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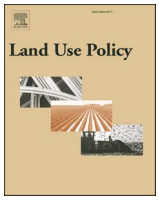

Land banking, land price and Ghana's informal land markets: A relational complexity approach

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ABSTRACT

Land banking practices have received little attention on how such practices shape informal land markets in developing countries. Drawing on a relational complexity framework, this study explores the land banking experience in Ghana's informal land markets. This research conducted semi-structured interviews with over thirty participants from four communities within the Ghanaian informal land market. The analysis revealed that developers are banking large tracts of land as capital investments through land dispositions. The absence of development on these banked lands has created a situation where developers are gradually influencing land prices. The analysis also shows that developers have created complex ongoing relationships with customary land managers. This coalition relationship has shaped land prices through the displacement of state-mediated statutory powers for land exchanges. The study recommends revisiting of stakeholder discussions on the enforcement and monitoring of the processes required under the Ghanaian Lands Commission guidelines for large-scale land transactions.

1. Introduction

The application of the concept of land banking (henceforth LB) varies depending on the regulations and objectives guiding its implementation in a given country (van der Krabben et al., 2020). These objectives encompass a wide range of goals, including shaping and regulating suburban communities (Stoebuck, 1986), revitalising blighted urban areas and brownfields (Tappendorf and Denzin, 2011), ensuring alignment with broader planning objectives (van der Krabben et al., 2020), and managing land prices affected by speculation (Carr and Smith, 1975; Davis, 1976). However, this study confines the discussion of LB to its impact on land prices.

Focusing on the land price perspective, Carr and Smith (1975) as well as Mcfadyen (1978) highlight the emergence of LB as a potential solution for controlling the rising prices of residential land. The idea was to mitigate these price increases by flooding the land market with publicly owned land banks during periods of soaring land prices (Carr and Smith, 1975; Yan et al., 2014). However, empirical evidence has challenged this notion, with studies indicating that the concept does not consistently lead to lower land prices (Du and Peiser, 2014; Tian and Ma, 2009). Several factors have been attributed to these failures, including government deviations from the core functions of LB (Du and Peiser, 2014), the inherent imperfections in land markets (Han et al., 2020), and the political decision to use LB for revenue generation or affordable housing initiatives (Gilbert, 2009). As a result, institutions like the World Bank (1993) and proponents of free markets (De Soto, 2000; Deininger, 2003) have discouraged excessive government involvement in land ownership through public LB.

Consequently, private LB has gained prominence in contemporary times. Similar to public LB, literature on private LB suggests rising land prices due to the lack of development on privately held land banks owned by real estate developers (Huang et al., 2015; Kania, 2014; Murray, 2020). Notably, existing research on both public and private LB has primarily examined these concepts within the framework of formal land markets (Carr and Smith, 1975; Du and Peiser, 2014; Murray, 2020; Yan et al., 2014). However, recent scholarship suggest the presence of informal land markets (henceforth ILMs) and their responsiveness to market forces (Antwi and Adams, 2003; Guedes et al., 2023). ILMs are vital sources of land for market participants in the Global South (Goyal et al., 2022).

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For instance, Herawati et al. (2020) documented the acquisition of 4000 ha of land for private LB by estate developer companies in Jakarta, Indonesia. Similarly, Fält (2019) reported the acquisition of over 900 ha of customary lands in Oyibi, Ghana, by private real estate developers for similar purposes. This trend is on the rise due to increasing urbanisation and urban sprawl in the Global South (Gutu Sakketa, 2023). Consequently, private property investment is on the rise, especially in the Global South (Grant, 2013; Roestamy et al., 2022; van Noorloos and Kloosterboer, 2018). In 2019, the property industry in Sub-Saharan Africa received a total investment of USD 421.96 million (Knight-Frank, 2022). Simultaneously, this growth has led to increased use of LB as a tool for securing land supply for future gated community developments in the sub-region (Ehwi et al., 2019).

Given the increasing LB activities within ILMs in Sub-Saharan Africa, it is crucial to understand the emergence of land prices resulting from estate developers' LB activities. Sasu et al. (2022) identified this critical gap in the LB literature, noting that prior research has predominantly focused on the influence of land banks on land prices within formal markets. To address this gap, this study explores how the interactions among LB actors, that is, landowners, developers, and states, shape land prices in the ILMs of Ghana.

Against this backdrop, the study formulates the question: *How are complex relationships of land bank actors shaping land prices of Ghana's informal land market?* The guiding question is crucial because land markets are socially constructed through relationships, rules, culture, and ways of thinking (Adams, 2008). Therefore, exploring LB and the price of land from the standpoint of market actors (landowners, land seekers and states) relationships is important for two primary reasons. First, land market dynamics are defined by the intricate interactions of market actors, rather than in isolation. Second, these relationships among market actors often exhibit complexity and nonlinearity (Wilson, 1998). This complexity arises from the challenge of categorising land market actors as uniform entities sharing a singular objective (Manson, 2001).

Therefore, this study uses relational complexity to unpack how associations among LB actors are shaping land prices in four Ghanaian ILM communities. Applying a relational complexity framing enables us to posit LB and the price of land based on the multiple complex social relationships existing between its land exchange actors. By doing this, the study highlights the social construction of land price outcomes as shaped by the associations of LB actors within ILMs. This is an attempt to increase scholarly attention to the socially constructed tenets affecting the land price outcomes of ILMs within LB. Furthermore, given the parallels between Ghana's ILM and those of other African countries like Namibia and Uganda (Chimhowu, 2019), the practical significance of the study's findings transcends the borders of Ghana.

The subsequent sections of the study follow this structure: The next section delves into the existing literature under three subheadings: (a) the generic meaning of LB and how the concept is contextualised within the study's boundaries (b) the dynamics of LB and land prices and (c) an overview of Ghana's ILMs. In section three, the study presents the underpinning conceptual framework. Section four discusses the research methods. Section five offers the study's findings and ensuing discussions. Lastly, the study is concluded in section six.

2. Literature review

As highlighted in the introduction, the literature review segment is divided into three parts. The first part clarifies the various meanings, practices, and domains associated with the concept of LB in different countries and disciplines. These clarifications enable us to contextualise the concept of LB within Ghana. Moreover, it aids in demonstrating how this context differs or aligns with other known practices in the LB literature. The second part presents literature on LB and the price of land. The third part provides insights into Ghana's ILM.

2.1. The concept of land banking: Meaning, domains and study's context

The exact meaning of LB has been difficult to craft (Harrison, 2007). This stems from the difficulty in presenting a one-size-fits-all definition that reflects the various domains that the concept has been put into by various countries and disciplines (Spit, 2018; van der Krabben et al., 2020). In demonstrating this difficulty of having a universal definition that fits all purpose, Sasu et al. (2022) accounted for fifteen definitions that span across various disciplines—economics, planning, agricultural science—and domains like urban regeneration or redevelopment, active planning for land use, and land mobility for farming practices. Despite these various definitions, LB as a concept is principally described in the extant literature as a public land management strategy that involves the acquisition of real property (mostly land) by public entities for future spatial plan design, servicing (land development), and onward disposition to the private sector in tandem with conditions that enhance set out public strategic objectives (Alexander, 2008; Davis, 1976; Spit, 2018).

Simply put, LB is when the government acquires urban fringe lands today, holds on to the acquired land for some period, and later disposes of the acquired land as serviced lots to the private sector for development based on covenants that reflect the overall strategic objective (spatial planning goals, affordable housing, specific projects etc.) of the government. Although the LB process of public land acquisitions, reservation, designing, and supplying of serviced or unserviced lots is a known common trait of some public land management tools like land pooling or land readjustments (see Kresse and van der Krabben, 2022; Mugisha et al., 2023), the two concepts are distinct. Whereas land pooling returns the remaining consolidated lands to the landowners (to develop or sell) after selling portions to recover costs (Lin, 2005), under LB, the landowners' ownership rights are terminated after the acquisition phase of the LB process (Louw, 2008).

In offering further clarity on the generic meaning of LB, van der Krabben et al. (2020) argued that public LB can be categorised as either a strategic public LB model or as a comprehensive public LB model. The tenets of the comprehensive public LB model suggest that public institutions take control of all aspects of the land development process—land acquisition, designing, land development, disposition, and management of public space. A classical case can be found in the Netherlands (see Buitelaar and Bregman, 2016; van der Krabben and Jacobs, 2013) and Finland (see Valtonen et al., 2017). The conclusion here is that public comprehensive LB goes beyond banking lands to meet a specific strategic objective, as the case is under strategic public LB.

Dwelling on the domains of strategic public LB, Fishman and Gross (1972) emphasised the variations in the use of LB across various borders or jurisdictions. Such variations have been linked to differences in political, social, economic, and legal frameworks of the LB concept worldwide (van der Krabben et al., 2020). For instance, in China, LB was initially proposed as a tool for controlling illegal leasing of rural agricultural lands for non-agricultural uses by rural economic managers or a village committee (Tian and Ma, 2009). However, given the fiscal advantages generated from the LB concept (Alexander, 2015; Tian and Ma, 2009), local governments are shifting their original motives to that of revenue generation ambitions (Du and Peiser, 2014).

The practices of LB in the United States suggest two concurrent domains to the concept under the strategic public LB model. First, the concept was used as a solution to the growing urban sprawling in the late 60 s (Alexander, 2015). The assumption is that once periphery lands are acquired and reserved ahead of development, local governments can dictate and control development in suburban communities (Stoebuck, 1986). Simultaneously, the LB concept was used to convert vacant, abandoned, foreclosed, and tax-delinquent properties occurring in the inner cities into productive assets (Alexander, 2015). In achieving this productive asset objective, these foreclosed properties are acquired by land bank programmes and banked for future use such as affordable housing projects or resold when property markets stabilise (Tappendorf and Denzin, 2011). Some notable LB programmes include, Cleveland, St.

Louis, Atlanta, and Louisville (Alexander, 2015; Tappendorf and Denzin, 2011). Despite the dual domains of public LB in the US, both Alexander (2015) and Fujii (2020) suggest that, in contemporary times, the nature and function of public LB in the US incline towards stabilising declining urban neighbourhoods and the renewal of brownfields.

In some developing countries (Colombia, Nigeria, Bangladesh, and Indonesia), the use of strategic public LB centres around affordable housing motives (Gilbert, 2009; Roestamy et al., 2022). The strategy is hinged on a theoretical assumption that if lands are acquired by the state (mostly through expropriations), the lack of speculative profit by the state will invariably lead to cheaper lands and by extension lead to affordable house prices. However, empirical evidence points to the contrary, leading to its failures in most developing countries (Gilbert, 2009).

From an agricultural science perspective, strategic public LB has been used together with land consolidation in resolving fragmented agricultural land ownership (van Dijk and Kopeva, 2006). The aim is to enhance land mobility in agricultural land markets. This practice is largely popular in western, central, and eastern Europe (see FAO, 2022; Gorgan and Hartvigsen, 2022). The outcomes of this practice is mix,with central (Czech Republic) and western European countries (France, Germany, and Netherland) recording most of the success stories (Gorgan and Hartvigsen, 2022; Hartvigsen et al., 2021).

Shifting attention from strategic public LB to comprehensive public LB, van der Krabben and Jacobs (2013, p. 774) describe comprehensive public LB as "public purchase, ownership and servicing of land and active planning for land use before the land is released for actual development to the private sector". The practice is widely noted for its ability to meet other broader planning goals like green development, reservation of land for affordable housing, and greenbelt protection (van der Krabben et al., 2020). Cost recovery for this model is drawn from the sale of building plots and land value capturing (Valtonen et al., 2017; van der Krabben and Jacobs, 2013). However, the subprime mortgage crisis of 2007 brought to the fore some financial risks associated with this model. The drop in demand for offered serviced plots impacted the cost recovery ambitions of Dutch municipalities (see Buitelaar, 2010; Buitelaar and Bregman, 2016; Valtonen et al., 2017).

On the private aspect, Evans (2004) notes the practice of LB by private developers. The practice involves the buying and storing of land in advance at locations where building development in the future is possible due to the potential economic development of that area (Kania, 2014). One of the motives behind such practices is the price growth potential of such bank land locations (Bao et al., 2012; Evans, 2004; Kania, 2014). In some instances, huge profit gains—from the sale of the banked lands either as serviced or unserviced lots— are recorded by private developers when planning restrictions are lifted or the rezoning of the banked land location is permitted (Murray, 2020; van der Krabben et al., 2020; White, 1986).

Based on the preceding discussions, it is evident that LB lacks a uniform definition and function. In this regard, context specificity is vital when exploring LB within specific jurisdictions. On that note, we conceptualise LB in this study as reflecting the acquisition of land by private and semi-public developers, mostly at the outer peripheries, and storing it for future land development and/or building development. The primary objective of using the LB concept by developers in Ghana is to guarantee reliable land supply when required for building development in the future. Additionally, it helps to reduce the challenges associated with land acquisition in areas with high demand for land, such as urban and inner parts of peri-urban areas. The next section presents literature on the dynamics of LB and the price of land.

2.2. Land banking and the price of land – an overview

Earlier studies on LB and the price of land theoretically advocated for the use of public LB as a land price control tool. This trend can be attributed to the growing desire of countries to emulate the success stories of the concept in Sweden (see Atmer, 1987) and the Netherlands in the 1970 s. Subsequently, Carr and Smith (1975) and Mcfadyen (1978) adopted the equilibrium theory in macroeconomics to shed light on the suitability or otherwise of the concept's ability to reduce residential land prices. For example, Carr and Smith (1975) note the lack of speculative profit in the prices of publicly supplied banked lands as one of the cardinal reasons why public banked lands can reduce land prices in Canada. From a similar theoretical perspective, flooding the land market with publicly reserved banked lands to create surpluses was considered a suitable strategy for reducing the prices of new lands (Blumenfeld, 1974).

However, recent empirical studies suggest mixed outcomes for the theory behind the concept's land price reduction abilities (Du and Peiser, 2014; Han et al., 2020). For instance, using the Generalised Method of Moments, Han et al. (2020) observed positively significant results on the intervention of land price outcomes through the use of urban public LB and floor area ratio in 286 prefectural Chinese cities. In contrast, Du and Peiser (2014) used a panel data model equation on provincial level data (from 1995 to 2010) to account for a rise in China's average land price for rural lands. They found hoarding of public banked lands to be the major reason behind such soaring land prices in rural areas. Xiaosong et al. (2008) also noted a similar outcome in the city of Nanjing.

In another dimension, Gilbert (2009) observed that land development costs were the reasons behind the failures to reduce land prices with public LB in Colombia. Interestingly, LB extends beyond the public sector (Louw, 2008). Kania (2014) highlights its popularity among private developers. Regarding land prices, Huang et al. (2015) provided that, despite the provision of lands by the government to aid in the reduction of housing prices in Hong Kong SAR, developers hoard supplied lands in their private land bank reservoir in anticipation of a better internal rate of return. This, in turn, drives up land prices in secondary land transactions.

Furthermore, Murray (2020) established that restraining planning policies in areas of high demand has resulted in higher land prices and subsequently placed developers with land banks in an advantageous position when planning restrictions have been lifted. However, Costello and Rowley (2010) dismissed planning restraint as contributing to rising land prices. This notwithstanding, the concept has proven to be true in some cases (Lees, 2018). In Sub-Saharan Africa, Mendie et al. (2017) reported a rise in land prices in Akwa Ibom State, Nigeria, and linked the phenomenon to the artificial shortage created through the limiting of land access to political cronies and the affluent in society. Similar observations have been made from publicly supplied urban and peri-urban banked lands in Ethiopia (Adam, 2020).

The ensuing discussion indicates the failures of public LB in reducing rising land prices. Also, it provides a deviation from the intended use of LB by private developers who use land banks as capital investments as opposed to its use as a land supply mechanism for building development. Despite the merits of these studies, little attention has been paid to the social construct propositions of land markets within an ILM standpoint in the LB and land price literature. More importantly, scholars have stressed the oversimplifications of the equilibrium model in understanding land markets given the imperfections of property markets (Adams, 2008) and the complexities of human behaviour as land market agents (Wilson, 1998). Furthermore, the characteristics of ILM are different from those of formal land markets (Guedes et al., 2023). Consequently, there is an opportunity to broaden the literature through the exploration of how LB actors' associations within Ghana's ILM dictate land prices. The next section provides an insight into these land markets.

2.3. Understanding Ghana's informal land markets

Before proceeding with the traits of Ghana's ILMs (Fig. 1), we contextualise the term 'ILMs' to detach it from other known ILMs. ILM has

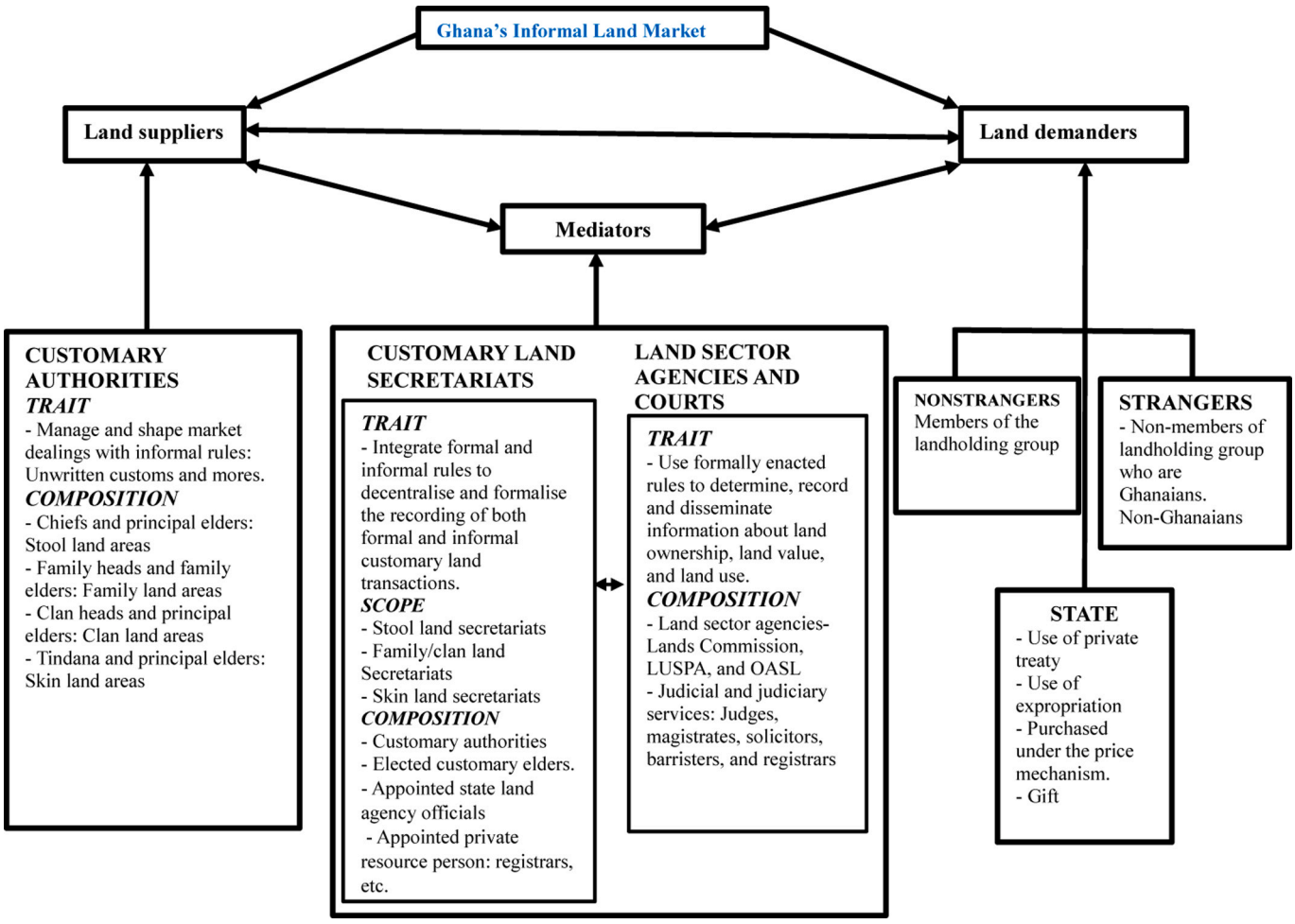

Fig. 1. An Illustration of Ghana's Informal Land Market (Source: Authors).

been described as land markets where land transactions are done in contravention of regulatory requirements for subdivisions of land and construction, lacks provision of public amenities, and, in most cases, property right protection is not a guarantee (Agheyisi, 2019; Goytia, 2019). For Goytia (2019), the scope of ILMs can be linked to three scenarios: (a) a scenario where rightful land owners transact land dealings at standards that do not reflect required infrastructure, lot sizes and other government requirements; (b) a scenario where vacant lands are illegally occupied by squatters and the payment of ground rent is collected by a leader with no ownership rights to the land; and (c) a situation where city centres are squatted upon and the reselling of plots, roofs of existing building, and overcrowding become a common feature.

Ghana's ILM as used in this study, does not reflect neither illegal ownership of land by grantors, nor illegal occupation of land for squatting purposes. In this study, ILM demonstrates the transaction of customary lands between customary land grantors (customary authorities and principal elders) of a particular landowning group and a grantee, without the: (a) provision of plot access and utilities and (b) adherence to government regulations formulated to improve land use planning, enhance information on land ownership, quantum of land transactions, land prices and overall property rights protection of purchasers (Boamah, 2013; Cobbinah and Aboagye, 2017).

These customary lands constitute approximately 80% of Ghana's land mass (Ehwi and Mawuli, 2021; Kidido and Biitir, 2022). Although there are few customary land transactions that exhibit formal land market attributes, as is the case in Asokore-Mampong[1] (see Akrofi and Whittal, 2011), customary land transactions are predominantly informal and thus display ILM traits (see Antwi, 2002; Antwi and Adams, 2003; Boamah, 2013; Quaye, 2013). The land suppliers for these customary land transactions (formal and informal) are customary authorities and principal elders who draw from informal institutions embedded in unwritten customs and mores to shape and regulate land market dealings (North, 1990). These customary authorities (used interchangeably with customary land managers in this study), who hold the lands as trustees and managers (Asiama, 2008) are either a chief[2] in the case of a stool land,[3] a family head in the case of family land, a clan head, or *'Tindana'/'Tengnyono'/'Tegatu'*[4]; as in the case of skin lands[5] (Ahmed et al.,

[1] A town found in the Asokore-Mampong Municipal Assembly in the Ashanti Region of Ghana.

[2] A person, who, hailing from the appropriate family and lineage, has been validly nominated, elected, or selected and enstooled, enskinned or installed as a chief or queen mother in accordance with the relevant customary law and usage (Article 277 of Ghana's 1992 constitution).

[3] In large parts of southern Ghana, customary land is referred to as stool land in reference to the carved wooden stool which is a traditional symbol of chieftainship and is believed to contain the souls of the ancestors (Ubink and Quan, 2008).

[4] Landowners by virtue of being first settlers. They act as ultimate authorities regarding lands in northern parts of Ghana (Kasanga, 1999).

[5] Customary lands in northern parts of Ghana. Name emanates from the sitting on hide by the traditional ruler (Ubink and Quan, 2008).

2018).

In contemporary Ghana, the consideration sum for a given land in such markets reflects prevailing land values (Kidido and Biitir, 2022). This is a departure from the customary payment of 'Kola money' or 'drink money[6]' as consideration for land exchange (Ubink and Amanor, 2008). The 'drink money' paid today is equivalent to existing market values (Boamah, 2013). As a result, land supply is primarily influenced by purchasing power, rather than membership in landholding groups, which by custom have the communal use right (usufruct) to vacant land (Akaateba et al., 2018). Consequently, the supply of land tends to favour wealthy individuals who are not necessarily members of the landholding group, undermining the land security of landholding group members (Sumbo, 2022).

Land demanders in these markets are either members of the customary landholding group, strangers (non-members), or the government. The members of the landholding group largely demand land for agricultural use, with a few demanding the same for residential purposes. On the other hand, strangers or non-members (Bukari and Kuusaana,2018) often demand land for residential, commercial (including farming), industrial, and mixed-use ventures, which favours wealthy individuals (strangers) due to the influence of their purchasing power on land supply. Strangers may include, but are not limited to, estate developers and individual developers. The nature of interest that can be held by strangers' ranges from short tenancies to leasehold interests not exceeding 99 years for a Ghanaian and 50 years for a foreigner (Section 10 of the Lands Act, 2020, Act 1036[7]). However, prior to the coming into effect of the Lands Act, 2020, family land areas were noted with freehold exchanges.

Furthermore, in addition to its regulatory roles, the state can sometimes serve as a market participate. The state can use its eminent domain powers to expropriate customary lands and pay appropriate compensation, provided the land acquired will be used in the public interest (Larbi et al., 2004). However, prompt and adequate compensation payments have been a challenge in such acquisitions (King and Sumbo, 2015). Although not frequent, there are instances of litigation related to public interest interpretation between the state and expropriated landowners. In line with such challenges, private treaties have become the preferred option for the state in recent times. It is also common for customary authorities to give land to the state as a gift for educational and/or industrial purposes.

As posited by North (1990), formal institutions are formal rules enacted to structure human interactions. In line with such formal rules, the state has enacted formal institutions—1992 Constitution of Ghana, the Land Act, 2020, the Land Use and Spatial Planning Act, 2016, and others— to regulate, mediate, and control land exchanges to ensure property rights protection and other objectives. These objectives are carried out by state land sector agencies— the Lands Commission (LC), the Land Use and Spatial Planning Authority (LUSPA), and the Office of the Administrator of Stool Lands (OASL). Others include the judicial and judicial services, which administer and adjudicate land-related disputes.

Ubink and Amanor (2008) argue that state land sector agencies have encountered challenges in safeguarding property rights by registering interests in customary land transactions (both formal and informal). These drawbacks, among other land administration-centred motives, led to a multi-donor funded land reform programme dubbed 'LAP' (Land Administration Project). Under LAP, state land sector agencies have decentralised their authority through the creation of customary land secretariats (Biitir and Nara, 2016; Biitir et al., 2017). These secretariats integrate both statutory formal rules and customary informal rules to regularise or formalise land transactions by recording and certifying acquired land rights from both formal and informal customary land transactions (Biitir et al., 2017). Although these customary land secretariats are purported to be run by a mix of customary heads and state-appointed officials (Chimhowu, 2019), the 1992 Constitution of Ghana states that customary authorities have the right to own and manage their lands according to customary informal provisions (Kidido and Biitir, 2022). Such legal hybridity tenets create a complex relationship between customary land managers, state-built environment agencies, and would-be land seekers. The next section frames LB actors' relational complexity to explore the central question guiding the study.

3. Relational complexity in land banking and the price of land

Various concepts of complexity have been used to explain complex systems (Fish and Hardy, 2015). However, in providing a more coherent understanding of what underpins a complexity theory, Manson (2001) outlined three major divisions of the various concepts of complexity from various disciplines: (a) algorithmic complexity, (b) deterministic complexity, and (c) aggregate complexity. Algorithmic complexity (AC) provides insights on how the complexity of a system lies in the difficulty faced in describing the system's characteristics (Delgado-Bonal, 2020). Deterministic complexity (DC) considers how the interaction of two or three variables creates largely stable systems prone to sudden discontinuities (de Haan, 2019; Manson, 2001). More specifically, DC explains the difficulty of manipulating variables to achieve a particular desired result (Fish and Hardy, 2015). However, both AC and DC align largely with complex mathematical problems and information theoretic concepts. Accordingly, their applicability to a social phenomenon is often seen as difficult (Manson, 2001). This is because lived experience and the meanings drawn from it go beyond algorithmic or mathematical expressions (Manson, 2001).

Furthermore, aggregate complexity focuses on how individual elements work together to create systems with complex behaviour. Central to the understanding of such complex systems is the relationship between entities. Relational complexity draws its concept from such relationships between entities. Consequently, the relational complexity approach explains how relationships between entities define a complex system. Moreover, the relationships among different actors are based on the complex nature of social interactions (Byrne and Callaghan, 2014; Fischer et al., 2017). We can call this relationship a nonlinear process in which power, relationships, and influence work (Byrne and Callaghan, 2014). For example, landowners, land seekers, and the government constitute the composition of a land market. However, these actors do not shape or define the land market as isolated entities. Instead, it is the interactions or relationships between these actors and their diverse motives that define the land market (Adams and Tiesdell, 2010). Therefore, the relational complexity theory is suitable for this study because it recognises the complex and multiple relationships between market actors associated with LB activities in Ghana's ILM. In this regard, this study explores whether these relationships determine or shape land prices.

This study uses relational complexity as a suitable frame because one sector relevant and known for such relational complexities is the land exchange processes in Ghana's ILMs (Amanor, 2008). The ownership traits of the land suppliers in these ILMs are often described as complex (Cobbinah et al., 2020). This originates from its communally owned traits as opposed to individual ownership. Consequently, customary authorities are accountable to the members of the landholding group (Akaateba et al., 2018). Yet, urban growth, scarcity of land, and land commodification have resulted in a changing face of such accountability functions (Akaateba, 2019) that are subsequently being replaced with a subtle 'I own it all-like characteristic' (Kleist, 2011; Ubink and Quan, 2008). Put simply, chiefs are granting the usufructuary rights of the members based on leniency as opposed to their inherent rights under

[6] Mireku et al. (2016) describe drink money as a moral token offering in some parts of Ghana, traditionally paid to chiefs (stools) in the southern part of Ghana, in the form of cash or a bottle of schnapps, to start negotiations on the terms of the lease. Kola or Kola money are used in the northern parts of Ghana.

[7] An enacted Act of parliament that revises and consolidates the over 66 land related statutes of Ghana into a single law.

communal ownership (Ubink and Amanor, 2008). The foregoing suggests a classic case of relational complexity between customary heads and principal elders managing such informal lands in their fiduciary capacity and members of the customary landholding group, who also have a right to customary freehold interest in their communally owned lands.

As explained by White (1986), private LB practices incur additional costs through property tax payment at the landholding phase, which favours larger industry players over smaller developers. Therefore, this phenomenon encourages larger firms to hold their bank land reservoirs as a capital investment rather than develop them when planning restrictions are lifted (Murray, 2020; White, 1986). However, customary authorities of the land-owning groups as well as members ascribe different visions (future developments of these banked lands to drive up economic activities) to such banked land reservoirs of developers. These differing motives between developers, customary authorities, and members of the landholding group present another case of relational complexity.

From the mediating arm of the land exchange process, Adams and Tiesdell (2010) espouse how actors such as planners and land administrators aid in constructing the land market through interventions drawn from the powers of the state. Planning scholars in Sub-Saharan Africa have highlighted the importance of land ownership and the management of lands in line with customary doctrines for ensuring the efficiency, fairness, and sustainability of state land market interventions (Cobbinah and Aboagye, 2017; Poku-Boansi, 2021). Boamah and Amoako (2019) argue that the dual land legal system in Ghana poses a dilemma since the state and customary authorities are sovereign keepers of their formal and informal laws respectively. In this regard, any land market intervention must be implemented on lands owned and administered by customary land managers. This phenomenon reveals another case of relational complexity.

Harmonising the complex relationships discussed between land bank actors in ILMs, this study provides that a relational complexity perspective can enhance our understanding of how land price patterns in ILMs are constructed from LB practices. This is because multiple relationships exist between the diverse land bank actors. Therefore, a relational complexity inclination suggests that land price outcomes may emerge from the relationships between the land bank actors. This is because a market economy is often deemed to be better placed to naturally enhance sustainable land prices. However, uneven LB practices do not always guarantee land price sustainability. Based on the foregoing premise, the guiding research question of the study is addressed by analysing land bank actors' relationships with one another based on prevailing market complexities on the ground. The next section operationalises this framing.

4. Research methods

This study is framed around exploring the complex relationship between land market actors of LB practices in ILMs in Ghana and how they shape land prices. To operationalise this framing, we situated this study in the interpretivist paradigm (Creswell and Poth, 2018). This is because land bank actors play varying roles, either as landowners, land seekers, or state land mediators. Hence, their subjective perspective on the phenomenon under exploration is driven by their different and unique experiences, often dictated by their separate and yet intertwined roles as actors in LB.

Within the interpretivist paradigm, we adopted a qualitative approach through a case study design, focusing on Ghana as a single case study. To this end, four ILM communities, namely, Awutu Breku, Dedesua, Teacher Mante, and Ningo-Prampram, were explored as a common case. These communities (see Fig. 2) were purposely selected based on the common private and semi-public LB activities found within their respective ILMs, and not for a comparative analysis (Yin, 2018).

The four communities were selected for two reasons. First, they offer us the opportunity to uncover how the common LB phenomenon between them confirms or runs counter to the supposition under the study's framing (Baxter and Jack, 2015). Second, consultation with land administrators and consultants at the LC head office revealed that these four communities have a prevalence of LB activities. The trend is occasioned by developers' desire to acquire lands from locations that are not too far off from Ghana's primate cities of Accra and Kumasi (Owusu-Ansah and O'Connor, 2009).

The definition of the study's case and its boundaries are critical to case study designs (Baxter and Jack, 2015; Creswell and Poth, 2018). In this study, we define the case (unit of analysis) as land price outcomes that originate from the associations of land bank actors. Also, our focus is on Ghana, and we use the definition of LB as the acquisition of land by private and semi-public developers, mostly at the outer peripheries, and storing it for future land development and/or building development. We excluded the notions of LB as a contagion to urban decay challenges (Small and Minner, 2023), and a tool for improving land mobility for agricultural land markets (see FAO, 2022; Gorgan and Hartvigsen, 2022). Based on these viewpoints and the flexibility of case study designs, we gleaned data from primary and secondary sources.

Primary data was obtained through interviews with thirty-three purposively selected participants (see Table 1). Selection of these participants was based on their knowledge and lived experience of the phenomenon. In obtaining the primary evidence, the lead researcher—who understands the cultural norms of the case study setting—visited the places of affiliation (see Table 1) of the study's targeted participants. This offered the opportunity to distribute an information sheet describing the study, its required participants, the interview procedure, participant rights if they chose to participate, data management measures, and a copy of the interview guide. The interview guide aimed to solicit participants' knowledge of the study's proposition and research question, as well as explore the existing market traits of the case study communities.

The first visit was to ascertain the willingness of the sampled participants to participate in the study. Follow-up visits established the agreed modalities (day, time, and preferred medium) for the interview session. We based participant adequacy on the data saturation point. Data saturation has been described as "a situation where additional interviews do not reveal any further insights, or themes of note" (Morris, 2015, p. 64).

Apart from the head of the landholding group, principal elder, local unit committee representative, and assemblyman from Dedesua, whose interview sessions were conducted in *Twi*[8]; all other interviews were in English. Interviews were conducted between March and August 2022; all interviews sessions did not exceed one hour. Although COVID-19 restrictions were relaxed at that time, as a precaution, interviews were conducted considering Ghana Health Service protocols. Interviews were recorded and complemented with notetaking while strictly adhering to the ethical conventions spelled out in the referenced information sheet.

Prior to transcribing the interviews, we translated the ones in *Twi* into English. The transcribed interviews were validated through member checking as an essential element of the data collection process aiding in enhancing data validation (Birt et al., 2016). The secondary data sources for the study include the land values of one ILM community, the Land Act, 2020 (Act 1036), the 1992 constitution of Ghana, and LC guidelines set aside to mediate large scale acquisitions. These datasets were obtained from the Eastern Regional LC. Relevant literature on LB and the price of land was furthered explored. These documents aided in the triangulation of interviewee responses.

We imported all interview transcriptions and documents into NVivo (March 2020 version) for analysis. After importing the datasets, we used

[8] A popular Ghanaian language spoken amongst the Akan tribe. According to the Rutgers School of Arts and Sciences (2022), 44% of Ghanaians speaks Twi as a first language and 80% of Ghanaians speak it as a second language.

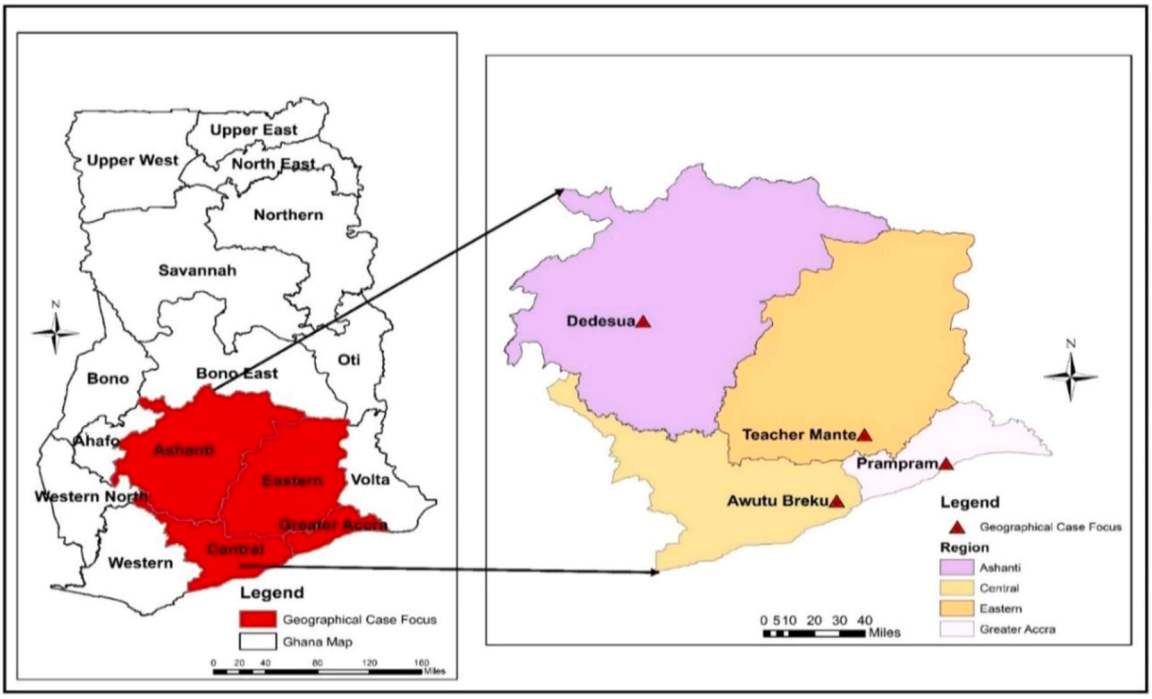

Fig. 2. Map of Ghana Showing the Four Informal Land Market Communities: (1) Awutu Breku; (2) Dedesua; (3) Prampram; and (4) Teacher Mante.

Table 1
Interview Participants' Affiliations and Roles.

SN	Professionals/ Stakeholders Purposely Sampled	Number	Role	Institutional Affiliation
1	Planners	4	Regional/ District Head	Land Use and Spatial Planning Authority
2	Valuers	4	Divisional Head	Land Valuation Division of Lands Commission
3	Land Administrators	4	Regional/ Divisional Head	Public and Vested Land Division of The Lands Commission
4	Academics	2	Researcher	University of Cape Coast, Kwame Nkrumah University of Science and Technology
5	Developers, Property Managers, Estate Managers	5	CEOs/ Sectional Heads	Devtraco Ghana, Koans Estate, State Housing Company, Blue Rose Company, Liznggod Real Estate
6	Customary Heads and Principal Elders	7	Managers of Customary Lands	Agyeiwaa Bota Stool, Twidan Family, Klatso Kunyu Clan, Asona Royal Family
7	Native Assemblymen and Unit Committee Representatives	5	Local Reps at Local Governance Level	Ayensuano District Assembly, Ningo-Prampram Municipal Assembly, Bosomtwi District Assembly, Awutu Senya West District Assembly
8	President Pensioners Association of Prampram	1	President	N/A
9	Consultant	1	Head, Special Project	Head Office, Lands Commission
	Total	**33**		

Source: Authors

NVivo to undertake a five-step thematic analytical process as prescribed by Morris (2015). This process entailed data familiarisation through the act of reading and re-reading the interview transcription, generating codes through coding, grouping codes into themes, reviewing initial themes, defining and naming themes, and producing the analytical report. Where necessary, verbatim quotes were provided to aid in the authentication of the interpretations made from the analysis (Fossey et al., 2002). The next section presents the findings and discussions.

5. Findings and discussions

In this section, we discuss the case study's four ILM communities to provide lived experiences concerning the study's question. We start by describing the characteristics of the ILMs based on information obtained in the interviews. The second section presents the findings and discussions of the four case study communities in line with the proposition from the study's framing. To recap, the proposition is set against the research question:

(a)How are complex relationships of market actors shaping land prices under land banking practices in Ghana's informal land markets?

5.1. Traits of case study's informal land market communities

5.1.1. Awutu Breku

The ILMs of Awutu Breku fall under the Awutu Senya West Municipal Assembly in the Central Region of Ghana. The community's land alienation features suggest family-owned lands managed and controlled by the Royal Abundam Family, the Anona Royal Family, the Twidan Family, and the Yeboah Afrang Family. As highlighted by customary land managers interviewees, land exchange is based on a customary doctrine that forbids the sale of lands. Therefore, any negotiated payment in lieu of the land exchange is considered 'drink money' (Mireku et al., 2016). Consequently, no receipts are provided as evidence of sales. However, land transactions are represented by a deed agreement. These agreements are currently limited to deeds of lease since freehold exchanges are prohibited. The exchanged lands do not undergo any form of land development prior to their trading. Subdivisions of land parcels are done without approved layout schemes as required under article 267

(3) of Ghana's 1992 constitution. This comes as no surprise since such traits are widely reported in the Global South (see Goytia, 2019; Goyal, 2022).

On the demand side, we find characteristics that suggest three sets of land seekers. The first set represents real estate developers who demand large lands, often 15 ha or more, for LB purposes. The second group includes individual migrants from the country's capital, Accra, seeking land mainly for the construction of residential properties or speculative motives. This second group acquires parcel lots that range from 0.09 to 0.40 of a hectare. The third group are members of the landholding group and a few migrants who demand land for farming purposes. The first and second groups constitute the majority of land seekers (Kuusaana and Eledi, 2015).

5.1.2. Dedesua

Dedesua is a rural community under the Bosumtwi District Assembly of the Ashanti Region. The characteristics of land ownership and dispositions in Dedesua differ significantly from those of Awutu Breku. Since Dedesua forms part of the Asante State, lands within this community are deemed stool lands, and are directly controlled by the Asantehene (King of the Asantes). Land sector agency interview findings suggest that land alienation is done by the Agyeiwaa Bota Stool, represented by its Oheneyere (wife of the chief), and confirmed by the Asantehene. The customary doctrine of lands not being for sale is upheld in this community (Mireku et al., 2016). Land seekers can only acquire leasehold interests. The responses we got suggest that the constitutional rules that restrict acquisition of a freehold interest in stool land areas are also based on a customary saying that chiefs are transient, but the stool remains in perpetuity. Therefore, stool property cannot be given away forever.

Unlike Awutu Breku, the initial step of documenting land exchanges in Dedesua involves the provision of an allocation note (Mireku et al., 2016). The second step involves the preparation of a leasehold agreement through the customary land secretariat of the Asantehene. This second step herein requires the payment of a third of the prevailing market value of the land. Due to this payment requirement, most lessees skip the required second step. Land demand traits are consistent with discussions of Awutu Breku and support Kidido and Biitir's (2022) assertion that the majority of land exchanges in Ghana's ILMs are in the hands of strangers.

5.1.3. Prampram

Prampram is the capital town of the Ningo-Prampram Municipal Assembly. According to the interviewed family heads, clan elders and officers from the Greater Accra LC, land supply was hitherto granted by the chief and principal elders of Prampram. However, after a series of legal land contests by multiple families and clans against the stool, lands in Prampram are now allocated by family and clan heads. This finding agrees with the earlier work of Grant et al. (2019). Indeed, such customary land ownership contestation is not limited to Prampram alone but across sections of Ghana (see Kansanga et al., 2019) and Africa (see Kalabamu, 2019).

The interview responses from state land sector agencies suggest that portions of Prampram's ILMs are under the direct control of the state, given their state land status. These lands are reserved for future market-led developments like smart or new cities with economic growth-centred motives. This aligns with Korah et al.'s (2020) observation of the public land characteristics of Prampram. The land exchange process, the documentation involved, and the nature of land purchasers illustrated mirror what was found in Awutu Breku.

5.1.4. Teacher Mante

Teacher Mante is a rural community located along the Accra-Kumasi highway, and it falls under the political administration of the Ayensuano District Assembly. Interviewees from the Eastern regional LC provide that the allocation of lands is in the hands of various families—Quansah Family, Mankato, and Asona Royal Family— given the community's family land trait. The land exchange process reflects prior findings in Awutu Breku.

In summary, the study reveals that land banks are not only found in rural areas, as suggested by Harrison (2007), but also in peri urban areas along the urban-rural continuum of Ghana. This implies that developers' decisions on land bank locations are not limited to rural areas, as is often justified under the abstraction of bid rent (Alonso, 1960). In addition, despite the market's informal nature, primary evidence corresponds to the market responsiveness of ILMs (Antwi and Adams, 2003; Flower, 2018).

5.2. Emerging land price pattern from complex relationship of land bank actors—roles of market actors

5.2.1. Relationships of market actors in shaping land prices under land banking practices

Given the complex relationship between market actors and their impact on land prices under LB in the case study communities, we found three interconnected issues: (a) the alliance of market actors to benefit mutually from each other; (b) the change of LB into land hoarding; and (c) the development of oligopolistic traits by developers.

Regarding the alliance of market actors, our interview findings revealed that security of tenure concerns and land contestations among customary land managers have often led to hesitations in purchasing customary lands (Ghebru and Lambrecht, 2017). Owing to these hesitations, customary land managers are willing to grant large tracts of land to estate developers for their LB motives. In some instances, customary land managers approach developers to inform them of their land availability. Generally, lands within catchment areas of estate developers are relatively safe (Ehwi et al., 2019). Consequently, the motivation behind customary land managers' willingness is to utilise the presence of developers' banked lands as a tool to address the security of land tenure concerns of other potential buyers. Furthermore, customary land managers' eagerness to exchange lands with developers offers developers the advantage of acquiring large tracts of land at cheap prices and with reasonable payment plans. Simultaneously, the presence of developers' land banks offers customary land managers the opportunity to increase land prices on their remaining lands. This is based on the renewed security of tenure assurance. In this regard, a family head remarked:

> *"…the estate developers acquire over 100 acres and pay for about 5 acres on the spot. The balance for the rest is paid in instalments… we don't complain, we know their mounted sign board(signpost) on their banked lands will attract customers for us to increase prices of our remaining lands"* (Interview, Prampram, June 15, 2022).

As further evidence, an estate developer opined:

> *"People are apprehensive to acquire land that is likely to be sold to more than one person. Our land banks give them some form of assurance that the area is devoid of land litigations…. The notion is that, if there were land guards[9] or multiple sales related concerns, Blue Rose would have walked away; family heads take advantage of that to demand outrageous prices… The irony is that the place is largely farmlands"* (Interview, Awutu Breku, April 29, 2022).

In respect of the latter quote, land values (see Table 2) of Teacher Mante recorded in ledgers for assessing stamp duty at the Eastern Regional LC portrayed a sharp land price upsurge. For instance, during the first four years (2017–2021) of LB activities at Teacher Mante, land values increased by 157%. However, in a similar four-year time frame

[9] For Badong (2009), land guards are individuals or a group of young people who use illegal means to protect land and landed properties as a service in exchange for cash or other forms of payment.

Table 2
Land Values of Teacher Mante Pre and Post Developer 'A's Land Banking Activities.

Year	Average land value per plot (0.08 hectare) for residential purposes in Ghana cedis	Prevailing land use patterns	Nature of interest	Land Value Index	Pre and post land banking activities of Developer A under Table 3
2012	9000.00	Agricultural Land use	Freehold interest	100	**Pre land banking activities**
2013	9000.00	Agricultural Land use	Freehold interest	100	
2014	11,000.00	Agricultural Land use	Freehold interest	122	
2015	11,000.00	Agricultural Land use	Freehold interest	122	
2016	12,500.00	Agricultural Land use	Freehold interest	139	
2017	14,000.00	Agricultural Land use	Freehold interest	156	**Post land banking activities**
2018	20,000.00	Agricultural Land use	Freehold interest	222	
2019	23,500.00	Predominantly Agricultural land use with minor residential uses	Freehold Interest	261	
2020	27,500.00	Predominantly agricultural land use with minor residential uses	Freehold	306	
2021	36,000.00	Predominantly agricultural land use with minor residential uses	*Leasehold interest	400	
2022	43,500	Predominantly agricultural land use with minor residential uses	*Leasehold Interest	483	

Source: Eastern Regional Land Valuation Division of the Lands Commission Dataset (2022)
Bank of Ghana Daily Interbank FX Rates of US$1 = GH₵7.4287 as of 5th May 2022
*Following the passing of the Lands Act on 23rd December 2020, grantors were prohibited from granting freehold interests.

without such LB activities (2012–2016), a 28% increment was recorded. Although the sharp rise in land prices can be linked to a general growth in demand, the indirect impact of LB on demand increase cannot be ignored. As typified by land sector agencies interviewees, developers' history of gated community-esque developments fuels the perception that such banked lands will be developed into something similar. These perceptions, together with the social prestige attached to staying closer to such estates, pull individuals and speculators to those areas to compete for the remaining unbanked lands. The competition serves as a conduit for customary managers to demand higher prices. We could not attain consistent time series data on land values from the other three regions of the remaining three communities. This data challenge affirms the non-availability of consistent property price time series data in developing economies (Owusu-Ansah et al., 2020).

The study provides evidence of market actors leveraging their alliance, as customary land managers grant their remaining unbanked lands at prices prescribed by developers. A sizeable number of state land sector officials and native interviewees provide that, for developers to meet their targeted group for future dispositions of their banked land, the developers (mainly private ones) align with customary land managers to influence the asking prices of their remaining customary lands. The aim is to ensure that lands within the catchment area of their banked lands are limited to those they target. Accordingly, a planner commented that:

> *"In some cases, they[developers] influence the families to sell their remaining lands at higher prices, so that the same calibre of people [target group] can get access to those lands around their bank lands. The intention is that, if you allow everyone in, developers' target clients will lose interest in acquiring lands provided by the developer"* (Interview, Teacher Mante, June 7, 2022).

The foregoing implies that land prices in these communities are not naturally dictated by market forces. Instead, the creation of an alliance between developers and customary landowners based on mutual benefits is driving the price of land. This situation, according to the native interviewees (excluding those from Prampram), is not favourable since they have to move to other nieghbouring communities in search of cheaper lands for farming or resort to alternative livelihoods. Given that agriculture employs a sizeable number of youth in these communities, this condition could widen the youth unemployment gap in these communities.

Aside from the issue of market actors' alliances, we identified the gradual changing of LB into land hoarding by developers as another major finding. Kania (2014) describes the essence of private LB as the ability to supply lands for future construction operations in times of need. Contrary to Kania's claim, we found that banked lands were barely developed despite years of acquisitions. Instead, portions of the acquired lands are sold as lots to individual developers as secondary transactions, while the majority are reserved as capital investments. Table 3 provides further insights into the development status of sampled developers' banked lands.

In the view of the interviewees from the state land sector agencies, such hoarding practices create artificial shortages. Developers' rebuttal provided that they hold on to their bank lands and sell them when the economics are right because that model is more profitable as opposed to building development. They further established that lands are alienated as service plots as opposed to raw or agricultural lands. In their own words such land transformation constitutes some form of development. This finding of hoarding of banked lands by developers as capital investment correlates with the LB and the price of land literature and appears to be a global attribute of real estate developers given similar findings in mainland China, Hong Kong SAR, Australia, and the UK, respectively (Du and Peiser, 2014; Huang et al., 2015; Hui et al., 2014; Murray, 2020; White, 1986). In the context of the case study, this implies that banked lands are being used as investments because LB is slowly changing into land hoarding. This is making land prices go up even more because of the artificial shortages of land caused by these deviations.

Another dimension of the land hoarding occurrence is the reaction of customary land managers to such LB deviations. Findings from interviews with members of the landholding groups from family land communities suggest that family heads and principal elders do not protest such deviations on the part of developers. The major reason for their silence was the monetary benefit made from such developer-led secondary land transactions through the receipt of consent fees. They further provided that, although they are shareholders in their communally held lands as per custom, they are excluded from such monetary benefits. This finding substantiates the reinterpretation of communally held lands and customary land managers' unaccountability tenets of customary lands, often linked to land commodification (Akaateba, 2019). Although customary land managers do not typically protest, some family heads have resorted to the courts to litigate the release of portions of their lands on the grounds of land hoarding practices as opposed to banking lands for estate development. Other justifications for such court actions include bad faith negotiations during the land acquisition phase. While the use of the court system improves trust in the judicial system, such land litigations have the potential to undermine confidence in Ghana's ILM communities. The foregoing points to a 'love-hate' complex market actor relationship that exists between developers and customary land managers.

Table 3
Developers Land Bank Reservoirs and Their Development Status.

Developer	Category	Location of banked land	Region	Year of acquisition	Size of banked land (hectares)	Status of banked lands post-acquisition
Developer A	Private Developer	Teacher Mante	Eastern	2017	907.40	Undeveloped; currently being leased as partial service plots.
		Okanta	Eastern	2013	159.55	Undeveloped
		Kuntunse	Eastern	2008	170.38	45% developed into a gated community; remaining lands are currently being leased as service plots.
Developer B	Private Developer	Muete	Greater Accra	2011	2428.16	Undeveloped
		Ningo Prampram	Greater Accra	2012	43.71	Currently being assigned as service plots to interested individuals
Developer C	Quasi-Public Developer	Dedesua	Ashanti	2008	48.56	Undeveloped
		Atwima Koforidua	Ashanti	2017	8.09	8% developed into a gated estate, the remaining lands are undeveloped
Developer D	Private	Awutu Breku	Central	2014	204.76	Currently being leased as partial serviced plots

Source: Authors' field data (2022)

We identified the attainment of oligopolistic traits among developers as another major complex market actor relationship shaping land prices. Cobbinah and Aboagye (2017) pointed out that customary land managers assume roles that enable them to set land prices without recourse to a formal institutional framework. However, findings from the present study suggest that such price fixing roles are gradually diminishing. Our interviews revealed that, due to the size of developers' land banks, developers have started exhibiting oligopolistic traits and are now able to determine lot prices through secondary transactions such as sub-leases and assignments. This phenomenon indirectly turns customary land managers into price takers because they adjust land prices in response to prices of developers' land banks. This occurrence is more prevalent in the family land areas. Perhaps this can be attributed to restraints on the alienation of freehold interests in stool land communities. Section 9(2) of Ghana's Lands Act, (2020) has extended such restrictions to family land areas. However, it does not have a retrospective effect, implying that such indirect price making characteristics are forever earned by estate developers except their foreign counterparts, who are barred from holding freehold interest.

The issue of oligopolistic traits among developers is further complicated by the prevalence of land encroachments by some customary land managers. For Kidido and Biitir (2022), when virgin or agricultural lands are available, newly installed customary heads rarely vent their attention on old purchasers. However, the reverse holds when such new customary heads commence reign with little or no lands to alienate. In congruence with Kidido and Biitir's (2022) claim, all interviewed developers submit that because of rising land prices and the fact that predecessors of customary land managers have sold out most of the customary lands, customary land managers focus their attention on developers' banked lands. They further added that such incidences often led to the encroachment of portions of their banked lands on their blindside. These encroachments align with an earlier work by Cobbinah et al. (2020). Estate developers are now incurring costs to safeguard the boundaries of their banked lands by constructing fence walls as a mitigating measure. Those with large land bank reservoirs who find this expensive resort to pillaring (see Fig. 3).

Under such safeguarding measures, the land reservation or holding phase for the LB process in the case study communities is becoming expensive for developers. We argue that such occurrences have the tendency to add to the prevailing rising land prices in the case study communities. This is because both land acquisition and their corresponding holding costs have been established as contributing factors for land price outcomes under both public and private LB practices (Gilbert, 2009; Needham, 1992;White, 1986).

To illustrate another intricate relationship within the market, the guidelines established by LC for large-scale land acquisitions faced challenges when put into practice. These guidelines were designed to achieve several goals: preventing excessive land hoarding and speculation, preserving the land rights of local communities, and ensuring that legitimate investors benefited from secure property rights. However, the actual implementation of these guidelines proved to be problematic. Document review and interview findings provide that the high point of the guideline requires the holding of a local level forum by the would-be investor to present investment proposals with justifications for the extent of land required from the land-owning community. The responses from the LC revealed implementation difficulties linked to the noncompliance of such guidelines by customary land managers, despite their involvement in the formulation process. Three dominant reasons accounted for this occurrence: (a) the principal powers to hold and dispose of lands being in the hands of customary authorities; (b) customary authorities interpreting such enactments as undermining their land ownership authority; and (c) the economic interests of landowners overshadowing the intended interests of the state. This finding corroborates state land market-mediated implementation challenges often linked to the nature of the land ownership system (Cobbinah et al., 2020; Nnamani et al., 2023). As a result of such displaced land market mitigating roles, controlling land hoarding activities is lacking in the study communities. This situation implies that state land sector agencies will not be able to investigate many large-scale transactions for LB. This account enhances the prevalence of developers' land hoarding activities under the disguise of LB in the case study communities.

Fig. 3. Pillars Safeguarding the Boundaries of a Developer's Land Bank. Source: Authors' field data (2022).

In sum, this study submits that a nonlinear, complex relationship between market actors is likely to shape land market prices under LB practices. In line with this submission, we established, in this case study application, market actors' relationships, which confirms the study's framing. However, comparing established Ghanaian informal land

market traits from the literature with the case study application revealed some levels of contradiction to these known traits. In the LB context, for example, short-lived alliances between market actors, the shift from LB for building development to land hoarding, and developers' rise to oligopoly status all show how the complex relationships between market entities have indirectly affected land prices. In this case study application (Fig. 4), customary land managers acting in accordance with the dictates of economic rationality have implicitly started drawing from prevailing land prices for developers' offered lands to price their available unbanked lands. The implication here is that customary managers are gradually becoming price takers as opposed to hitherto price makers. On the other hand, the lack of cooperation from customary land managers in the implementation of state formulated large scale acquisition guidelines aimed at limiting land hoarding and land speculation has displaced the state's land market mediating objective. Such displacement is enhancing land hoarding further. Given the generic close connections between land hoarding and soaring land price through artificial shortages, the state's difficulty in controlling land hoarding is worsening the soaring land price in the case study communities. Contrastively, available literature on Ghana's informal land markets largely limits its land supplies to solely customary land managers. However, this case study application demonstrates two concurrent land suppliers: customary land managers and estate developers.

6. Conclusion

The study explored how relationships among land bank actors are shaping land prices in Ghana's ILMs. Against this backdrop, the study drew from the concept of relational complexity to address the question: How are the complex relationships of land bank actors shaping the land prices of Ghana's informal land markets? Reflective of the general trend in existing literature on LB and the price of land, the case study application revealed that LB praxes are associated with rising land prices. However, the shaping of the resultant land prices from the ongoing LB practices is distinctive in terms of its market actor relationships.

The findings suggest an initial alliance of market actors (customary land managers and estate developers) aimed at satisfying their diverse but interrelated motives. Through this alliance, customary authorities can alleviate prospective land purchasers' security of tenure concerns. This security of tenure assurance led to an increase in demand for unbanked lands of customary authorities. On the other hand, developers acquire large tracts of land from customary land managers at cheaper and more flexible payment terms. Furthermore, developers influence customary land managers to grant their remaining lands at prices that can only be met by those in a similar bracket as their targeted group.

As a sign of prevailing market complexities, the study reveals that these alliances are short-lived. This is informed by land bankers, who are indirectly becoming price makers due to the quantum of land they hold as capital investments. This newly found price determining trait of land bankers, coupled with the situation where fewer lands are in the hands of customary land managers, has instigated the encroachment of estate developers' land bank reserves by customary land managers. In some instances, legal efforts to reclaim portions of these banked lands have been initiated by some customary land managers. Complicating matters further, formulated guidelines to curb land hoarding and protect investor property rights sanctioned in consultation with customary land managers are not yielding the desired outcome in the case study communities. The nature of land ownership, coupled with the economic interests of both customary land managers and developers, has created a situation where both parties ignore their statutory roles in the land exchange processes, further complicating matters.

The relational complexity highlights how customary land managers and developers have shaped land price outcomes through the displacement of state-mediated market forces' directing roles (controlling of land hoarding). It further shows how the oligopolistic traits of developers mean that who gets access to land and at what price is largely becoming the preserve of developers. Consequently, in the family land communities, the customary right of alienating lands and at what price

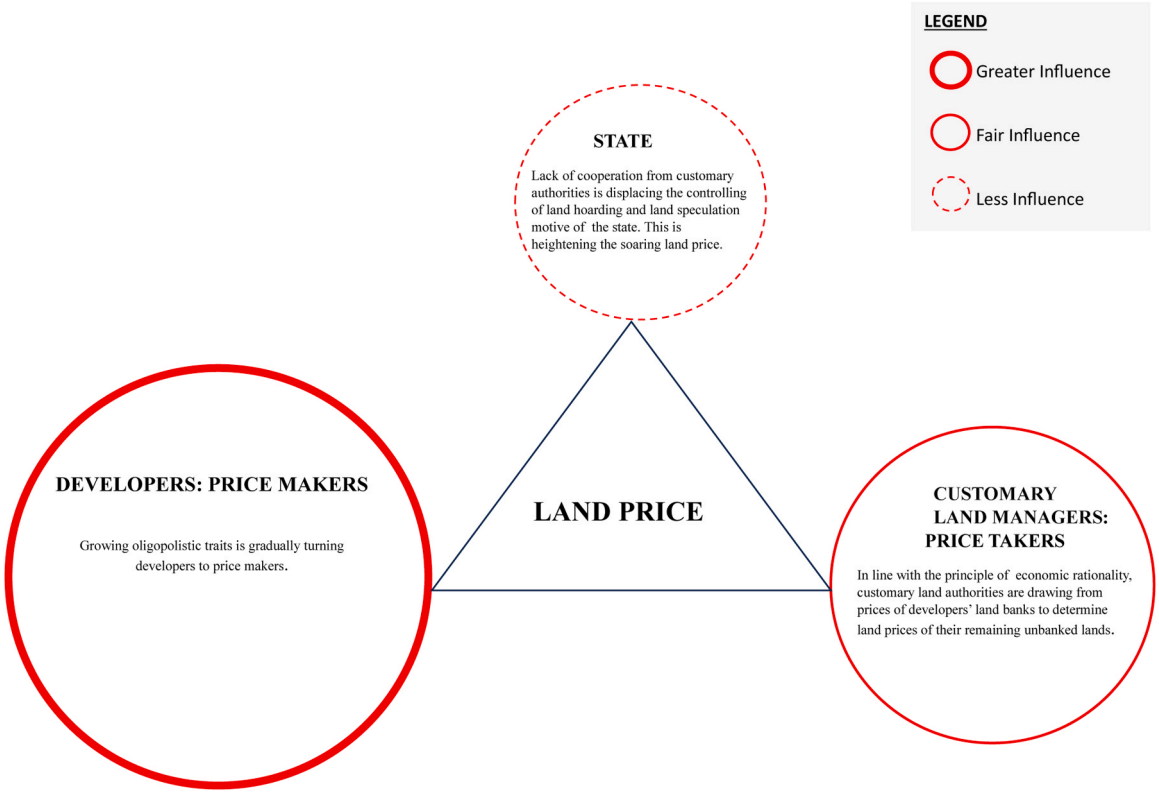

Fig. 4. Land Bank Actors' Influence on Prevailing Land Prices based on Market Actor Complex Relationships.

(drink money) held by family heads are indirectly being displaced by land bankers. This is the ongoing tension manifested in the form of legal actions by family heads, revealing how the motives of market actors vary in the case study communities. That is, the profit-seeking motives of developers and customary land managers' money-making opportunities compete with state actors' desire to mediate land transactions.

As a policy implication, the current trend of LB and the prices of land in the case study communities show that it will continue to be hard for state land sector agencies to effectively mediate large-scale acquisitions in the LB context without considering all of the complex, nonlinear parts of the phenomenon. Using only the hegemonic powers of the state to control the actions of market actors has often failed to find the interconnected issues that are needed to control the actions of land market actors: combining regulation with market-based incentives to stimulate market actions; involving customary land managers as partners in a policy after the policy is made; and exploring to find out which customary land managers are likely to be hostile or share in latent opposition. The study argues that, if we are to appreciate LB and the price of land in Sub-Saharan Africa, attention needs to be paid to its complex land tenure and the accompanying complex relationships among land bank actors.

Based on these findings, we recommend further customary authority consultations on the LC large scale acquisition guidelines as the first step. The consultations should be focused on market-based reward schemes that will encourage adherence to the expected roles of customary land managers at the acquisition stages and beyond. To achieve this, all complex nonlinearities of the LB phenomenon should be considered in further re-engagements. As a recommendation for further research, we see the usefulness of examining the established themes as constructs for a quantitative study. This will aid in testing the findings on a larger Ghanaian ILM population.

CRediT authorship contribution statement

Alexander Sasu: Conceptualization, Methodology, Investigations, Data curation, formal Writing – original draft. **Arshad Javed:** Writing – review & editing, Validation, Supervision. **Muhammad Imran:** Writing – review & editing, Validation, Supervision. **Graham Squires:** Writing – review & editing, Validation, Supervision.

Declaration of Competing Interest

The authors declare no competing interest.

Data Availability

Data will be made available on request.

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