

The Evolution of Venture Capital Ecosystems in Africa: New Evidence from EFINDA

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Abstract. This paper investigates the structure and the evolution of the venture capital (VC) ecosystem in Africa. Using a novel dataset—EFINDA—that integrates PitchBook and Moody’s Orbis M&A data, we examine 8,187 VC transactions across 53 African countries between 2010 and 2024. While documenting a rapidly expanding ecosystem, our analysis reveals stark geographic and sectoral concentration, alongside a profound reliance on foreign VC. City-level econometric analyses highlight that financial infrastructure – specifically the presence of a local stock exchange – and urban scale are strongly associated with VC activity concentration. Our findings carry critical implications for structural transformation, questioning whether current VC flows support broad-based and sustainable economic development in emerging economies. We argue that while integration with global capital markets is essential, the long-term maturation of African VC ecosystems depends on mitigating the risks of excessive foreign dependency and regional disparities.

Keywords: Venture Capital; Africa; Entrepreneurial Ecosystems, Agglomeration; Venture Capital Hubs.

1. Introduction

While the African continent is gaining prominence due to shifting geopolitics and demographic growth (Mariotti & Meacci, 2026), its development trajectory exhibits unique patterns compared to other regions of the Global South (Asiedu, 2002; Grabowski & Self, 2025), often associated with the phenomenon of premature deindustrialization (Rodrik, 2016). Unlike the historical paths of East Asian economies, many African nations are witnessing a shift toward services and professional sectors, bypassing a robust manufacturing phase (Clark, 2019), which may limit the continent's ability to foster long-term growth and technological innovation. In this broader context, African capital markets remain highly unevenly distributed and strongly dependent on foreign capital (Kabengele & Hahn, 2025; AVCA, 2025), raising important questions about the drivers and development of an efficient entrepreneurial finance market.

The international business and entrepreneurship literature has extensively examined the determinants of VC activity across countries and regions (e.g., Jeng & Wells, 2000; Li & Zahra, 2012; Groh & Wallmeroth, 2016; Grilli et al., 2018), highlighting the importance of macroeconomic conditions, institutional quality, and financial development. More recent work has emphasized the role of institutional voids and cross-border investment dynamics in emerging markets (Khurshed et

al., 2020; Zhang et al., 2024; Kabengele & Hahn, 2025). However, important research gaps remain. While prior studies have examined the role of international VC investors, especially in Asia, we still lack a systematic understanding of how global capital flows interact with local characteristics to shape the geography of VC in Africa. Also, little is known about the city-level drivers of VC concentration and how these drivers evolve over time in the African context. Addressing these gaps is critical to advancing both international business and entrepreneurship research, as Africa represents a unique empirical setting combining high institutional heterogeneity characterized by deep institution voids, strong dependence on foreign capital, and rapidly evolving entrepreneurial ecosystems.

Building on these considerations, this study investigates the spatial structure and the evolution of the African VC ecosystem by addressing three research questions. First, it examines how VC activity has evolved across African countries, sectors, and regions over time. Second, it explores the spatial patterns and cross-border dynamics shaping VC flows within the continent. Third, it analyzes the city-level factors driving the concentration of VC activity, and how these effects vary across different stages of ecosystem development and levels of foreign capital intensity.

To address these questions, we construct a novel dataset—EFINDA (Entrepreneurial Finance Database for Africa) —by integrating and cleaning records from PitchBook and Moody’s Orbis M&A. EFINDA provides an unprecedented mapping of 8,187 transactions across 53 countries from 2010 to 2024.

Our findings yield several important insights. First, while the African VC ecosystem has expanded significantly over time, it remains highly concentrated geographically, with a small number of countries and metropolitan hubs accounting for the majority of VC deals and investment volumes. Second, VC activity in Africa is overwhelmingly international, with foreign investors accounting for more than 70% of total investment volumes. The main sources of capital are the United States, the United Kingdom, and other European financial centers, while intra-African VC flows, although emerging, remain relatively limited in scale compared with global capital inflows. Third, our

econometric analysis reveals a twofold spatial hierarchy: at the country level, institutional quality is correlated to VC attractiveness, while at the city level, financial infrastructure (i.e., the presence of a stock exchange), and urban scale emerge as the primary drivers of VC concentration. Importantly, these effects strengthen over time, indicating a progressive institutionalization of the ecosystem. Finally, we show that the determinants of VC activity vary depending on the degree of foreign VC intensity, with connectivity (i.e., international airports) and institutional quality becoming more relevant in hubs characterized by higher foreign capital integration.

This study makes several contributions to the literature. First, it contributes to research on VC in emerging markets by providing one of the most comprehensive analyses of VC activity in Africa, a context that remains largely underexplored despite its growing importance (Adongo, 2011; Jaoui et al., 2022). By documenting the evolution, structure, and spatial concentration of VC, we extend existing knowledge beyond traditional emerging markets such as Asia and Latin America. Second, we contribute to international business research by exploring the cross-border capital flows of VC. Our findings highlight how global capital flows interact with local urban characteristics, providing a nuanced understanding of how international investors allocate capital in institutionally complex environments (Bruton et al., 2010; Hochberg et al., 2007; Kabengele & Hahn, 2025). Third, we contribute to the literature on the geography of entrepreneurial finance by bringing attention to the city-level dynamics of VC activity in Africa. By highlighting the role of financial infrastructure and urban scale, and documenting their evolving relevance over time, we offer novel insights into the mechanisms associated with the emergence of VC hubs in developing regions. Finally, from an empirical perspective, we introduce EFINDA, a novel and comprehensive database on entrepreneurial finance in Africa. This dataset represents a significant contribution, offering a valuable foundation for future research on VC, innovation, and entrepreneurial ecosystems in emerging markets where data availability has historically been limited.

The remainder of the paper is structured as follows. Section 2 provides the theoretical background of our study. Section 3 describes the EFINDA database and the empirical methodology. Section 4

presents the descriptive evidence and stylized facts. Section 5 discusses the results of our city-level econometric analysis. Finally, Section 6 concludes with managerial and policy implications for Africa's structural transformation, and future research directions.

2. Theoretical background

2.1 The institutional and spatial drivers of VC

VC plays a central role in financing innovation by addressing the high uncertainty, information asymmetries, and intangible asset intensity that characterize entrepreneurial ventures (Kortum & Lerner, 2000). However, VC is not a frictionless source of finance. Its effectiveness critically depends on the presence of enabling institutional and ecosystem-level conditions that facilitate investment, monitoring, and exit.

In advanced economies, VC activity is supported by well-developed financial markets, strong legal systems, and dense networks of intermediaries that facilitate information exchange and contract enforcement. As a result, VC ecosystems tend to emerge in specific institutional environments. A large body of literature shows that macroeconomic stability, institutional quality, and financial development are key determinants of VC activity across countries (Li & Zahra, 2012; Groh & Wallmeroth, 2016; Grilli et al., 2018). In particular, the availability of effective exit mechanisms is crucial. Black and Gilson (1998) and Jeng and Wells (2000) argue that the vitality of the VC industry is path-dependent on the development of local stock markets. The existence of a viable exit mechanism – primarily through Initial Public Offerings (IPOs) – is the *sine qua non* for the recycling of capital and the alignment of incentives between investors and entrepreneurs. These conditions shape both the scale and the structure of VC activity, influencing not only the volume of investment but also its allocation across sectors and stages.

Beyond institutional factors, the geography of VC is dictated by the logic of “urban buzz” and the mitigation of mobility costs. Chen et al. (2010) document that VC activity is notably non-uniform, clustering in specific metropolitan centers (like San Francisco or Boston) to exploit specialized

human capital and face-to-face information flows. Recent evidence further suggests that this spatial concentration is also shaped by the supply of risk capital itself. In particular, Chen and Ewens (2025) provide causal evidence that constraints on VC funding reduce local startup financing and induce firms to relocate toward established VC hubs, thereby reinforcing the geographic concentration of entrepreneurial and VC activity.

2.2 VC in emerging markets and Africa: institutional constraints, connectivity, and global networks

In many emerging markets, entrepreneurial ecosystems are characterized by institutional voids, defined as the absence of or weakness of supporting institutions such as regulatory frameworks, financial intermediation, and governance mechanisms (Khanna & Palepu, 1997; Mair & Marti, 2009; Bruton et al., 2010). These constraints increase transaction costs, exacerbate information asymmetries, and limit the effectiveness of formal contracting, thereby restricting the development of VC. Emerging market research consistently shows that such conditions represent significant barriers to entry for VC activity (Ahlstrom & Bruton, 2006; Groh & Wallmeroth, 2016; Adongo, 2011).

These challenges are particularly pronounced in the African context, where institutional weaknesses range from limited legal enforcement to severe information frictions. While traditional Foreign Direct Investment (FDI) in the region has historically followed natural resources or domestic market size (Asiedu, 2006; Carmody, 2017), VC follows a distinct logic centered on innovation-supporting infrastructure. In the absence of widespread and liquid local stock exchanges (Soumaré et al., 2021), the development of VC activity tends to track the footprint of specific financial and connectivity hubs.

Indeed, the African landscape is characterized by strong geographical fragmentation and high mobility costs, which make due diligence and monitoring difficult, increasing the importance of local presence and access to well-connected entrepreneurial ecosystems for VCs. Campante and Yanagizawa-Drott (2018) demonstrate that a city's position within the global air transportation

network constitutes a key determinant of business linkages, as the mobility of individuals facilitates the circulation of capital. For African entrepreneurs, being located in an internationally well-connected hub, e.g., Nairobi, Lagos, or Johannesburg, represents a structural condition for mitigating the liability of foreignness (Zaheer, 1995).

This spatial concentration is further reinforced by global investor networks. Kabengele and Hahn (2025) document the presence of homophily in cross-border investment decisions, whereby foreign investors, who provide the majority of capital, tend to favor founders with similar cultural or educational backgrounds. This pattern highlights a dual dynamic: while access to international capital is essential for the growth of entrepreneurial ecosystems, it may also generate new forms of path-dependency.

Taken together, these mechanisms suggest that the international connectivity of African cities is both physical and relational. Beyond transport infrastructure, access to global financial networks and investor relationships plays a key role in shaping the spatial distribution of VC, reinforcing the concentration of investment in a limited number of internationally connected hubs.

3. Data and Methods

3.1 Data

For the purpose of our study, we constructed a novel database, EFINDA, *Entrepreneurial Finance Database for Africa*, by integrating two prominent commercial sources commonly utilized in VC research: Pitchbook and Moody's Orbis M&A. Following the integration, a thorough procedure was undertaken to identify and remove duplicate transactions, ensuring data consistency and reliability. The resulting dataset encompasses over 13,500 entrepreneurial finance deals across 53 African countries, covering the period from 2010 to 2024. Although data coverage in private databases for the African context can be uneven, the aggregate figures derived from EFINDA align with the deal counts and investment volumes reported by local institutions such as the African Venture Capital Association (AVCA, 2025). In the following analyses, we focus on VC deals, which amount in the

considered time period to 8,187 transactions. This detailed dataset allows us to move beyond country-level aggregates and investigate the granular spatial dynamics and the trajectory of equity capital in Africa.

The dataset comprehends essential deal characteristics including transaction size, deal type, and stage of investment. Detailed information is also available for both the recipient firm—such as name, incorporation year, industry classification, and headquarters location—and the investing entity, including its name, type, and location.

3.2 Methodology

Our empirical analysis is structured around three complementary analyses, designed to provide a comprehensive understanding of the evolution and characteristics of the VC ecosystem in Africa.

We begin with a detailed descriptive mapping of VC activity across the continent. This analysis examines both the number of deals and the total investment volumes over time, allowing us to uncover broad temporal trends and establish stylized facts regarding the growth trajectories of VC activity in different African countries. Beyond basic deal characteristics—such as investment size, round type, and recipient firm attributes—we further characterize the ecosystem by macro-regions, highlight the most active and top-performing VC hubs, and assess the sectoral distribution of deals. This multi-dimensional approach provides a holistic overview of the structure, dynamics, and regional patterns of the African VC market.

Next, we examine the geography of VC flows, distinguishing between intra-African and extra-African cross-border investments. By mapping the origin and destination of capital, we track the structure of investment patterns. This analysis provides insight into the role of foreign investors and the degree of regional integration within the African VC ecosystem.

Third, we investigate the key factors driving the concentration of VC flows across African cities. To perform this analysis, we employ city-level dependent variables that capture both the number of VC deals and the total investment volume. The number of deals reflects the total count of VC

transactions observed in a given city during a specific period, while the total investment volume corresponds to the aggregate capital invested.

The independent variables are organized into four groups, each serving as empirical proxies for the economic and institutional (*MACRO*), financial (*FIN*), urban scale (*URBAN*), and infrastructural (*CONN*) characteristics that may shape the spatial distribution of VC across urban centers. Within the first group, *MACRO*, country-level economic development is controlled for through *GDP per capita* (source: World Bank), which captures the overall wealth of the national economy in which the city is embedded. While city-level GDP data are not systematically available for African urban areas, country-level GDP per capita remains a standard proxy for the macroeconomic environment facing investors and entrepreneurs, and is included alongside the other country-level controls. Then, *FDI/GDP* (net FDI inflows as a share of GDP; source: World Bank) proxies for financial openness and integration into global capital markets. Last, we account for institutional quality through a measure of the strength of the legal system at the country level, proxied by the rule of law (source: World Bank). Institutional quality is a key determinant of investor confidence, as VC investments rely heavily on enforceable contracts, protection of property rights, and predictable regulatory frameworks. This variable addresses the institutional voids (Bruton et al., 2010) that characterize emerging ecosystems, testing whether a robust legal architecture acts as a prerequisite for the transformation of urban hubs into viable investment destinations. All three variables enter the model lagged one period ($t-1$) to respect temporal ordering and ensure they are predetermined with respect to VC activity in the current period.

The second group, *FIN*, captures financial infrastructure at the city level through a single binary variable equal to one if the city hosts a *Stock exchange* with active trading during the period. This variable is constructed from official exchange-founding dates and closure records and is treated as institutionally predetermined: the establishment of a stock exchange reflects long-run policy decisions that are plausibly exogenous to short-run VC dynamics.

The third group, *URBAN*, captures demographic and urban scale through two complementary variables drawn from Africapolis (source: OECD/SWAC, 2025), which provides built-up area and population estimates at five-year intervals (2010, 2015, 2020, 2025).¹ For observation years falling between benchmarks, values are linearly interpolated to avoid artificial discontinuities at benchmark years. *Population density* is computed as the ratio of total urban agglomeration population to built-up area and proxies for the strength of urban agglomeration economies, capturing the pull forces that cities exert on economic activity (Henderson et al., 2021). *Built-up area* captures the physical extent of the agglomeration. Together, the two variables decompose the traditional population-size measure into its extensive-margin (area) and intensive-margin (density) components, allowing us to distinguish whether VC activity is driven by the sheer size of a city or by the concentration of activity within it.

The fourth group, *CONN*, captures connectivity and human capital endowments, both treated as time-invariant characteristics of the city. *International connectivity* is proxied by the log of the number of distinct international air destination served, derived from OpenFlights data (computed as the union across all IATA codes). Since the OpenFlights route network reflects a single cross-sectional snapshot, this variable enters the model as time-invariant city characteristics. Passenger flow data at the city level are not systematically available for African urban areas, so the number of served international destinations serves as the primary proxy for external connectivity and market integration. In the African context, where geographical fragmentation and high mobility costs constitute structural barriers, this variable proxies for the global bridges that allow international VC networks to mitigate information asymmetries (Campante and Yanagizawa-Drott, 2018). Last, *Human capital* is proxied by the log of the number of universities located in the city. Both variables reflect long-run investments in physical and educational infrastructure and are unlikely to respond to short-run changes in VC activity.

¹While population data for 2010 is sourced directly from Africapolis, built-up area for the same year has been back-projected using the average growth rate observed between 2015 and 2020 to reduce the number of missing values.

To analyze how these factors influence the spatial distribution of VC, we employ cross-sectional econometric models applied separately to multiple time periods. This city-period framework allows us to observe the evolution of VC concentration over time and to identify the economic, infrastructural, and institutional conditions that foster the development of prominent VC hubs across the African continent. Specifically, we estimate the following cross-sectional model for the full sample and separately for each of three 5-year sub-periods (2010-2014, 2015–2019, and 2020-2024):

$$VC_{it} = \alpha + \beta_1 MACRO_{ct-1} + \beta_2 FIN_{it} + \beta_3 URBAN_{it} + \beta_4 CONN_i + \epsilon_{it} \quad (1)$$

where i denotes city, c denotes country, and t denotes sub-period. The unit of observation is the city-period pair, where each period corresponds to a multi-year interval: 2010-2014, 2015–2019, and 2020-2024. Deal-level data are collapsed to this level by summing investment volumes and transaction counts within each city and period, so that it captures the total VC activity recorded in municipality i over the full duration of period t . This aggregation reduces the influence of year-to-year noise inherent in sparse deal-level data and aligns the outcome with the temporal resolution of the slower-moving structural regressors on the right-hand side. The same city-period structure is used throughout the empirical analysis, including in the pooled specification described below, so that all estimates are directly comparable. Both outcome variables are log-transformed with a unit shift— $\ln(x + 1)$ —to accommodate cities with zero recorded activity in a given period.

Equation (1) is estimated separately for each sub-period, yielding three sets of cross-sectional estimates that trace the evolution of city-level determinants over time. We complement these with a pooled specification that stacks all three periods and adds period fixed effects—binary indicators for the 2015–2019 and 2020-2024 intervals—to absorb aggregate temporal trends common to all cities, such as the global VC cycle and the structural maturation of the African startup ecosystem. Comparing the sub-period and pooled estimates therefore allows us to separate the cross-sectional geography of VC from its temporal dynamics. In all specifications, standard errors are

heteroskedasticity-robust. We do not include city fixed effects: the key regressors—stock exchange, urban scale (density and build-up area), connectivity, human capital—are either time-invariant or slow-moving structural characteristics, and absorbing city-level heterogeneity would eliminate precisely the variation we seek to explain. The city-period panel is balanced by retaining observations with zero VC activity, so that the results are not driven by selection into the active sample.

Finally, to investigate whether the determinants of VC activity differ systematically according to the degree of international investor presence, we complement the baseline with a split-sample analysis. For each deal, we compute the share of non-domestic investors in the syndicate, and aggregate it to a time-invariant city-level measure by averaging across all observed deal-years for each city. Cities above the sample median of this measure are classified as *high-foreign* (those with a structurally more internationalized VC ecosystem) while those below constitute the *low-foreign* subsample. The pooled specification with period fixed effects is then estimated separately for each group.

4. Results

4.1 Stylized facts on VC in Africa

4.1.1 Distribution of VC deals and volumes

We begin by documenting the main facts regarding the evolution and distribution of VC activity across Africa. Figure 1 and Figure 2 show the dynamics of VC deals and investment volumes between 2010 and 2024. Overall, the data reveal a strong expansion of the African VC ecosystem over the period considered. Both the number of transactions and the total amount invested increased substantially throughout the 2010s, reflecting the gradual emergence of a more structured entrepreneurial finance market across the continent². This growth, however, does not occur in a vacuum but follows a marked spatial logic. While early years are characterized by relatively limited

²2014 features a few outsized deals concentrated in Mauritius.

activity, the number of deals rises steadily over time, indicating growing investor interest in African startups.

[Figure 1 and Figure 2 about here]

Additional insights emerge from the descriptive statistics on VC rounds reported in Table 1. Early-stage investments³ dominate the African VC landscape, with 4,782 (more than 80%) observations. Startups receiving early-stage funding are on average approximately four years old at the time of investment, while firms receiving late-stage funding are slightly more mature, with an average age of about 5.7 years. Investment amounts also differ substantially across stages: early-stage rounds display an average investment size of \$5.6 million, whereas late-stage rounds average \$14.5 million. Despite these differences, median ticket sizes remain relatively small in both cases, especially compared to developed markets such as the United States or Europe.

The data also reveal important patterns regarding investor participation. Early-stage rounds involve on average about two investors, while late-stage rounds typically include larger syndicates, with more than three investors per deal on average. Across both stages, the presence of domestic investors remains relatively limited, with less than one domestic investor per round on average. Instead, VC deals in Africa rely heavily on foreign investors, particularly from the United States and Europe, confirming the strong international dimension of the continent's VC ecosystem.

[Table 1 about here]

Regional differences further characterize the African VC landscape. As illustrated in Figure 3, Western and Eastern Africa account for a significant share of deals, driven primarily by the strong startup ecosystems in Nigeria and Kenya. Southern Africa also represents an important VC region,

³We rely on the PitchBook classification to identify early-stage investments, specifically first and second rounds. For deals sourced from Orbis M&A, we classify as early-stage the first two investment rounds observed over time for firms founded after 2010, which corresponds to the beginning of our observation window. For firms established before 2010, this information is unavailable, as Orbis M&A does not allow us to reliably identify the round number. These observations are therefore treated as missing.

largely due to the role of South Africa. Northern Africa, particularly Egypt and Morocco, shows growing investment activity, while Central Africa remains marginal in terms of both deal count and investment volumes.

[Figure 3 about here]

Indeed, VC activity remains highly unevenly distributed across countries. Table 2 reports the distribution of deals and investment volumes by country and highlights a strong concentration in a limited number of markets. Four countries—Nigeria, South Africa, Kenya, and Egypt—account for the majority of VC activity on the continent. Together, these economies represent approximately 70% of all VC deals recorded in the dataset. Nigeria and South Africa alone account for more than 40% of total transactions, with 1,693 and 1,753 deals respectively. Kenya and Egypt follow with 1,165 and 1,113 deals.

A similar concentration emerges when considering investment volumes. Nigeria represents the largest destination for VC capital, accounting for nearly 25% of the total investment volume observed in the sample. South Africa, Kenya, and Egypt also attract substantial capital inflows, jointly representing a large share of the overall VC funding deployed in Africa. Beyond these leading markets, VC activity declines sharply, with most other countries capturing only a small fraction of total deals and investment volumes.

[Table 2 about here]

Interestingly, the distribution of VC does not strictly mirror broader macroeconomic indicators such as GDP or foreign direct investment (FDI). Figure 4 provides a comparison between the share of VC investments and the share of FDI inflows (net) received by each country. While some countries—such as Egypt and South Africa—display relatively aligned volumes of VC and FDI, others show substantial divergences. Nigeria and Kenya, for instance, attract a disproportionately large volume of VC relative to their share of FDI inflows, reflecting the strength of their startup

ecosystems and their role as regional innovation hubs. Conversely, several countries that capture significant FDI inflows host relatively limited VC activity, as FDI tend to be distributed more broadly across countries. These patterns suggest that VC follows dynamics that differ from those of traditional foreign investment, being more closely tied to entrepreneurial ecosystems and innovation clusters rather than to large-scale industrial or resource-based investments. This divergence shows that while FDI can be driven by resource-seeking motives, VC requires specific urban and institutional substrates to flourish.

[Figure 4 about here]

Overall, these descriptive patterns point to a VC market that, while rapidly expanding, remains strongly concentrated geographically. A small set of countries currently acts as the primary gateway for VC investments in Africa, reflecting the uneven development of entrepreneurial ecosystems across the continent.

4.1.2 Major African VC hubs

The geographic concentration of VC becomes even more evident when examining the distribution of deals at the city level, as illustrated in Figure 5 showing the mapping of VC deals across Africa. VC investments are overwhelmingly concentrated in a limited number of urban hubs that function as focal points for entrepreneurial activity, investor networks, and supporting institutions.

Table 3 reports the top 20 VC hubs. The ranking is led by Lagos, which emerges as the most active VC hub on the continent with 1,324 deals and more than \$7.3 billion in total investment. Lagos' leading position reflects the strength of Nigeria's technology ecosystem and the presence of numerous startups operating in sectors such as fintech, digital platforms, and e-commerce.

Other major hubs include Cairo-Giza and Nairobi, each recording over one thousand VC deals during the period analyzed. Cairo-Giza accounts for 1,049 transactions and approximately \$3.0 billion in investment, while Nairobi registers 1,046 deals and more than \$4.6 billion in total

funding. These cities represent the core of entrepreneurial activity in Northern and Eastern Africa, respectively, hosting dynamic startup ecosystems.

South Africa hosts several of the continent's most important VC hubs. Cape Town ranks fourth in terms of number of deals, followed by Johannesburg, while additional activity is observed in cities such as Stellenbosch and Pretoria. Together, these hubs highlight the central role played by South Africa in the African VC landscape, supported by relatively more developed financial markets and a long-standing entrepreneurial ecosystem.

Beyond these leading hubs, a second tier of cities includes Accra, Casablanca, Kampala, Tunis, Dakar, and Kigali. Although these cities record smaller volumes of investment, they nevertheless play an important role in fostering regional entrepreneurial ecosystems.

The data also reveal substantial heterogeneity in investment size across hubs. While major ecosystems such as Lagos, Nairobi, and Cape Town combine large deal counts with significant funding volumes, some locations exhibit relatively fewer deals but larger investment tickets. For example, financial centers such as Port Louis and Ebene in Mauritius display extremely high average ticket sizes, reflecting their role as financial and legal jurisdictions through which large investments are often structured.

[Figure 5 about here]

[Table 3 about here]

Overall, the evidence indicates that VC activity in Africa is highly urbanized and concentrated in a small number of metropolitan areas. We will further explore the determinants of VC concentration in hubs in section 4.3.

4.1.3 Sectoral breakdown

In this section, we examine the sectoral distribution of VC investments. Table 4 reports the number and share of deals by industry, providing an overview of the sectoral composition of the African VC ecosystem. The evidence reveals a strong concentration of investments in technology-related

industries. In particular, the Information Technology sector dominates the landscape, accounting for 4,186 deals, corresponding to 51.1% of all VC transactions in the sample. This reflects the central role played by digital innovation and technology-enabled business models in the development of entrepreneurial ecosystems across the continent. Beyond the IT sector, VC activity is distributed across a range of other industries, although with significantly smaller shares. Manufacturing represents the second largest sector, with 1,278 deals (15.6% of the total), followed by services-related activities with 887 deals (10.8%). Financial services also represent a relevant segment of the African VC ecosystem, accounting for 665 deals (8.1%). This category largely reflects the prominence of fintech ventures, which have emerged as a key driver of innovation in several African markets, particularly in areas such as digital payments, mobile banking, and financial inclusion. Other sectors account for relatively smaller shares of VC activity. Trade-related businesses represent 6.3% of deals, while transportation accounts for 3.3%. Investments in agriculture and research and development (R&D) remain more limited, representing 2.6% and 2.1% of deals respectively.

[Table 4 about here]

While the aggregate sectoral distribution provides an overview of investment patterns across the continent, the specialization of VC activity varies significantly across major entrepreneurial ecosystems. Figure 6 illustrates the relative sectoral specialization of the five largest VC hubs—Cairo–Giza, Cape Town, Johannesburg, Lagos, and Nairobi. The index is computed as the ratio between a sector’s share of VC investments within a given hub and its corresponding share at the continental level, centered around zero. The figure highlights several notable patterns. First, Cairo–Giza exhibits a strong relative specialization in transportation and trade-related activities, while showing lower relative investment in agriculture, financial services, and R&D. Cape Town displays a markedly different profile, characterized by a strong concentration in R&D activities and a relative underrepresentation of sectors such as agriculture, manufacturing, and transportation. This

pattern is consistent with the presence of a relatively mature innovation ecosystem in the South African context, where VC frequently targets technology-intensive, research-driven startups. Johannesburg, by contrast, shows a pronounced specialization in financial services, reflecting the role of the city as one of the main financial centers of the continent. Nairobi also displays a distinctive pattern, with a strong relative presence of investments in financial services and transportation, while maintaining a balanced distribution across several other sectors. This reflects the dynamism of Nairobi's digital and fintech ecosystems, which have attracted significant investor attention in recent years. Finally, Lagos shows a strong relative specialization in information technology investments, confirming its role as one of the leading technology hubs in Africa. At the same time, several other sectors—including agriculture, manufacturing, trade, and R&D—appear relatively underrepresented compared with the continental average. This pattern is consistent with the prominence of digital platforms and technology-enabled startups in the Nigerian entrepreneurial ecosystem.

[Figure 6 about here]

Overall, the evidence suggests that while VC investments in Africa are heavily concentrated in technology-related activities, important differences exist across cities in terms of sectoral specialization. These patterns reflect the heterogeneous structure of local entrepreneurial ecosystems and the presence of distinct industry clusters across major African VC hubs.

4.2 Cross-border investments

We now examine the extent to which VC investments are domestic or cross-border and analyze the geographic origins of the capital deployed in African entrepreneurial ventures.

Table 5 reports the distribution of deals and investment volumes across these categories for transactions with known investor origin and non-missing investment amounts. The evidence highlights the predominantly international nature of VC activity in Africa. A majority of transactions—3,655 deals, corresponding to 55.6% of the sample—are financed exclusively by

foreign investors. These deals account for an even larger share of total investment volume, representing more than 71% of the capital invested in the observed transactions. By contrast, deals financed solely by domestic investors amount to 1,803 transactions (27.4% of the total) and represent only 11.7% of the overall investment volume. The remaining 1,120 deals (17.0%) involve mixed investor syndicates composed of both domestic and foreign participants and account for approximately 17.2% of total investment.

[Table 5 about here]

These figures clearly indicate that the African VC market relies heavily on foreign capital. This reliance underscores the role of international networks in bypassing local institutional voids. Not only are foreign investors involved in the majority of deals, but they also account for a disproportionately large share of the total capital deployed.

We next examine the geographical origin of foreign investors. Table 6 reports the top 20 countries of origin for investors participating in VC deals involving African startups. The results reveal a strong concentration of investors from a small set of advanced economies and global financial centers. The United States emerges as by far the most prominent source of capital, with investors based in the country participating in 4,230 deals and contributing more than \$40.7 billion in total investment. U.S. investors therefore represent the single most important source of external capital for African startups, both in terms of deal participation and funding volume.

The United Kingdom represents the second most important source of VC investment, with 889 deals and nearly \$16 billion in invested capital. Other European countries also feature prominently among the main investor origins, including France, the Netherlands, Germany, Switzerland, Sweden, and Norway. Collectively, European investors play a central role in financing African startups, reflecting long-standing economic, institutional, and historical ties between European countries and African markets.

In addition to Western investors, a number of financial and regional hubs also appear among the main sources of VC. Mauritius ranks third in terms of number of deals, reflecting its role as an important financial hub through which investments in Africa are often structured. Similarly, several African countries themselves—most notably South Africa, Nigeria, Kenya, and Ghana—appear among the top 20 investor origins, indicating the presence of a growing but still relatively limited intra-African investment base.

Asian investors also contribute to the African VC ecosystem, although to a lesser extent than their Western counterparts. Countries such as Japan, Singapore, China, and Hong Kong appear among the main investor origins. While the number of deals involving Chinese investors is relatively modest compared with other leading countries, the average ticket size associated with Chinese investments is particularly large, reflecting the presence of a smaller number of high-value transactions.

[Table 6 about here]

To further examine the geography of cross-border capital flows, Table 7 presents the distribution of investments by investor region and destination region. The table highlights the strong presence of investors from Northern America and Europe across all African regions. Investors from Northern America account for approximately 40% of cross-border deals overall, representing the largest source of external capital for African startups. Their presence is particularly pronounced in Eastern, Southern, and Western Africa, where they account for more than 40% of investments. European investors represent the second most important group, contributing about 26% of cross-border deals and displaying a relatively balanced distribution across African regions. Foreign African investors represent a smaller but still significant share of cross-border investment activity, accounting for approximately 18% of deals. This indicates that although intra-African investment networks exist, they remain less developed compared with those linking African ecosystems to global VC markets.

Asian investors account for roughly 12% of cross-border deals and are particularly active in Northern Africa, where they represent nearly one quarter of investments.

[Table 7 about here]

Finally, Table 8 provides a closer look at the structure of intra-African cross-border investment flows. The evidence suggests that these investments are concentrated within a limited number of regional corridors. Investors based in Eastern Africa account for the largest share of intra-African cross-border investments, representing approximately 41% of deals overall and displaying particularly strong investment links with Southern Africa (65%) and Western Africa (38%). Western African investors represent the second largest group, contributing roughly 31% of intra-African investments and maintaining active connections with both Eastern (31%) and Southern Africa (28%).

Investors from Southern Africa account for approximately 21% of intra-African deals, while Northern African investors play a relatively smaller role in cross-border investments within the continent, i.e., 7% overall, but for the most part within other Northern African countries. These patterns suggest that while intra-African VC networks are emerging, they remain unevenly distributed and concentrated among a limited set of regional ecosystems.

[Table 8 about here]

Overall, the evidence presented in this section highlights the strongly international nature of the African VC ecosystem, where investments are overwhelmingly financed by foreign investors, particularly those based in the United States and Europe, with a notable concentration in the United Kingdom. At the same time, while intra-African investment networks are gradually developing, they remain relatively limited compared with the scale of capital flows originating from global VC markets.

4.3 Results on VC hub concentration

This section investigates the city-level factors that drive the concentration of VC activity documented in Section 4.1.2. Table 9 reports pooled OLS estimates for log investment volume (columns 1–2) and log transaction count (columns 3–4), with and without period fixed effects. Table 10 disaggregates the pooled estimates across the three sub-periods.

Two determinants emerge as robust predictors of VC activity across all specifications and both outcome variables. The presence of a local stock exchange carries the largest and most precisely estimated coefficient in every model: the point estimate ranges from 0.18 (log volume, pooled) to 0.26 (log transactions, pooled), and remains virtually unchanged after the inclusion of period fixed effects, confirming that the result reflects cross-sectional differences across cities rather than aggregate time trends. The magnitude is economically meaningful: cities that host a stock exchange record, on average, approximately 20 percent higher VC volumes and 29 percent more transactions than otherwise comparable cities. This finding is consistent with the view that formal financial markets generate a supporting ecosystem including, e.g., institutional investors, legal and accounting infrastructure, regulatory familiarity, that systematically lowers transaction costs for VC investors and increases the legibility of a city to international funds. It also complements the patterns documented in Section 4.2, where cities with more developed financial systems, such as Johannesburg, Nairobi, and Lagos, account for the largest shares of cross-border capital inflows.

Both urban scale variables are significant predictors of VC activity in the pooled specifications. Built-up area carries a positive coefficient (0.038 for investment volume and 0.075 for transaction count, significant at 1% in all specifications), confirming that larger cities in physical terms attract systematically more VC activity. Population density is also positive and significant (0.042 for volume and 0.090 for transaction count), indicating that a denser concentration of economic activity within the urban footprint independently raises both the number and volume of deals. The relatively higher coefficient observed for transaction count compared to investment volume suggests that urban scale and density may primarily facilitate a broader market of investable firms and lower search costs for investors, rather than directly driving larger individual ticket sizes. These findings

align with the descriptive evidence in Section 4.1.2, where the largest deal counts are concentrated in the continent's most densely built metropolitan areas such as Lagos, Cairo-Giza, and Nairobi.

By contrast, macroeconomic variables (GDP per capita and FDI-to-GDP ratio) do not significantly predict VC activity at the city level once country-level heterogeneity is implicitly absorbed through the cross-sectional design. The rule of law is significant for transaction count in the pooled specification with period effects, consistent with the country-level evidence from the broader VC literature, but its effect is diluted when variation is confined to city-level comparisons within the same country. International air connectivity, university count, and capital-city status do not reach conventional significance thresholds in any specification, suggesting that these factors do not independently differentiate cities within the African sample once financial infrastructure and market size are controlled for.

[Table 9 about here]

The sub-period estimates in Table 10 reveal a temporal dynamic that integrates the pooled results. The coefficient on stock exchange increases across periods for both outcomes: from 0.15 before 2015 to 0.27 post-2020 for invested volumes, and from 0.13 to 0.35 for the number of transactions, over the same horizon. A similar pattern characterizes both urban scale variables. The built-up area coefficient rises from near-zero and statistically insignificant before 2015 to 0.057 (volumes) and 0.101 (transactions) post-2020, while the population density coefficient follows a similar trajectory, reaching 0.034 and 0.078 post-2020 for volumes and transactions respectively. These results suggest that the co-location benefits of financial infrastructure, physical urban scale, and economic density have all become increasingly relevant as the African VC ecosystem has matured. In the 2010–2015 phase, deal activity was driven by a small number of pioneering funds with limited sensitivity to local structural conditions; as the market has deepened and institutionalized, the locational premium associated with financial centers, larger built-up footprints, and denser urban economies has strengthened considerably.

Taken together, the evidence points to a two-tier spatial hierarchy. At the country level, institutional quality, macroeconomic development, and financial openness characterize the aggregate attractiveness of national markets. At the city level, however, it is the presence of formal financial infrastructure and urban scale that determine which cities within those countries emerge as investment hubs. The growing strength of these effects over the past decade reflects the transition of African VC from a niche activity dominated by a handful of internationally connected cities to a more institutionally embedded and geographically structured asset class.

[Table 10 about here]

Table 11 reports the split-sample estimates. The sample is divided on the basis of a time-invariant measure of the average share of non-domestic investors across all deals observed in each city over the full sample period. Cities above the median, where the majority of deals involve at least one foreign investor, are classified as *high-foreign*, while cities below, where VC activity is predominantly domestic, constitute the *low-foreign* subsample. The results reveal systematic heterogeneity in the determinants of VC activity across the two subsamples. The stock exchange coefficient is substantially larger in low-foreign cities, rising from 0.053 to 0.270 for volumes and from 0.127 to 0.328 for transactions, suggesting that local financial infrastructure is a binding constraint primarily where domestic capital is more present, while its marginal contribution reduces in internationally integrated ecosystems where investors are less dependent on local institutions. The two urban scale variables reveal a clear pattern of heterogeneity across subsamples. Built-up area (extensive scale) is a significant driver primarily in low-foreign cities (0.059 on volumes and 0.132 on transactions), but remains near-zero and insignificant in high-foreign contexts. This suggests that the physical extent of the urban agglomeration is a binding constraint mainly where domestic investors source deals through local networks. Conversely, population density (intensive scale) shows the opposite pattern: while insignificant in low-foreign cities, it emerges as a critical predictor in high-foreign cities (0.049 on volumes and 0.125 on transactions). This indicates that

while domestic funds rely on the overall physical expansion of markets, international investors are more sensitive to the concentration and thickness of the urban ecosystem.

International air connectivity, insignificant in the baseline and in the low-foreign subsample, emerges as a significant predictor exclusively in high-foreign cities (0.013 on volumes, 0.019 on transactions), consistent with air routes operating as a gateway for cross-border deal flow rather than as a general enabler of VC activity. Similarly, rule of law is significant on both outcomes only in the high-foreign subsample, pointing to institutional quality as a primary screening criterion for international investors conducting due diligence from a distance. Universities exhibit a sign reversal across groups: negative and significant in low-foreign cities, positive and significant for transactions in high-foreign cities, consistent with academic spillovers attracting cross-border rather than domestic investors.

[Table 11 about here]

5. Discussion and Conclusions

This paper provides a comprehensive analysis of the evolution and structure of the VC ecosystem across Africa. Using a novel dataset that integrates information from PitchBook and Moody's Orbis M&A, we document more than 8,000 VC transactions across 53 African countries between 2010 and 2024. Our analysis offers a detailed mapping of VC activity across the continent, examining its geographic distribution, sectoral specialization, and the role of cross-border investment flows in shaping emerging entrepreneurial ecosystems.

The results highlight several key facts about the African VC market. First, VC activity has expanded substantially over the past decade, reflecting the gradual emergence of more structured entrepreneurial ecosystems across the continent. However, this growth remains highly concentrated geographically in a limited number of countries and metropolitan hubs, which act as focal points for entrepreneurial activity and capital allocation.

Second, the African VC ecosystem is characterized by a strong international dimension. Cross-border investments represent the dominant form of financing, with the majority of deals involving foreign investors and a large share of investment capital originating from outside the continent. Investors based in the United States and Europe play a particularly prominent role, although capital flows also originate from Asia and other regions. At the same time, intra-African VC flows are gradually emerging, albeit at a more limited scale compared with global capital flows.

Third, the econometric analysis reveals a twofold spatial hierarchy in the determinants of VC concentration. At the country level, macroeconomic fundamentals and institutional quality influence aggregate market attractiveness. At the city level, it is the financial infrastructure and urban scale that determine which cities emerge as hubs within their countries: cities hosting a stock exchange record systematically higher volumes and deal counts across all specifications, while both the physical extent of the urban agglomeration (built-up area) and population density are robust predictors of deal frequency and volume. Macroeconomic conditions, connectivity, and human capital do not independently differentiate cities once these two factors are controlled for. Notably, both effects have strengthened monotonically across sub-periods, with the stock exchange coefficient nearly doubling from pre-2015 to post-2020, pointing to a progressive institutionalization of the VC ecosystem in which locational advantages tied to developed financial centers have become increasingly relevant. Last, the determinants of VC activity are not uniform across cities but depend on the degree of international capital intensity. Financial infrastructure and urban scale are relevant in both cases, but their magnitude varies sharply: in domestically oriented cities they are the dominant drivers, while in internationally integrated hubs connectivity and institutional quality take on a more prominent role, consistent with foreign investors placing greater relevance on governance conditions and accessibility when allocating capital at a distance. Taken together, our findings suggest that the development of the African VC ecosystem is shaped by a combination of city-level financial and urban ecosystem characteristics, institutional environments, and strong linkages to global capital markets.

5.1 Contributions of the study

This study contributes to the growing literature on VC and international business by providing new insights into the determinants and spatial dynamics of VC activity in emerging markets (Bruton et al., 2010; Adongo, 2011; Groh & Wallmeroth, 2016). While much of the existing literature on VC has focused on emerging ecosystems in Asia, China or Latin America, relatively limited attention has been devoted to understanding how VC markets evolve in Africa, a context characterized by institutional heterogeneity, market fragmentation, and developing entrepreneurial infrastructures. Our findings highlight the critical role played by institutional contexts and structural conditions in shaping VC allocation and ecosystem development. In particular, the emergence of a limited number of VC hubs across the continent suggests that entrepreneurial ecosystems tend to develop in locations where favorable combinations of institutional quality, market size, and financial infrastructures are present.

Moreover, the strong presence of foreign investors in the African VC market underscores the relevance of cross-border capital flows, that are more important compared to other emerging ecosystems as they can mitigate local institutional voids (Hochberg et al., 2007; Kabengele & Hahn, 2025). International investors not only provide financial resources but also connect local startups to global knowledge networks and international markets. In this sense, the African context provides an important empirical setting for understanding how global VC networks interact with local entrepreneurial ecosystems.

From an empirical perspective, this study also makes an important contribution by providing new large-scale evidence on VC activity across Africa. We introduce EFINDA, a harmonized database on entrepreneurial finance transactions covering the entire African continent. By integrating multiple commercial data sources and harmonizing deal-level information, the dataset allows for a comprehensive mapping of VC activity across countries, cities, industries, and investor origins. The data provide a valuable foundation for future research on entrepreneurial finance and innovation in Africa, where reliable data on VC activity are scarce.

5.2 Practical implications

The findings of this study carry important implications for policymakers, entrepreneurs, investors, and other stakeholders involved in the development of entrepreneurial ecosystems in Africa. For policymakers, the results provide evidence-based insights that can inform the design of regulatory and financial environments aimed at attracting VC, supporting high-growth entrepreneurship, and ultimately mitigating the risks of premature deindustrialization (Rodrik, 2016). Rather than pursuing dispersed national subsidies, a spatially targeted development strategy centered on strengthening key urban hubs. In particular, the results highlight the importance of strengthening institutional quality and developing financial infrastructures that can support venture financing. The evidence that cities hosting a stock exchange systematically attract higher volumes of VC investment suggests that the development of financial centers plays a critical role in shaping the geography of entrepreneurial finance. In this respect, policies aimed at strengthening capital markets, improving financial intermediation, and enhancing the institutional environment may contribute to increasing the attractiveness of African ecosystems for both domestic and international investors. The identification of a limited number of metropolitan hubs concentrating most VC activity also provides useful guidance for policymakers seeking to promote regional innovation clusters. By understanding the characteristics that differentiate these hubs from other locations, governments can design more targeted interventions aimed at supporting high-potential regions and strengthening the foundations of local entrepreneurial ecosystems. At the same time, the strong international dimension of the African VC market suggests that policies facilitating cross-border investment flows and integration with global capital markets may play a key role in sustaining the growth of the ecosystem overall.

For investors and entrepreneurs, the analysis offers valuable insights into the structure and spatial organization of VC opportunities across African markets. By mapping the distribution of investment activity across countries and cities, the study helps global investors better understand where entrepreneurial ecosystems are emerging and where VC activity is most concentrated. In

particular, the identification of a limited number of urban hubs—often associated with the presence of financial infrastructure and large urban markets—provides investors with a clearer picture of where entrepreneurial clusters are developing and where deal flow is more likely to be concentrated. This information can support more informed capital allocation decisions and facilitate entry into ecosystems where the presence of startups, investors, and supporting institutions creates favorable conditions for venture-backed growth.

Understanding the geographic patterns of VC investment can help entrepreneurs better assess where funding opportunities are more abundant and where entrepreneurial ecosystems provide stronger support for venture growth. The strong presence of foreign investors in African deals further suggests that entrepreneurs may benefit from developing capabilities that facilitate engagement with international investors, such as adopting governance practices aligned with global investment standards, building scalable business models, and establishing networks that connect local startups with international capital and global entrepreneurial ecosystems. Nevertheless, this global integration warrants a word of caution. While cross-border flows accelerate market building, the extreme reliance on foreign capital and its concentration in a few globalized hubs may create innovation islands disconnected from the broader national economy. To address this, policies should not only aim at attracting VC but also at fostering local exit mechanisms and capital recycling to reduce vulnerability to global financial shocks.

5.3 Future research directions

This study also opens several avenues for future research. A first important direction concerns the implications of the strong reliance on foreign VC observed in African ecosystems. While international investors play a crucial role in providing capital and connecting startups to global networks, a high dependence on foreign funding may also expose local ecosystems to exogenous shocks, such as changes in global financial conditions or shifts in international investment strategies. Future research could therefore investigate how reliance on foreign VC affects the

resilience and long-term development of local entrepreneurial ecosystems, as well as its implications for the growth of domestic capital markets.

A second avenue concerns the nature of the value provided by foreign investors to African startups. Beyond financial capital, VCs often contribute managerial expertise, strategic guidance, reputational signaling, and access to international networks. Understanding whether African entrepreneurs benefit more from the financial resources or from the value-added services provided by foreign VCs represents an important area for future investigation.

Third, additional research could explore the spatial dynamics of VC hubs across the continent. The emergence of a limited number of leading VC hubs raises important questions regarding cumulative advantage and ecosystem development. Future studies could examine whether existing hubs reinforce their dominance over time or whether secondary ecosystems are able to emerge and scale. Similarly, further research could assess whether the concentration of VC in a few metropolitan areas promotes innovation spillovers or, conversely, hinders broader regional integration. Moving beyond geography, future studies can also investigate the sectoral implications of this spatial concentration. Specifically, it remains to be tested whether VC hubs actively drive structural transformation (Kortum & Lerner, 2000) or whether they predominantly reinforce a service-led growth trajectory – such as fintech and digital platforms – that remains largely disconnected from the broader industrial economy (Clark, 2019; Rodrik, 2016).

Finally, future research could evaluate the effectiveness of specific policy interventions aimed at fostering VC ecosystems in emerging markets. Governments across Africa are increasingly implementing policies designed to bridge institutional gaps, stimulate startup creation and innovation, and attract international investors. Systematic evaluations of these initiatives would provide valuable insights into which policy instruments are most effective in supporting the development of VC and, more broadly, the entrepreneurial finance ecosystem in emerging economies like Africa.

Statements and Declarations

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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Figures

Figure 1: Number of VC deals over the years

Figure 2: VC volumes over the years

Figure 3: Number of VC deals and volumes over the years by African Region

Figure 4: VC vs. FDI inflows by country

Figure 5: Distribution of VC volumes (mln) by city (2010-2024)

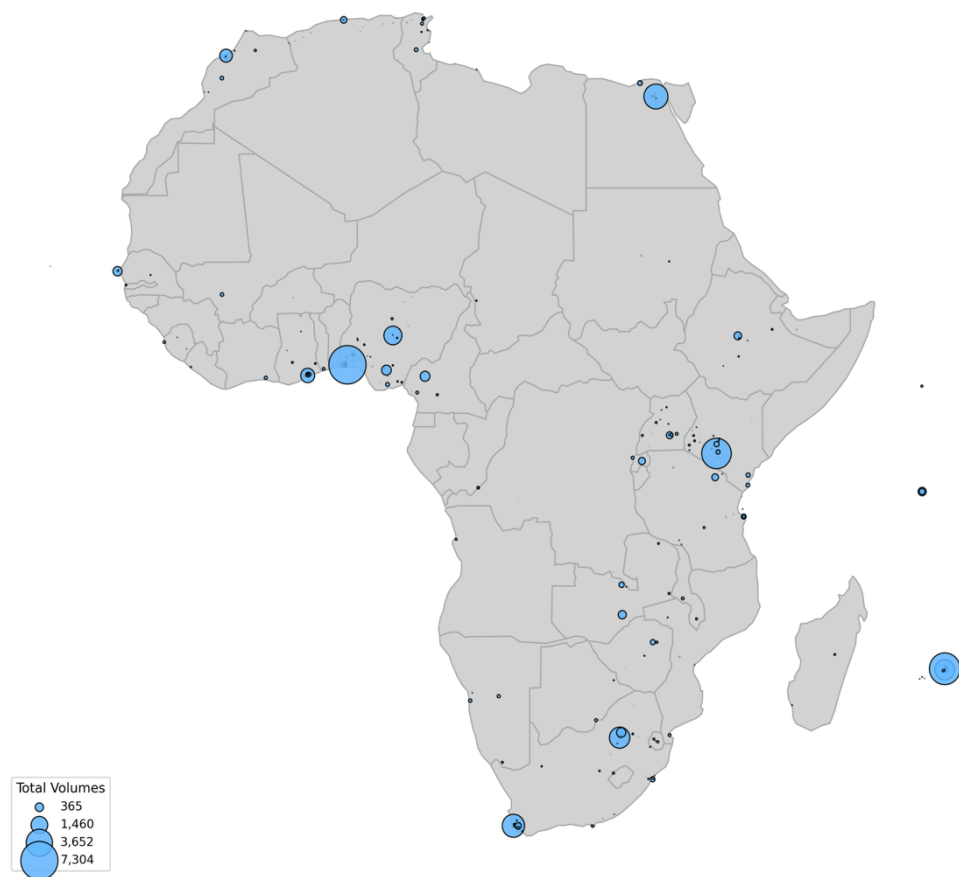


Figure 6: Industry specialization indices by top 5 VC hub

Tables

Table 1: Descriptive statistics on VC rounds

	Early-stage VC				Late-stage VC			
	N	Mean	SD	p50	N	Mean	SD	p50
Age at investment	4,782	3.83	5.08	3	1,015	5.7	3.14	5
Amount	3,828	5.62	40.50	0.5	876	14.5	74.9	2.75
Number of investors	6,513	2.05	2.21	1	1,243	3.28	3.03	2
Number of investors (known country)	5,173	2.12	2.09	1	1,000	3.54	2.85	2
Number of domestic investors	5,173	0.63	0.85	0	1,000	0.61	1.02	0
Number of foreign African investors	5,173	0.28	0.60	0	1,000	0.45	0.82	0
Number of foreign investors	5,173	1.49	2.02	1	1,000	2.93	2.73	2
Number of US investors	5,173	0.57	1.16	0	1,000	1.20	1.59	1
Number of Asian investors	5,173	0.17	0.55	0	1,000	0.34	0.69	0
Number of Chinese investors	5,173	0.02	0.23	0	1,000	0.03	0.21	0
Number of European investors	5,173	0.38	0.76	0	1,000	0.77	1.12	0

Table 2: Distribution of VC deals, volumes, GDP and FDI inflows by country

	N deals	Share (%)	Amount (mln)	Share (%)	GDP (%)	FDI inflows (%)
South Africa	1,753	21.41	6589.02	16.11	15.96	13.80
Nigeria	1,693	20.68	10140.77	24.79	21.97	8.13
Kenya	1,165	14.23	5134.94	12.55	3.58	1.68
Egypt	1,113	13.59	3396.99	8.31	17.08	25.16
Ghana	346	4.23	1369.73	3.35	2.57	6.00
Morocco	232	2.83	975.34	2.38	5.18	5.09
Tunisia	219	2.67	264.14	0.65	2.12	2.01
Uganda	203	2.48	422.47	1.03	1.67	3.36
Mauritius	165	2.02	7438.26	18.19	0.58	1.01
Senegal	147	1.8	453.06	1.11	0.89	2.63
Seychelles	136	1.66	1091.91	2.67	0.06	0.32
Rwanda	113	1.38	254.10	0.62	0.42	0.62
Zambia	110	1.34	552.73	1.35	0.99	1.82
Tanzania	104	1.27	447.54	1.09	2.55	3.25
Ethiopia	87	1.06	440.26	1.08	3.32	5.55
Algeria	73	0.89	234.95	0.57	7.24	2.34
Cameroon	71	0.87	568.30	1.39	1.42	1.43
Cote d'Ivoire	64	0.78	51.44	0.13	1.69	1.80
Zimbabwe	44	0.54	157.92	0.39	0.83	0.56
Burkina Faso	39	0.48	22.31	0.05	0.46	0.32
DRC	31	0.38	69.71	0.17	1.35	2.61
Madagascar	27	0.33	40.73	0.10	0.41	0.85
Namibia	25	0.31	131.80	0.32	0.38	1.23
Mali	23	0.28	64.34	0.16	0.55	0.75
Mozambique	21	0.26	102.11	0.25	0.43	4.31
Niger	21	0.26	15.52	0.04	0.28	0.83
Malawi	16	0.2	60.79	0.15	0.29	0.27
Angola	14	0.17	19.12	0.39	0.33	0.23
Botswana	14	0.17	159.63	0.05	2.47	-3.24
Congo	13	0.16	38.79	0.09	0.24	1.80
Benin	13	0.16	0.04	0.00	0.36	0.33
Sierra Leone	10	0.12	37.37	0.09	0.15	0.26
<i>Others</i>	82	1.00	153.54	0.38	2.18	2.87
Total	8,187	100.00	40,900	100.00	100.00	100.00

Table 3: Descriptive statistics on top 20 VC hubs

Rank	Country	City	N deals	N deals with disclosed amount	Total amount (mln)	Average ticket size (mln)	Median ticket (mln)
1	Nigeria	Lagos	1,324	868	7,305	8.42	0.60
2	Egypt	Cairo-Giza	1,049	659	3,049	4.63	0.60
3	Kenya	Nairobi	1,046	722	4,607	6.38	1.00
4	South Africa	Cape Town	814	436	2,620	6.01	1.00
5	South Africa	Johannesburg	525	277	2,209	7.98	0.55
6	Ghana	Accra	245	148	1,026	6.93	0.50
7	Morocco	Casablanca	178	127	836	6.58	0.82
8	Uganda	Kampala	168	103	232	2.25	0.50
9	Tunisia	Tunis	128	65	75	1.15	0.21
10	Senegal	Dakar	124	57	436	7.64	0.75
11	Rwanda	Kigali	106	63	254	4.03	1.00
12	Nigeria	Abuja	102	63	1,719	27.29	0.30
13	Zambia	Lusaka	92	60	346	5.76	1.09
14	South Africa	Stellenbosch	82	39	201	5.16	0.91
15	Mauritius	Ebene	65	43	2,065	48.02	20.00
16	Ethiopia	Addis Ababa	61	35	304	8.69	1.61
17	Seychelles	Mahé	58	32	349	10.91	4.40
18	Tanzania	Dar Es Salaam	56	37	122	3.29	0.50
19	Mauritius	Port Louis	55	40	4,984	124.59	28.50
20	South Africa	Pretoria	54	26	449	17.28	3.56

Table 4: Industry distribution

	N deals	%
Information Technology	4,186	51.13
Manufacturing	1,278	15.61
Services	887	10.83
Financial Services	665	8.12
Trade	519	6.34
Transportation	269	3.29
Agriculture	209	2.55
R&D	174	2.13
Total	8,187	100

Table 5: Foreign vs domestic deals

	N deals	%	Total amount (mln)	%
Only Foreign	3,655	55.56	24,367	71.12
Only Domestic	1,803	27.41	3,996	11.66
Mixed	1,120	17.03	5,899	17.22
Total	6,578	100.00	34,262	100.00

Note: the table reports the number of deals and the total invested amount for deals with known investor origin and non-missing investment value.

Table 6: Foreign investor origin, top 20 countries

Rank	Country	N deals	N deals with disclosed amount	Total amount (mln)	Average ticket size (mln)	Median ticket (mln)
1	United States	4,230	3,190	40,723	12.77	2.70
2	United Kingdom	889	696	15,924	22.88	3.50
3	Mauritius	463	284	2,644	9.31	2.65
4	France	461	329	9,478	28.81	5.00
5	South Africa	403	325	4,440	13.66	1.50
6	Netherlands	346	237	2,927	12.35	3.10
7	Nigeria	331	220	1,108	5.04	2.00
8	Japan	302	222	3,265	14.71	1.90
9	Singapore	297	224	2,332	10.41	2.93
10	Kenya	270	201	1,128	5.61	1.80
11	United Arab Emirates	249	183	2,042	11.16	3.60
12	Switzerland	246	164	798	4.86	1.03
13	Germany	220	145	1,821	12.56	3.70
14	Burkina Faso	150	23	118	5.13	3.20
15	Canada	147	107	994	9.29	1.70
16	China	135	115	5,559	48.33	10.00
17	Hong Kong	129	94	2,068	22.00	3.10
18	Sweden	104	76	819	10.77	3.45
19	Norway	90	72	797	11.07	1.40
20	Ghana	88	75	447	5.96	2.10

Table 7: Cross-border investment share by African Region

Destination Region → Investor Region ↓	Central Africa	Eastern Africa	Northern Africa	Southern Africa	Western Africa	Total
Northern America	15.62	40.02	29.14	42.06	43.82	40.28
Europe	42.19	28.09	25.61	31.92	21.51	26.20
Africa foreign	27.08	16.30	15.78	15.14	20.41	17.81
Asia	11.98	11.69	24.72	5.52	11.39	11.93
RoW	3.12	3.90	4.75	5.37	2.87	3.77

Note: Figures are based on the number of deals.

Table 8: Intra-African cross-border investment share by African Region

Destination Region → Investor Region ↓	Central Africa	Eastern Africa	Northern Africa	Southern Africa	Western Africa	Total
Eastern Africa	40.38	39.67	26.57	65.02	38.41	40.93
Western Africa	38.46	31.35	25.87	27.59	32.14	31.05
Southern Africa	15.38	24.81	11.89	4.93	23.82	20.95
Northern Africa	5.77	4.16	35.66	2.46	5.64	7.07

Note: Figures are based on the number of deals.

Table 9: City-level determinants of VC activity: pooled OLS estimates

Dependent Variable	VC Volume		VC Transactions	
	(1)	(2)	(3)	(4)
	No period FE	Period FE	No period FE	Period FE
GDP per capita	0.011 (0.009)	0.011 (0.009)	0.009 (0.014)	0.008 (0.014)
FDI/GDP	-0.000 (0.001)	-0.000 (0.001)	-0.001 (0.001)	-0.000 (0.001)
Universities	-0.047** (0.023)	-0.047** (0.023)	-0.028 (0.031)	-0.028 (0.031)
Population Density	0.042** (0.018)	0.041** (0.017)	0.090*** (0.026)	0.088*** (0.026)
Built-up Area	0.038*** (0.011)	0.037*** (0.011)	0.075*** (0.017)	0.072*** (0.017)
International air routes	0.007 (0.007)	0.007 (0.007)	0.003 (0.010)	0.005 (0.0010)
Rule of law	0.038* (0.022)	0.039* (0.023)	0.053** (0.022)	0.054** (0.022)
Stock exchange	0.184*** (0.045)	0.185*** (0.045)	0.263*** (0.057)	0.264*** (0.056)
Period 2 (2015–2019)	—	-0.000 (0.020)	—	0.052** (0.024)
Period 3 (2020-2024)	—	0.030 (0.021)	—	0.087*** (0.028)
Constant	-0.584*** (0.208)	-0.538*** (0.164)	-1.141*** (0.324)	-1.160*** (0.324)
Observations	365	365	365	365
R-squared	0.258	0.263	0.346	0.358

OLS with heteroskedasticity-robust standard errors in parentheses. Sample: 365 city-period observations across 134 cities and 46 countries. Macroeconomic controls drawn from a lagged dataset. *** p < 0.01, ** p < 0.05, * p < 0.10.

Table 10. City-level determinants of VC activity: sub-period OLS estimates

Dependent Variable	Period 1 (2010-2014)		Period 2 (2015–2019)		Period 3 (2020-2024)	
	(1)	(2)	(3)	(4)	(5)	(6)
	VC Vol.	VC Trans.	VC Vol.	VC Trans.	VC Vol.	VC Trans.
GDP per capita	0.011 (0.013)	0.000 (0.011)	0.002 (0.013)	0.009 (0.025)	0.020 (0.023)	0.017 (0.034)
FDI/GDP	-0.000 (0.001)	-0.001 (0.001)	-0.002 (0.003)	-0.002 (0.005)	0.001 (0.004)	0.001 (0.006)
Universities	-0.040 (0.038)	-0.005 (0.018)	-0.021 (0.033)	-0.043 (0.052)	-0.077* (0.044)	-0.037 (0.066)
Population Density	0.028 (0.018)	0.040** (0.018)	0.024 (0.028)	0.092** (0.041)	0.066* (0.035)	0.114** (0.054)
Built-up Area	0.014 (0.008)	0.026*** (0.009)	0.034** (0.015)	0.078*** (0.027)	0.057** (0.022)	0.101*** (0.021)
International air routes	0.010 (0.010)	0.003 (0.009)	0.003 (0.009)	0.005 (0.018)	0.011 (0.014)	0.011 (0.021)
Rule of law	0.061 (0.056)	0.016 (0.020)	-0.003 (0.028)	0.049 (0.038)	0.048 (0.034)	0.080 (0.051)
Stock exchange	0.151** (0.063)	0.131*** (0.041)	0.128* (0.072)	0.293*** (0.096)	0.266*** (0.086)	0.352*** (0.124)
Constant	-0.349* (0.180)	-0.449* (0.223)	-0.362 (0.314)	-1.172** (0.525)	-0.942** (0.433)	-1.525** (0.678)
Observations	115	115	119	119	131	131
R-squared	0.261	0.370	0.199	0.395	0.358	0.407

OLS with heteroskedasticity-robust standard errors in parentheses. Period 1: 2010-2014 (N = 115); Period 2: 2015–2019 (N = 119); Period 3: 2020-2024 (N = 131). Macroeconomic controls drawn from a lagged dataset. *** p < 0.01, ** p < 0.05, * p < 0.10.

Table 11: Split-Sample Analysis by Foreign Investor Intensity

Dependent Variable	VC Volume		VC Transactions	
	(1)	(2)	(3)	(4)
	High foreign	Low foreign	High foreign	Low foreign
GDP per capita	-0.007 (0.008)	0.017 (0.017)	-0.018 (0.015)	0.007 (0.026)
FDI/GDP	-0.001 (0.001)	0.001 (0.007)	-0.001 (0.001)	-0.001 (0.010)
Universities	0.022 (0.015)	-0.110*** (0.040)	0.043* (0.023)	-0.083* (0.045)
Population Density	-0.001 (0.011)	0.049** (0.023)	0.017 (0.019)	0.125*** (0.034)
Built-up Area	0.007 (0.005)	0.059*** (0.019)	0.021** (0.008)	0.132*** (0.028)
International air routes	0.013** (0.006)	0.011 (0.014)	0.019** (0.010)	-0.004 (0.020)
Rule of law	0.0328** (0.014)	0.036 (0.039)	0.061** (0.024)	0.044 (0.038)
Stock exchange	0.053** (0.022)	0.270*** (0.070)	0.127*** (0.040)	0.328*** (0.082)
Period 2 (2015–2019)	0.007 (0.018)	-0.015 (0.035)	0.029 (0.028)	0.078* (0.040)
Period 3 (2020-2024)	0.021 (0.019)	0.046 (0.038)	0.051* (0.030)	0.134*** (0.048)
Constant	0.016 (0.117)	-0.804*** (0.286)	-0.126 (0.212)	-1.777*** (0.458)
Observations	177	175	177	175
R-squared	0.187	0.369	0.295	0.466

OLS with heteroskedasticity-robust standard errors in parentheses. The sample is split based on the sample average share of foreign investors across all observed deal-years for each city. *High foreign* (columns 1 and 3) includes cities at or above the sample median; *Low foreign* (columns 2 and 4) includes cities below the median. Macroeconomic controls drawn from a lagged dataset. *** p<0.01, ** p<0.05, * p<0.10.