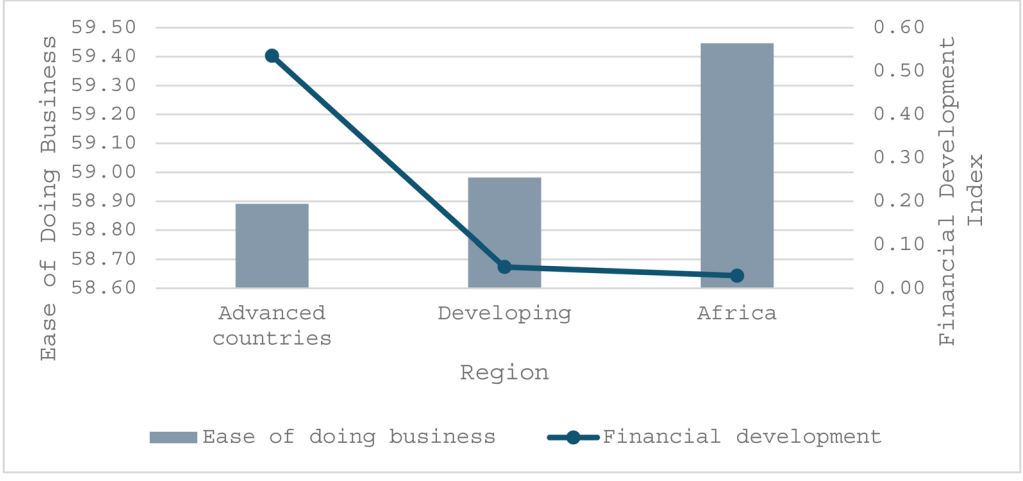

Figure A2. Entrepreneurship and financial development across the regions in non-electoral periods, 2004–2022 average. *Note:* The ease of doing business is measured based on the methodology in the DB17-20 studies of the World Bank. The values of the ease of doing business indicator range from 0 (worst regulatory performance) to 100 (best regulatory performance) – obtained from WDI; the financial development index, ranges from 0 (low financial development) to 1 (high financial development) – obtained from the IMF Financial Development Index Database.

Table A1. Descriptive statistics.

Variables	Observation	mean	std. Dev.	min	max
Financial development	784	0.208	0.406	0	1
Ease of doing business	730	59.235	10.13	26.9	89.5
Election	798	0.185	0.388	0	1
Inflation	798	5.553	11.509	−8.975	379.848
Trade openness	695	93.723	59.139	0.167	675.678
Human development index	798	0.68	0.161	0.266	0.951
Gross national savings	798	21.99	11.902	−23.101	120.552
Population growth	798	1.455	1.517	−3.107	16.332
Industry employment	601	13.238	5.313	1.704	40.37
Institution	798	−0.045	0.913	−2.449	1.96
Voice and accountability	798	−0.034	1.005	−2.313	1.801
Rule of law	798	−0.037	0.994	−2.606	2.1
Regulatory quality	798	−0.039	1	−2.645	2.261
Political stability and absence of violence	798	−0.031	0.996	−3.315	1.965
Government effectiveness	798	−0.039	0.998	−2.446	2.437
Control of corruption	798	−0.036	0.998	−1.869	2.47

Table A1 presents the descriptive statistics of the variables. All the variables are defined and described in Appendix B

Table A2. Pairwise correlations.

Variables	VIF	(1)	(2)	(3)	(5)	(6)	(8)	(10)	(11)	(13)	(14)
(1) Financial development		1.000									
(2) Ease of doing business	1.23	0.012	1.000								
		(0.603)									
(3) Election	1.03	0.030	−0.033	1.000							
		(0.103)	(0.145)								
(5) Inflation	1.06	0.133	0.014	0.012	1.000						
		(0.000)	(0.540)	(0.498)							
(6) Trade openness	1.13	−0.003	0.021	−0.027	−0.012	1.000					
		(0.880)	(0.399)	(0.188)	(0.564)						
(8) Human development index	1.18	−0.001	−0.014	0.003	−0.020	0.279	1.000				
		(0.954)	(0.580)	(0.884)	(0.345)	(0.000)					
(10) Gross national savings	1.12	0.070	−0.038	−0.014	−0.036	−0.002	0.014	1.000			
		(0.001)	(0.113)	(0.455)	(0.064)	(0.912)	(0.530)				
(11) Population growth	1.21	0.025	0.026	0.007	0.061	−0.056	−0.393	−0.030	1.000		
		(0.218)	(0.258)	(0.703)	(0.002)	(0.006)	(0.000)	(0.143)			
(13) Industry employment	2.50	−0.070	0.005	0.001	−0.083	−0.005	−0.036	0.084	0.011	1.000	
		(0.000)	(0.811)	(0.961)	(0.000)	(0.821)	(0.086)	(0.000)	(0.569)		
(14) Institution	1.25	0.000	−0.011	0.005	−0.023	0.322	0.770	0.024	−0.321	−0.012	1.000
		(0.982)	(0.629)	(0.806)	(0.248)	(0.000)	(0.000)	(0.263)	(0.000)	(0.554)	
Mean VIF	1.30										

Variables	(15)	(16)	(17)	(18)	(19)	(20)
(15) Voice and accountability	1.000					
(16) Rule of law	0.814	1.000				
	(0.000)					
(17) Regulatory quality	0.766	0.903	1.000			
	(0.000)	(0.000)				
(18) Political stability and absence of violence	0.667	0.765	0.622	1.000		
	(0.000)	(0.000)	(0.000)			
(19) Government effectiveness	0.739	0.931	0.932	0.673	1.000	
	(0.000)	(0.000)	(0.000)	(0.000)		
(20) Control of corruption	0.772	0.943	0.866	0.730	0.924	1.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	

Table A2 shows the pairwise correlation coefficients matrix of the variables. All the variables are defined and described in Appendix B.

Table A3. Independent effect of entrepreneurship and election on financial development.

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Financial development$_{t-1}$	0.935***	0.936***	0.935***	0.935***	0.936***	0.935***	0.935***
	(0.218)	(0.218)	(0.218)	(0.218)	(0.218)	(0.218)	(0.218)
Ease of doing business	0.612***	0.638***	0.578***	0.622***	0.626***	0.628***	0.591***
	(0.155)	(0.156)	(0.154)	(0.154)	(0.156)	(0.155)	(0.154)
Election	−0.00109***	−0.00107***	−0.00108***	−0.00110***	−0.00107***	−0.00110***	−0.00108***
	(0.000342)	(0.000341)	(0.000340)	(0.000342)	(0.000342)	(0.000342)	(0.000342)
Inflation rate	0.000266*	0.000208	0.000278*	0.000290	0.000235	0.000259	0.000302**
	(0.000153)	(0.000182)	(0.000165)	(0.000203)	(0.000180)	(0.000177)	(0.000133)
Trade openness	−0.000205*	−0.000266**	−0.000201*	−0.000212*	−0.000235*	−0.000208*	−0.000199
	(0.000121)	(0.000120)	(0.000121)	(0.000121)	(0.000124)	(0.000121)	(0.000122)
Human development index	0.243***	0.170***	0.255***	0.237***	0.134***	0.263***	0.224***
	(0.0657)	(0.0526)	(0.0627)	(0.0651)	(0.0512)	(0.0716)	(0.0601)
Gross national savings	0.00311***	0.00310***	0.00309***	0.00308***	0.00312***	0.00309***	0.00311***
	(0.000607)	(0.000607)	(0.000604)	(0.000608)	(0.000609)	(0.000608)	(0.000607)
Population growth	−0.00455	−0.00437	−0.00460	−0.00466	−0.00461	−0.00454	−0.00462
	(0.00346)	(0.00314)	(0.00345)	(0.00342)	(0.00349)	(0.00362)	(0.00357)
Industry employment	0.000519	0.000513	0.000527	0.000511	0.000498	0.000473	0.000458
	(0.000969)	(0.000964)	(0.000960)	(0.000969)	(0.000966)	(0.000969)	(0.000969)
Institution	−0.0315**						
	(0.0126)						
Voice and accountability		−0.0161*					
		(0.00944)					
Rule of law			−0.0320***				
			(0.0107)				
Regulatory quality				−0.0278**			
				(0.0115)			
Political stability and absence of violence					−0.00486		
					(0.00877)		
Government effectiveness						−0.0311**	
						(0.0124)	
Control of corruption							−0.0249**
							(0.00994)
Constant	−0.192***	−0.137**	−0.202***	−0.185***	−0.119**	−0.203***	−0.178***
	(0.0618)	(0.0546)	(0.0604)	(0.0609)	(0.0563)	(0.0642)	(0.0588)
Time Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	643	645	645	643	645	643	643
No. of groups	42	42	42	42	42	42	42
No. of instruments	24	24	24	24	24	24	24
AR (1)	−3.21***	−3.67***	−3.45***	−2.07***	−3.21***	−3.67***	−3.45***
AR (2)	0.917	0.926	0.202	0.298	0.917	0.926	0.202
Sargan Test (X^2)	29.03	50.53	90.24	23.08	29.03	50.53	40.24
Hansen Test (X^2)	32.04	33.81	30.71	35.25	32.04	33.81	30.71
F-stats-*p*-value	0	0	0	0	0	0	0

Table A4 shows the independent effect of entrepreneurship and Election on financial development using the Dynamic System GMM. All the variables are defined and described in Appendix B.
Standard errors in parentheses.
***$p < 0.01$.
**$p < 0.05$.
*$p < 0.1$.

Table A4. Relationship between election and entrepreneurship: Dynamic system GMM.

VARIABLES	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14
Ease of doing business$_{t-1}$	0.775***	0.575***	0.583***	0.335***	0.340***	0.256***	0.257***
	(0.0956)	(0.0964)	(0.0968)	(0.0953)	(0.0956)	(0.0947)	(0.0953)
Election	−0.275**	−0.284**	−0.160***	−0.256**	0.127***	−0.265**	−0.483**
	(0.111)	(0.122)	(0.0446)	(0.119)	(0.0412)	(0.114)	(0.190)
Inflation rate	−1.987***	−1.564***	−1.592***	−1.344***	−1.347***	−1.188***	−1.197***
	(0.272)	(0.241)	(0.242)	(0.236)	(0.236)	(0.236)	(0.235)
Trade openness	0.0261***	0.0287***	0.0285***	0.0284***	0.0283***	0.0283***	0.0282***
	(0.00137)	(0.00197)	(0.00196)	(0.00195)	(0.00195)	(0.00180)	(0.00180)
Human development index	0.00898***	0.0158***	0.0155***	0.0129***	0.0127***	0.0117***	0.0114***
	(0.00282)	(0.00344)	(0.00345)	(0.00342)	(0.00343)	(0.00324)	(0.00325)
Gross national savings	0.0755***	0.0846***	0.0845***	0.0772***	0.0789***	0.0664***	0.0687***
	(0.0183)	(0.0209)	(0.0210)	(0.0201)	(0.0201)	(0.0194)	(0.0194)

(*Continued*)

Table A4. Continued.

VARIABLES	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14
Population growth	−0.000182***	−0.000219***	−0.000223***	−0.000204***	−0.000208***	−0.000292***	−0.000295***
	(3.65e-05)	(4.52e-05)	(4.56e-05)	(4.50e-05)	(4.49e-05)	(5.33e-05)	(5.34e-05)
Industry employment	−0.00870***	−0.00807***	−0.00808***	−0.00795***	−0.00796***	−0.00816***	−0.00816***
	(0.000253)	(0.000360)	(0.000355)	(0.000358)	(0.000358)	(0.000336)	(0.000334)
	(0.0827)	(0.108)	(0.107)	(0.106)	(0.106)	(0.102)	(0.102)
Institution	0.0559***						
	(0.00736)						
Voice and accountability		−0.558***					
		(0.108)					
Rule of law			0.0525***				
			(0.00702)				
Regulatory quality				2.454***			
				(0.239)			
Political stability and absence of violence					−0.0141*		
					(0.00821)		
Government effectiveness						2.302***	
						(0.225)	
Control of corruption							−0.577*
							(0.304)
Constant	0.238	−0.505	−0.488	−0.860**	−0.899**	−0.667*	−0.697**
	(0.327)	(0.377)	(0.375)	(0.362)	(0.362)	(0.352)	(0.350)
Time Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	732	732	732	732	732	732	732
No. of groups	42	42	42	42	42	42	42
No. of instruments	24	24	24	24	24	24	24
AR (1)	−2.31***	−2.04***	−2.47***	−2.31***	−2.04***	−2.47***	−2.04***
AR (2)	1.79	1.90	−0.06	1.79	1.90	−0.06	1.90
Sargan Test (X^2)	7.012	7.002	7.021	7.012	7.002	7.021	7.002
Hansen Test (X^2)	32.32	30.84	30.79	32.32	30.84	30.79	30.84
F-stats(*p*-value)	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table A3 shows the relationship between Election and entrepreneurship using the Dynamic System GMM. All the variables are defined and described in Appendix B. Robust standard errors in parentheses

***$p < 0.01$.

**$p < 0.05$.

*$p < 0.1$.

Table A5. Interaction effects of entrepreneurship and elections on financial development.

VARIABLES	Model 15	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21
Financial development$_{t-1}$	1.106***	1.113***	1.104***	1.096***	1.107***	1.110***	1.102***
	(0.283)	(0.275)	(0.285)	(0.291)	(0.266)	(0.288)	(0.278)
Ease of doing business	0.4520**	0.4258***	0.4895***	0.4779***	0.620***	0.624***	0.648***
	(0.1354)	(0.1132)	(0.1288)	(0.1260)	(0.162)	(0.153)	(0.158)
Election	−0.00110**	−0.00110**	−0.00109**	−0.00109**	−0.00112**	−0.00110**	−0.00112**
	(0.000486)	(0.000486)	(0.000484)	(0.000486)	(0.000485)	(0.000486)	(0.000486)
Ease of doing business* Election	0.00117**	0.00120**	0.00117**	0.00114**	0.00118**	0.00116**	0.00117**
	(0.000553)	(0.000552)	(0.000549)	(0.000553)	(0.000552)	(0.000553)	(0.000554)
Inflation	0.000138	0.000125	0.000141	0.000143	0.000120	0.000142	0.000152
	(0.000239)	(0.000240)	(0.000236)	(0.000233)	(0.000244)	(0.000256)	(0.000240)
Trade openness	7.39e-05	7.92e-05	7.38e-05	6.95e-05	7.27e-05	7.43e-05	7.24e-05
	(6.60e-05)	(5.28e-05)	(6.57e-05)	(7.37e-05)	(7.99e-05)	(6.84e-05)	(6.71e-05)
Human development index	0.120*	0.0805	0.138**	0.145**	0.0619	0.140**	0.102*
	(0.0620)	(0.0496)	(0.0594)	(0.0602)	(0.0488)	(0.0673)	(0.0576)
Gross national savings	0.00110**	0.00110**	0.00109**	0.00109**	0.00112**	0.00110**	0.00112**
	(0.000486)	(0.000486)	(0.000484)	(0.000486)	(0.000485)	(0.000486)	(0.000486)
Population growth	−0.00402	−0.00376	−0.00410	−0.00420	−0.00372	−0.00399	−0.00429
	(0.00343)	(0.00309)	(0.00345)	(0.00327)	(0.00385)	(0.00376)	(0.00345)
Industry employment	−0.000403	−0.000379	−0.000415	−0.000399	−0.000398	−0.000408	−0.000416
	(0.000535)	(0.000517)	(0.000553)	(0.000515)	(0.000550)	(0.000556)	(0.000537)

(*Continued*)

Table A5. Continued.

VARIABLES	Model 15	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21
Institution	−0.0143						
	(0.0120)						
Voice and accountability		−0.00473					
		(0.00868)					
Rule of law			−0.0173*				
			(0.0102)				
Regulatory quality				−0.0194*			
				(0.0106)			
Political stability and absence of violence					0.00143		
					(0.00862)		
Government effectiveness						−0.0165	
						(0.0117)	
Control of corruption							−0.00861
							(0.00956)
Constant	0.0557*	0.0528	0.0564*	0.0574*	0.0527	0.0570	0.0577*
	(0.0330)	(0.0325)	(0.0328)	(0.0317)	(0.0377)	(0.0389)	(0.0330)
Time Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	591	593	593	591	593	591	591
Number of ccode	85	85	85	85	85	85	85
No. of groups	42	42	42	42	42	42	42
No. of instruments	24	24	24	24	24	24	24
AR (1)	−2.54***	−3.02***	−2.23***	−2.54***	−3.02***	−2.23***	−3.02***
AR (2)	0.662	0.775	0.694	0.662	0.775	0.694	0.775
Sargan Test	50.31	29.03	90.17	50.31	29.03	90.17	29.03
Hansen Test	49.11	30.58	28.02	49.11	30.58	28.02	30.58
F-stats-*p*-value	0	0	0	0	0	0	0
Margal Effect	**0.4532**	**0.4270**	**0.4907**	**0.4790**	**0.6212**	**0.6252**	**0.6492**

Table A5 shows the interaction effects of entrepreneurship and Elections on financial development using the Dynamic System GMM. All the variables are defined and described in Appendix B. Standard errors in parentheses; ***$p<0.01$, **$p<0.05$, *$p<0.1$

Appendix B

Data on financial development was obtained from the IMF. This contains nine indices that summarize how developed financial institutions and financial markets are in terms of their depth, access and efficiency. These indices are aggregated into an overall index of financial development that ranges between 0 (low financial development) and 1 (high financial development); **Ease of doing business** (computed based on the methodology in the DB17-20 studies for topics that underwent methodology updates, which ranges from 0 to 100, where 0 represents the worst regulatory performance of ease of doing business and 100 the best regulatory performance); **Election** (Election event) is constructed as a dummy, with a value of 1 in Election years and 0 otherwise; **inflation** (consumer price index), **trade openness** (exports plus imports as a percentage of GDP), **Interest rate** (lending interest rate adjusted for inflation); **Human Development Index** ranges between 1 and 0 and computed as a function of education, health and income of an economic; **Gross national savings** is measured as gross national income less total consumption, plus net transfers; **population growth** is measured as the percentage change in year-on-year population; **Industry Employment** is measured as the percentage of industry employment to total employment and **Institutions** (measured as an aggregate of six indicators (rule of law, government effectiveness, control of corruption, political stability, regulatory quality and voice and accountability). Data were obtained from the World Development Indicator of the World Bank.