

# Seeding Growth: Unlocking the Potential of Agricultural Commodity Exchanges in Sub-Saharan Africa

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# Seeding Growth: Unlocking the Potential of Agricultural Commodity Exchanges in Sub-Saharan Africa

# Dirk Kohnert 1

Cartoon: 'Pork Stock Exchange'



Source: © Mark Lynch<sup>2</sup>, fineartamerica, 3 September 2024

Abstract: The establishment of commodity exchanges offers significant advantages for low-income, agriculturally dependent countries seeking to enhance export performance. A notable example is the Ethiopian Commodity Exchange (ECX), which contributed to a substantial increase in coffee exports, benefiting producers through expanded export volumes and diversified market access. Similarly, in May 2025, Côte d'Ivoire launched West Africa's first agricultural commodities exchange, supported by the Regional Stock Exchange (BRVM)—the common securities market for the eight member states of the West African Economic and Monetary Union (WAEMU). Initially, this exchange lists cashew nuts, kola nuts, and maize, with plans to expand trading to cocoa and approximately twenty additional commodities in the future. Africa currently hosts 38 stock exchanges across 29 national capital markets, 22 of which are members of the African Securities Exchanges Association (ASEA). Among these, 12 countries facilitate agricultural commodity trading: South Africa, Nigeria, Kenya, Côte d'Ivoire, Ethiopia, Malawi, Zambia, Zimbabwe, Tanzania, Mozambique, Rwanda, and Uganda. Commodity exchanges in sub-Saharan Africa (SSA) play a pivotal role in strengthening market structures by improving market access, mitigating price volatility, and integrating smallholder farmers into formal economic systems. Despite structural challenges—such as infrastructural deficits and capacity-building needs—these platforms demonstrate considerable potential for fostering sustainable agricultural development in the region. Empirical evidence suggests that while market capitalization negatively impacts agricultural growth, the value of traded stocks exerts a positive influence. Consequently, governments in African emerging economies should prioritize capital market expansion to stimulate growth through agricultural value addition. Policy frameworks that bolster investor confidence via institutional strengthening and stock market development are essential. However, it

**Keywords**: Commodities exchange, LDC's, cash crops, agriculture, growth, Sub-Saharan Africa, coffee, cacao, cashew nuts, kola nuts, maize, ASEA, South Africa, Nigeria, Kenya, Côte d'Ivoire, Ethiopia, market capitalization, stock market performance, risk transmission, exchange rate, market efficiency, smallholder farmers, institutional economics, price discovery

**JEL-Code**: D23, D24, D44, D53, D84, E02, N17, N27, N57, O13, Q13, Z13

<sup>2</sup> Fn 2, see page two.

<sup>&</sup>lt;sup>1</sup> Dirk Kohnert, associated expert, GIGA-Institute for African Affairs, Hamburg. Draft: 3 July 2025

# 1. Introduction

**Cartoon 2:** *Africa: Fast finance for the new frontier of food* 



Source: © Dominic O'Neill, Euromoney, September 17, 2013

Agricultural commodity exchange in Sub-Saharan Africa (SSA) is on the rise<sup>3</sup>. From informal retailers to supermarket chains, Africa's baby boomers are fuelling a consumer boom that is spilling over to agribusiness (O'Neill, 2013). A commodity exchange is a marketplace where different commodities are traded, including financial instruments, metals, agricultural products, and energy resources. These exchanges offer methods for price discovery as well as funding liquidity to make it easier to buy and sell commodities. It is a virtual marketplace where commodities like oil, gold, wheat, and even electricity are traded, in place of the local markets where e.g. fruits, peppers, and vegetables are sold. Commodity exchanges function as a regulated platform where a network of buyers and sellers come together to trade standardized contracts. In principle, these contracts specify the underlying commodity's quantity, quality, and delivery terms. Through transparent trading mechanisms, prices are determined based on supply and demand dynamics, fostering fair and efficient markets. These contracts come in various forms, but the most common are futures contracts. These essentially lock in a price for a specific commodity at a future date. This helps businesses manage risk and ensure they have the resources they need at a predictable price (Cowrywise, 2025).

On May 28, 2025, Ivory Coast opened an agricultural commodities exchange (BMPA CI), the first in French West Africa. For the time being, only cashew nuts, kola nuts, and corn are listed on this new market. Eventually, cocoa and nearly twenty other products are expected to be traded there (Laurent, 2025). Abidjan was supported by the Regional Stock Exchange (BRVM), which serves as a common stock market for the eight member countries of the West African Economic and Monetary Union (WAEMU / UEMOA). Several African countries, including Côte d'Ivoire, are among the world leaders in various agricultural commodities, e.g. cocoa, cashew nuts, cola, coffee, corn, tea, cotton, palm nuts. This wealth is still not

<sup>&</sup>lt;sup>3</sup> See cartoon on the title page: Mark Lynch is a renowned cartoonist known for his sharp wit, distinctive style, and keen social commentary. With a career spanning over two decades, Lynch has contributed to major publications, including The New Yorker, The Washington Post, and Punch, earning acclaim for his clever humour and insightful satire. His work often blends political satire, observational comedy, and absurdist humour, making him a favourite among readers who appreciate both visual and intellectual punchlines. Lynch has also published several collections of his cartoons and illustrated books, further cementing his reputation in the world of editorial and gag cartooning. Beyond print, Lynch has ventured into digital media, creating animated shorts and webcomics that expand his reach to new audiences. His unique perspective and timeless humour continue to influence aspiring cartoonists worldwide (deepseek, 7 June 2025).

sufficiently benefiting the populations and many African economies are struggling to convert it into development, among others by agricultural commodities exchange (Laurent, 2025).

There are 38 exchanges in Africa, representing 29 nations' capital markets. 22 of the 38 stock exchanges in Africa are members of the African Securities Exchanges Association (ASEA). The Egyptian Exchange (EGX), founded in 1883, is the oldest stock exchange in Africa. One of the oldest bourses (exchanges) on the continent is the Casablanca Stock Exchange of Morocco, founded in 1929 and the JSE Limited in 1887 and Nairobi Securities Exchange in Kenya founded in1954. Today the top five largest securities exchanges in Africa are Johannesburg Stock Exchange (JSE), Egyptian Exchange (EGX), Nigerian Stock Exchange (NGX), Casablanca stock exchange (CSE) in Morocco and Nairobi Securities Exchange (NSE) in Kenya. The most recent stock exchanges are the Ethiopian Stock Exchange (ECX), and the Bourse de Matières Premières de l'Afrique de l'Ouest (BMPA) which opened in 2025. There are several notable countries on the continent that do not have a stock exchange (List of African stock exchanges, Wikipedia).

In <u>sub-Saharan Africa</u>, there are at least 12 countries with exchanges that allow trading in agricultural commodities:

- (1) *South Africa*: South African Futures Exchange (<u>Safex</u>), founded 1990, <u>Johannesburg</u>; Corn, wheat, soybeans (futures and derivatives), Sugar, sunflower oil, Beef and other agricultural products (via related indices and ETFs).
- (2) Nigeria: Nigeria Commodities Exchange (NCX), 2001, Abuja & AFEX Nigeria (private commodity futures market), 2014, Lagos; Cocoa, corn, soybeans, sorghum, Palm oil, cashew nuts, sesame. Special features: NCX is one of the leading commodity exchanges in Nigeria and offers trading opportunities for various agricultural commodities. The AFEX also operates in other Nigerian states and has expanded to other African countries, including Kenya and Uganda.
- (3) Kenia: Nairobi Coffee Exchange (NCE) & East African Exchange (EAX), NCE, 1938, Nairobi; EAC 2013, Kigali; coffee (auctions in Nairobi), corn, beans, wheat (via EAX). KACE focuses on providing market intelligence and has limited its activities due to reduced funding.
- (4) Ethiopia: Ethiopian Commodity Exchange (ECX), founded 2008, Addis Abeba; Coffee (Africa's largest exporter), Sesame, corn, wheat, millet. The ECX was the first of its kind in Africa and offers an electronic trading system with direct payment after the trade date (T+1). It links smallholder farmers to formal markets through cooperatives.
- (5) *Ivory Coast*: Bourse de Matières Premières de l'Afrique de l'Ouest (BMPA), 2025, <u>Abidjan</u>; Cocoa (world's largest producer), Coffee, cashew nuts.
- (6) Malawi: Agricultural Commodity Exchange for Africa (ACE), 2003, Lilongwe; Soybeans, peanuts, beans. ACE focuses on the internal market and has limited its activities due to reduced funding.
- (7) Zambia: <u>ZAMACE (Zambian Commodity Exchange)</u>, 2007, <u>Lusaka</u>; sojabeans, peanuts, beans
- (8) Zimbabwe: Zimbabwe Mercantile Exchange (ZMX), 2023, Harare; Maize (Corn), wheat, soybeans, sugar, cotton, sunflower, sorghum, livestock (Cattle). It provides a regulated platform for farmers, traders, and buyers, helps in price discovery and reducing post-harvest losses and encourages contract farming and commodity-backed financing.
- (9) Tanzania: <u>Dar es Salaam Mercantile Exchange (DME)</u> <u>Dar es Salaam</u>, 2014; Tobacco, corn, cotton, chickpeas. TMX uses a warehouse receipt system and plans to introduce electronic trading platforms. Currently, trading is conducted primarily via the physical marketplace.
- (10) *Mozambique* : [Bolsa de Mercadorias de Moçambique (BMM)](in planning); Cashew nuts, sugar, tobacco
- (11) Rwanda: East Africa Exchange (EEX), founded 2014, Kigali; Corn, beans, soy, wheat, sorghum, rice, tea, coffee. EAX is a regional exchange operating in several East

- African countries. It offers electronic inventory receipts and promotes access to finance for smallholder farmers.
- (12) *Uganda*: <u>Uganda Commodity Exchange</u> (UCE), 1998, <u>Kampala</u>; various agricultural raw materials. Trading has been suspended and the exchange is focusing on implementing a warehouse receipt system.

Commodity exchanges in <u>sub-Saharan Africa</u> are playing a pivotal role in enhancing market structures. They are achieving this by facilitating access to markets, improving transparency, reducing price volatility, and integrating smallholder farmers into formal economic systems. Despite facing challenges such as limited infrastructure and training needs, these initiatives demonstrate the potential for the region's agricultural sector to develop sustainably. However, it is important to note that many of these exchanges are still developing or experiencing liquidity issues. Trading in agricultural commodities often takes place via commodity exchanges rather than traditional stock exchanges. The most important export commodities in <u>West</u> and <u>East Africa</u> are cocoa, coffee and cashew nuts.

A well-known fact about the agricultural sector is that farmers in poorer agricultural economies are taxed, while subsidies are provided in more advanced ones (Tamru, Minten & Swinnen, 2021). A common problem for farmers in developing countries is exchange rate misalignment, which creates distortions in agricultural incentives that often disadvantage export agriculture. Exchange rate policies can have significant implications for export incentives. For instance, Ethiopian coffee exporters incur losses by offering high local coffee prices in order to access scarce foreign exchange. The resultant high wholesale prices are passed on to producers, meaning coffee farmers are the unintended beneficiaries of this rent. Farmers, especially those engaged in export agriculture, therefore often receive fewer benefits than they would if exchange rates better reflected market conditions. While exchange rate policies can impact the agricultural sector and rural areas more broadly, research has also shown that the pass-through of exchange rates to local prices (i.e. the extent to which changes in exchange rates are reflected in local prices) is incomplete, particularly in developing countries. Ethiopia exhibits similarities to situations observed in other countries (Tamru, Minten & Swinnen, 2021). The advantages of establishing a commodity exchange, such as the ECX, can benefit low-income, agriculture-dependent countries seeking to promote exports. The Ethiopia Commodity Exchange (ECX) is an example of this, having enhanced Ethiopia's coffee trade. Recent research revealed a substantial increase in coffee exports resulting from the ECX's establishment, in terms of both export volume and destinations (Ambaw, Edjigu & Sim, 2025).

According to Ngong et al. (2022), market capitalisation negatively affects agricultural growth, while stock value traded has a positive effect. Bidirectional causality exists between labour and agricultural value added, with a unidirectional flow of causality from agricultural value added to market capitalisation and stock value traded. African governments should promote agricultural growth initiatives and strategies to stimulate long-term stock market development. Effective methods to encourage the flow of credit and liquidity to agricultural enterprises through stock market intermediation should also be promoted, with uncompromising policies eliminating the bottlenecks that undermine the flow of credit to the agricultural sector. Governments in emerging African economies should increase funding for the capital market, as this would considerably boost economic growth through agricultural value added (Ngong et al., 2022).

Acknowledging the potential transmission of <u>risks</u> within these markets is vital, as this stems from the continent's heavy reliance on commodities and the close link between stock market performance and economic progress (Woode, 2024). Risk is transmitted across markets when

information flows neither immediately nor completely. This implies that a market's response to adverse sentiment spreads to other markets, regardless of prevailing conditions. In the short and medium term, there are weak interdependencies between commodity and equity markets, and in the long term, there is bidirectional risk transmission among all sampled markets. Central banks and equity market regulators in these markets must strengthen and implement robust risk management policies that consider these linkages. Furthermore, governments should diversify the economy to reduce reliance on commodities, improve production and increase value. This would reduce the region's susceptibility to shocks in the commodity and currency markets and boost economic growth and the development of the equity markets. Taking into account the bidirectional transmission of risk between commodity, exchange rate and SSA stock markets, particularly in the long term, changes in commodity prices and exchange rates can affect the volatility of SSA stock markets, especially in the long term (Woode, 2024).

SSA countries make a significant contribution to food security on the international market (Arthur, 2025; Afonso, & Reimers, 2022). However, external shocks have made the agricultural sector in SSA vulnerable, affecting commodity prices and the economic stability of member countries. Interest rates, exchange rates and the price of crude oil impact the prices of agricultural commodities in Sub-Saharan African countries. With food prices being projected to increase by 14.84 % from 2022 to 2023, concerns have been raised about welfare in SSA regarding rising poverty, food insecurity, and geopolitical tensions in the near future (Afonso, & Reimers, 2022). Crude oil prices and exchange rates have a significant impact on agricultural commodity prices. However, an inverse relationship between interest rates and agricultural commodity prices could not be observed. Crude oil price fluctuations impact transportation costs, input prices, and overall production expenses in the agricultural sector, while exchange rate variations influence market dynamics, import costs, and trade competitiveness. SSA countries must implement balanced monetary policies and targeted agricultural credit programmes, promote regional trade and currency agreements, and encourage investment in alternative energy sources, in order to reduce the effect of interest rates, exchange rates, and the price of crude oil on the agricultural sector (Arthur, 2025).

**Cartoon xy**: 'ACE can facilitate secure and reliable transport'



Source: © Tawiah, 2015

<u>Green finance</u> is increasingly shaping the financial markets of Sub-Saharan Africa, a region that has historically been underrepresented in global financial considerations (Mhlanga, 2024). A pivotal shift is underway towards sustainable investment practices, with environmental, social and governance (<u>ESG</u>) criteria being integrated into investment decision-making processes. Green finance is critical in enabling Sub-Saharan Africa to meet its sustainable development goals and enhance its participation in the global financial system.

Therefore, it is important to develop a deeper understanding of the interconnections between environmental sustainability and financial market development (Mhlanga, 2024).

Government policies significantly impact infrastructure, markets, and demand, but have a smaller effect on risk and crisis management (Salar, Izadi, & Pourfakharan, 2025). Market needs are recognised as powerful drivers of innovation and infrastructure development, while technology and innovation play a pivotal role in enhancing infrastructure. Human resources have a significant impact on infrastructure, but are less effective in crisis management. International interactions and environmental sustainability also influence culture and society. The supply chain is crucial in meeting market demands and societal culture plays a role in infrastructure development and environmental issues. Together, these ten factors — culture and society, government policies, market and demand, technology and innovation, human resources, infrastructure, risk and crisis management, international interactions, sustainability and the environment, and the supply chain — can be considered key to the agricultural commodity exchange (Salar, Izadi & Pourfakharan, 2025). One of the main factors triggering the decision to go public is the company leader's vision. This vision concerns the geographical area to be reached, the competitive or sectoral positioning, and the means to achieve it. Thus, a company led by such a visionary has a greater chance of being listed on the stock market (Kone & N'Dri & Kone (2022).

Africa is full of examples of why commodities should be at the heart of the continent's strategic choices (Canuto & Emran & Mandri, 2024). With its wealth in natural resources, including minerals, agricultural and energy commodities, the continent is in a position to use these commodities to drive progress and prosperity. However, the <a href="Dutch Disease">Dutch Disease</a> and the misuse or misappropriation of resources, especially commodities, can lead more often than not to catastrophic rather than positive outcomes. Key issues such as lack of liquidity and financial market readiness need to be addressed in order to decide whether the market is mature enough for the possible <a href="financialization">financialization</a> of commodities. The concept of financialization of commodities has gained global attention and sparked debate on the potential benefits and drawbacks. Challenges such as liquidity constraints and market readiness have emerged as critical impediments to its widespread adoption (Canuto & Emran & Mandri, 2024).

Exorbitant price volatility impacts farmers, consumers, processors and traders, as well as the political system (Abdallah, 2024). It has the potential to distort output and investment decisions made by farmers and intermediaries, resulting in inefficient resource allocation. Poor customers may be forced to reduce their spending on food and other items. If this trend continues, it could lead to political instability. A volatility spillover has been found between crude oil prices and food prices; different magnitudes of volatility have been registered, revealing the strength of its persistence. There is strong persistence in the volatility transmitted from crude oil prices to food prices. However, increased demand for biofuels may raise concerns about agricultural commodity prices, potentially jeopardising food security, particularly in vulnerable nations. Global cereal prices showed the highest volatility; this can be explained by the importance of the cereal sector in providing basic food in African countries. As oil price inflation is destructive to food security, it is important to expand energy consumption in this sector by moving away from a reliance on fossil fuels and towards an optimal mix of renewable and non-renewable energy resources, which would benefit both energy and food security. A positive relationship exists between agricultural producer prices and food security, indicating the importance of developing domestic production. It is not enough for policymakers to implement trade policy; they also need to develop monetary policy to protect the country from macroeconomic fluctuations and prevent economic crises (Abdallah, 2024).

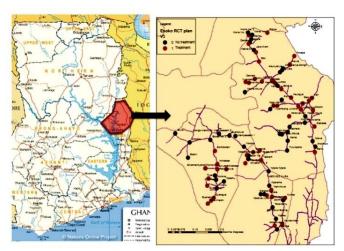
**Cartoon xy:** 'Cash payment attracting supply'



Source: © Robbins, P. et al (2004), p. 5

Smallholder farmers in sub-Saharan Africa and other similar regions face a development problem (Neza, Nyarko & Orozco, 2022). This problem can be summarised as a lack of effective markets for their goods. This could eventually be solved through innovations such as mobile phone-based price alerts, electronic trading platforms and national commodity markets. These three innovations are similar in that they all allow information to be transmitted to farmers and those who trade with them. However, such price information could also be harmful. For example, one could imagine a situation in which introducing price information to certain farmers could actually harm them. When traders realise that some farmers have superior information, it is possible that they will shun those farmers and go to others. These farmers may then find themselves in a situation where they no longer have any traders coming to their farms. In the worst-case scenario, where no traders come to them, they could be much worse off than if they had no price alerts (Neza, Nyarko & Orozco, 2022).

**Graph xy**: Treatment and control villages in the <u>Esoko</u> price information (<u>Ghana</u>)



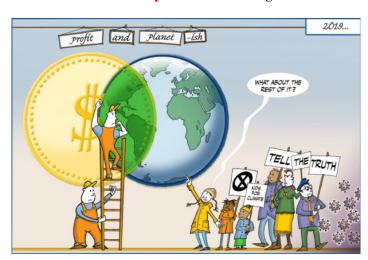
Source: © Neza, Keren & Yaw Nyarko & Angela Orozco, 2022:235

Also, <u>technology</u> can exacerbate <u>inequality</u> among farmers. Even innovations introduced to help farmers may increase inequality among them. For example, if price alerts or commodity

exchange innovations primarily benefit farmers who are already better off, inequality may increase. For example, if price alerts primarily benefit those who produce the cash crop <u>yam</u> and if these farmers are richer to begin with, as is reasonable to suppose, the innovation would help the better-off farmers more than the less well-off ones (Neza, Nyarko & Orozco, 2022). Similarly, one could imagine that the better-off farmers are more likely to engage with the commodity exchange. In that case, the introduction of the innovation could also lead to increased inequality. The following questions arise with all technological innovations: will the innovation result in more inequality, and is that inequality harmful? For example, does it fail to help those we really care about, such as the poorest of the poor? Or is it benign? For example, do enough farmers benefit for the inequality to be unimportant relative to the wider gains the technology enables? (Neza, Nyarko & Orozco, 2022).

In theory, functioning <u>warehouse receipt systems</u> (WRSs), like agricultural commodity exchanges, should help smallholder African farmers access loans, reducing poverty and enhancing <u>financial inclusion</u> (Aboagye, 2023). Unfortunately, many reviews of WRSs in African countries have concluded that the anticipated benefits are not accruing to <u>smallholder</u> farmers. There is potential for WRSs to have a positive impact on the lives of smallholder African farmers. However, WRSs must be structured to suit the needs of smallholder African farmers. The key to successfully implementing WRSs in Africa is to avoid blindly replicating them as implemented in other jurisdictions. Important context-specific factors for Africa include focusing on community warehouses rather than commercial ones, not grading grains, and not implementing full-scale collateral management arrangements (Aboagye, 2023).

# 2. Case Studies



#### **Cartoon xy:** Ethical banking?

Source: © leadsemantics (LS); Austin, 2020

There are many examples in <u>Sub-Saharan Africa</u> of why commodities should be at the heart of the continent's strategic choices (Canuto, Emran & Mandri, 2024). Given its abundance of natural resources, including minerals, agricultural produce and energy commodities, the continent is well-placed to leverage these resources to drive progress and prosperity. However, as we have seen with the <u>Dutch disease</u><sup>4</sup>, the misuse or misappropriation of resources, especially commodities, can more often than not lead to catastrophic rather than positive outcomes. The <u>financialisation</u> of commodities was introduced to the world as early as the 19(th) century and has yielded controversial results and fuelled additional <u>inflation</u> (Canuto & Emran & Mandri, 2024).

Since the 1980s, an important aspect of <u>financial crises</u> that is becoming apparent is that they can start from one market and quickly spread to other markets. As for the effects of <u>contagion</u> on sub-Saharan African stock or commodity markets, there is no evidence of infection from crises in global developed markets such as the <u>UK</u> and the <u>US</u> (Akunga, Ahmad & Coleman, 2023). However, there is evidence of contamination from crises in <u>emerging markets</u> (<u>China, South Africa</u> and <u>Kenya</u>). Non-crisis contingent analysis highlights the importance of regional economic fundamentals, particularly inflation and <u>GDP</u>, in influencing stock market volatility in <u>South Africa</u>, <u>Nigeria</u> and <u>Kenya</u> (Akunga, Ahmad & Coleman, 2023).

Excluding South Africa, the number of listed firms and stock market capitalization in Sub-Saharan Africa (<u>SSA</u>) has remained relatively low and practically static (Afful, 2018).

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<sup>&</sup>lt;sup>4</sup> "The Dutch disease refers to changes in a country's production structure following a positive shock, like the discovery of a significant natural resource or a rise in the international price of an exportable commodity. This phenomenon is expected to lead to structural changes, including a reduction or stagnation in other tradable sectors of the economy and an appreciation of the country's real exchange rate. When the sector that is flourishing involves oil or minerals, the declining tradable sectors typically include manufacturing and agriculture. While these changes are expected to be beneficial due to increased national income, they can raise concerns if the declining sectors possess unique characteristics that could drive long-term growth and welfare, such as increasing returns to scale or positive technological externalities. Dutch disease concerns may also stem from large and sustained inflows of private capital or foreign aid. The condition can have implications for productivity dynamics and volatility, prompting policymakers to consider various responses involving fiscal, exchange rate and structural reform policies." (Canuto & Emran & Mandri, 2024).

Increases in the agricultural and service sectors have slight adverse effects on the number of listed companies. Industry and services are found to have a positive influence on market <u>capitalization</u>. In contrast, the externality and network effects of the service sector negatively influence capitalization. Both capitalization and number of listed firms have a dynamic relation with their past values. A number of listed firms may be less sensitive to market variables (Afful, 2018).

In the following, agricultural commodity exchanges will be investigated in more detail in Anglophone Sub-Saharan Africa. Apparently, the stronger establishment and development of agricultural commodity exchanges in Anglophone Africa compared to Francophone Africa can be attributed to a combination of historical, economic, institutional, and policy-related factors. The divergence stems from historical institutional paths, monetary policies, legal systems, and market liberalization trends. However, as Francophone Africa integrates more into global markets and reforms its agricultural sectors, commodity exchanges may gain traction in the future.

Here are some key reasons why commodity exchanges are more anchored in Anglophone Africa:

#### 1. Colonial Legacy and Institutional Frameworks

- Anglophone Africa: British colonial rule often left behind market-oriented institutions, including commodity exchanges (e.g., the <u>East Africa Produce Exchange</u> in Kenya during colonial times). Post-independence, countries like <u>Kenya</u>, <u>Nigeria</u>, and <u>South Africa</u> built on these foundations.
- Francophone Africa: French colonial policy was more centralized and extractive, focusing on exporting raw materials to France under tight control (e.g., through the <a href="CFA franc">CFA franc</a> system and <a href="marketing boards">marketing boards</a>). This discouraged the development of independent commodity markets.

#### 2. Monetary and Trade Policies

- <u>CFA Franc System</u>: Francophone Africa's use of the CFA franc (pegged to the <u>euro</u> and historically guaranteed by France) created a stable but rigid monetary environment. This reduced exchange rate risks but also limited local financial market innovation, including commodity exchanges.
- *Trade Ties with France*: Francophone African countries historically directed agricultural exports to France under preferential agreements (e.g., <u>STABEX</u>), reducing the need for competitive domestic exchanges.

#### 3. Legal and Regulatory Environment

- Anglophone Africa: Common law systems (inherited from Britain) are often more adaptable to financial market development, including commodity exchanges (e.g., South Africa's SAFEX, Kenya's ACE, Nigeria's AFEX).
- Francophone Africa: Civil law systems (from France) tend to be more rigid and state-centric, with weaker support for private-sector-led exchanges. Bureaucratic hurdles and state control over agriculture (e.g., via marketing boards) persist in many Francophone countries.

#### 4. Market Liberalization and Privatization

• Anglophone Africa: Countries like <u>Kenya</u>, <u>Uganda</u>, and <u>Zambia</u> underwent significant market liberalization in the 1980s-1990s, dismantling state marketing boards and encouraging private sector participation in commodity trading.

• Francophone Africa: Liberalization was slower, and many countries retained state-controlled marketing systems (e.g., **SONAGRIES** in Senegal, **OPAT** in Côte d'Ivoire), limiting private exchange development.

# 5. Financial Sector Development

- Anglophone Africa: Stronger banking sectors and capital markets (e.g., <u>Johannesburg Stock Exchange</u>, <u>Nairobi Securities Exchange</u>) provided a foundation for commodity derivatives trading.
- Francophone Africa: Financial markets are less developed, with fewer instruments for hedging and price discovery, making commodity exchanges harder to sustain.

#### 6. Language and Regional Integration

- Anglophone Africa: English is a global business language, making it easier to attract international investors and integrate with global markets (e.g., Ethiopia's ECX, despite being non-Anglophone, was influenced by Anglophone models).
- Francophone Africa: French-speaking countries have been slower to adopt exchanges, though regional efforts (e.g., <u>BRVM</u> in <u>West Africa</u>) are emerging.

## 7. Success Stories and Demonstration Effects

- South Africa's SAFEX (since 1988) and Kenya's ACE (since 2014) have served as models for other Anglophone countries.
- Francophone Africa lacks such strong examples, though Bourse Africaine des Matières Premières (BAMP) in Côte d'Ivoire is a recent attempt.

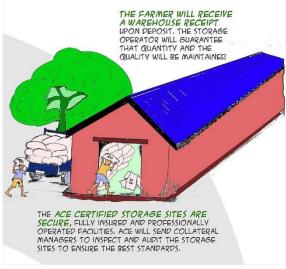
#### 8. Government and Donor Priorities

- Anglophone countries have often received more donor support (e.g., <u>USAID</u>, <u>World Bank</u>) for market-based agricultural reforms.
- *Francophone* countries have traditionally relied more on direct state intervention or French aid tied to existing structures.

#### **Emerging Exceptions**

• Francophone Africa is catching up, with exchanges like BAMP (Côte d'Ivoire) and Ligdiaac (<u>Senegal</u>), but they remain less developed than Anglophone counterparts.

**Cartoon xy**: 'Farmers will receive a warehouse receipt'



Source: © Tawiah, 2015

# 2.1 South Africa

**Cartoon xy:** 'Grain hedging: lessons from farmers who get it right'

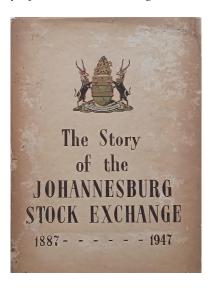


Source: © Staff Reporter, 2019

Since the South African agricultural sector transitioned from a controlled economy to a free market system in the 1990s, farmers have had to adapt to extreme volatility in the commodities market (Staff Reporter, 2019). One valuable tool for mitigating this risk is hedging, which maize farmers can utilise to stabilise prices. However, to benefit from it, they must understand how it works. Volatility from one season to the next, and even within a season, poses a risk to the long-term profitability of maize farmers. Fortunately, this risk can be mitigated through grain hedging. Hedging and speculating are two completely different things. Farmers who wish to implement a derivative strategy must carefully evaluate whether it will reduce or increase risk. All too often, farmers have unsold surplus maize left over from the previous season, as well as a harvest waiting to be harvested, yet still decide to buy futures. The primary purpose of a futures contract on the stock exchange is to reduce risk for farmers. Many farmers still do not know the cost of planting their crop. How can you effectively hedge your grain if you do not know its value? Before the season begins, estimate the costs involved in getting the crop in the ground and through to harvest. Once you have this information, you can decide on a trigger level to protect your profits. To do this, calculate the price at which you would be happy to sell your crop, taking into account total costs and the expected harvest yield. The trigger level is essentially the price at which a profit can be made. As soon as prices reach this level, begin hedging. This will help you to eliminate emotions, remove risk and protect profits. There is no need to carry stock over to the next year every time. If you reach your trigger level and can make a good profit, eliminate your risk (Staff Reporter, 2019). Another tool would be commodity exchanges.

South Africa is home to South African Futures Exchange (<u>SAFEX</u>), the largest commodity exchange in Africa. Since 2000, it has traded well over a hundred thousand contracts a month (Canuto, Otaviano, Emran & Mandri, 2024). Originally created as a currency trading platform in 1988, SAFEX introduced agricultural futures contracts in 1995 in anticipation of the expected deregulation of agricultural trade, including the abolition of fixed-price purchases and marketing boards.

**Graph xy:** 'The history of the Johannesburg Stock Exchange, 1887-1947'



Source: © Committee of the JSE, 1948

<u>SAFEX</u> currently offers contracts for white and yellow maize, bread milling wheat, sunflower seeds and soybeans. SAFEX prices are an important reference point for grain trade in several neighbouring countries (Canuto, Otaviano, Emran & Mandri, 2024). Commodity trading on SAFEX is organised through a new Agricultural Markets Division, which has rapidly attracted 84 members who have collectively provided the exchange's start-up capital of US\$1 million. The exchange was set up as a not-for-profit mutual organisation. Its trading and clearing platforms were the same as those used for SAFEX's financial products.

In 2001, SAFEX was acquired by the <u>Johannesburg Stock Exchange</u> (a for-profit, publicly listed company) but retained its brand name (Canuto, Otaviano & S. Emran & B. Mandri (2024). However, the commodity trading division was renamed Agricultural Products Division. SAFEX initially started with beef and potatoes futures contracts, both cash-settled, but both were unsuccessful and delisted two years later (Canuto, Otaviano & S. Emran & B. Mandri (2024).

SAFEX's first successful contract, a futures contract on the country's main staple crop of white maize, was launched in May 1996 alongside a contract on yellow maize. The provisions of the 1996 Agricultural Marketing Act were due to come into effect on 1 January 1997, and the grain industry required new mechanisms. SAFEX rose to the challenge by designing its contracts around a robust delivery system and using transferable silo receipts. This simultaneously created an environment conducive to both spot and futures trading. White maize still accounts for the largest share of trading on the exchange, representing around 40% of the total value traded. Wheat futures were added when the Wheat Board was deregulated in 1997. Option contracts for maize and wheat were introduced in 1998. The trading volume for maize is now 15–20 times the production volume, while for wheat it is 8–10 times. From an international perspective, these figures are normal. Futures and options for sunflower seeds were introduced in 1999. In 2000, a second white maize contract was introduced for maize of lower quality than that specified in the original contract. This contract was discontinued in late 2002, but reintroduced in mid-2006 (Canuto, Otaviano, Emran & Mandri, 2024).

In the quest for economic development in developing nations, particularly in <u>sub-Saharan</u> <u>Africa</u>, great emphasis is often placed on <u>rural areas</u> and, in particular, on farmers in those

areas (Nyarko, 2025). After all, such <u>peasants</u> both form the bulk of the population and are often the poorest segment of it. Many believe that agricultural sector reform could be a stepping stone to the broader economic development of such nations. However, major problems include the relationship between the formal and <u>informal sectors</u> of rural credit markets, and the consequences of government interventions in formal credit markets, as well as imperfect credit markets. A sole trader-lender can easily enforce his claim by deducting it from the value of crops sold to or through them. In towns with well-organised commodity markets, traders may sometimes cooperate in enforcement (Nyarko, 2025).

According to Akunga, Ahmad and Coleman (2023), there is no evidence of <u>contagion</u> in sub-Saharan African markets from crises in developed global markets such as the UK and the US. However, there is evidence of contagion from crises in emerging markets (China, South Africa and Kenya). Non-crisis contingent analysis highlights the importance of regional economic fundamentals, particularly inflation and GDP, in influencing stock market volatility in South Africa, Nigeria and Kenya (Akunga, Ahmad & Coleman, 2023).

Minerals

Gold
Copper, iron or other ores

Phosphate and Fertilizers

Energy
Oil
Gas

Agriculture, Forestry & Fishing
Coffee and/or Cocoa Beans
Cotton
Other (textiles, leather products, garments...)

**Graph xy:** Top commodities' exports by African country

Source: Nyarko, 2025: 10

**Cartoon xy:** Bear vs. Bull is the name of the game!



Source: © JHFP, Jason Hawthorn Financial Planning

There is a growing concern regarding how different stock markets respond to diverse accounting information disclosure which is of utmost importance to (foreign) investors and other stock and commodity market participants (Alade, 2025). Share prices at the <a href="Ghana stock">Ghana stock</a> market for example, are less dispersed compare to that of <a href="Nigeria">Nigeria</a>. Both earnings per share and book value of equity per share jointly explain significant variations in share price of the listed firms in both Ghana and Nigeria stock markets, but more for large firms in both markets and more for financial and non-financial in Ghana and Nigeria respectively. The accounting information are more value relevant in the Nigeria exchange group than Ghana stock market based on the parameters' coefficient and explanatory powers. These results have implications for foreign investors, market regulators, and other stock market participants (Alade, 2025).

**Graph xy:** Digital workflow of SCM-finance integration from harvest to credit disbursement



Source: © Alawode & Chiam, 2024: 95

Structured commodity markets (SCMs) are vital for formalising transactions in informal agricultural markets (Alawode & Chiam, 2024). Through warehouse receipts, small-scale farmers can access post-harvest liquidity and participate in forward sales, thereby reducing their dependency on unfavourable market conditions. Digital innovation, particularly the use of interoperable mobile platforms and fintech-enabled credit assessments, improves accessibility and traceability, even in areas with limited infrastructure. These systems multiply their inclusive potential when aligned with local cooperative banks, microfinance institutions, and rural development programmes. Coupling warehouse receipt systems with

structured exchanges has measurably improved farmer bargaining power, financial inclusion and market efficiency. The key enablers of successful SCM–finance linkages are interoperable digital platforms, risk-sharing mechanisms and inclusive policy frameworks. However, there is a need for coordinated <u>public–private partnerships</u> to address issues of access inequality and scalability (Alawode & Chiam, 2024).

Commodity trade has influenced the economic well-being of Nigerians (Akidi, Cookey & Olise, 2025). Net agricultural and manufacturing exports had favourable and substantial effects on the <u>Human Development Index</u> in Nigeria in the short and long term, while net mining and quarrying exports had favourable but insignificant effects in the long term. However, their one-year lagged results had a favourable and substantial impact on the Human Development Index, and net service exports had favourable but insignificant effects in the long term, as well as favourable and substantial effects in the short term. Hence, net commodity trade is an important contributor to improved economic well-being in Nigeria. It is therefore suggested that the government implements policies that promote the diversification of Nigeria's export base by encouraging multi-sectorial real investments to expand the value chain and improve the trade balance (Akidi, Cookey & Olise, 2025).

The Nigeria Commodities Exchange (NCX) is (besides the Nigerian Stock Exchange) one of two principal stock exchanges in Nigeria (Abuja Securities and Commodities Exchange, Wikipedia). It is located in Abuja, the country's capital, and it was founded in 1998. The NCX is primarily involved with the trading of commodities such as maize, sorghum and millet, as opposed to trading in securities such as bonds and company stock. The Nigeria Commodity Exchange has concluded plans to set up a market information system for 12 commodity markets in the country. The Managing Director, NCX, Mrs. Zaheera Babaari, said in December 2020 that within the next few months, the market information systems for the 12 major markets would be replicated in the 36 states and this would enable people get information about commodities prices as well as production of agricultural produce (Abuja Securities and Commodities Exchange, Wikipedia).

The Nigerian agricultural commodity exchanges deal e.g. in <u>wheat, corn, soybeans, coffee, cotton</u>, and the <u>livestock</u> markets in <u>cattle</u> and <u>hogs</u> (Cowrywise, 2025). Benefits of a Commodity Exchange are:

- 1. *Portfolio Diversification*: Commodity exchange offers an additional asset class for <u>portfolio diversification</u>, reducing overall investment risk and enhancing long-term returns.
- 2. *Price Discovery*: Transparent trading on commodity exchanges facilitates efficient price discovery, reflecting real-time market fundamentals and fostering fair valuation.
- 3. *Global Reach*: Commodity exchanges operate on a global scale, providing access to a wide range of investment opportunities across international markets.
- 4. *Inflation Hedge*: Commodities like precious metals serve as effective hedges against inflation, preserving purchasing power in times of economic uncertainty.

#### Key Players in a Commodity Market are:

- *Producers*: Commodity exchanges are used by farmers, miners, and other producers as a risk management tool, price hedge, and source of future revenue.
- *Traders*: Speculators and investors actively participate in the commodities market to capitalize on price movements, aiming for profit through buying low and selling high.
- Consumers: Industries and consumers leverage commodity exchanges to procure raw materials at competitive prices, ensuring supply chain efficiency and cost optimization.

The Nigeria Commodity Exchange (NCX) is the largest commodity exchange market in Nigeria and the rest of West Africa. It is a government-backed exchange established to facilitate the trading of a wide range of commodities, including agricultural products such as cashew, ginger, soya beans, sorghum, and groundnuts, as well as financial derivatives and solid minerals. Its offerings are designed to deliver value to all stakeholders in the agricultural and extractive industries. Its focus is on trade facilitation, price discovery, storage solutions, quality control, and smallholder farmer management systems. Its focal crops are:

- Cashew Nuts
- Coffee Beans
- Cotton
- Maize
- Millet
- Paddy
- Sesame
- Sorghum
- Soya Beans
- Wheat

Beside the <u>NCX</u> there exists the Lagos Commodities and Futures Exchange (LCFE). The LCEF offers a wider variety of commodities, including agricultural products, oil and gas, currency, and solid minerals. While it might not be the biggest in purely agricultural products, its wider range could position it as a larger overall exchange.

In order to improve the efficiency of agricultural marketing through the <u>commodity exchange</u> system in Nigeria, it is important to keep in mind the key elements of its history. Formerly, informal marketing, characterised by black market trading, smuggling, hoarding, haggling, a lack of standards and waste during harvest periods, as well as poor infrastructure, has dominated Nigerian agriculture. This has hindered agricultural and economic development (Issa, Fapojuwo & Bidoli, 2011). This affected both, farm inputs and outputs, as well as traded and non-traded commodities. Since the abolition of the 'commodity board' in 1987, the prevailing disorder in Nigeria has made farming a riskier and more unstable business, leaving farm operators in the dark as to what to produce, when and where to produce it, how to obtain inputs, and what the right prices are (Issa, Fapojuwo & Bidoli, 2011).

The introduction of a <u>commodity exchange</u> system was expected to considerably improve the market arena for agricultural products (Issa, Fapojuwo & Bidoli, 2011). It was assumed that it would boost agricultural production and the utilisation of inputs and other resources. A regular supply of raw materials for industrial use would be ensured, thereby promoting overall economic development. The adoption of a commodity exchange market was also assumed to eliminate the various inefficiencies that characterise the Nigerian market. However, improving marketing systems requires a robust private sector supported by appropriate policy and legislative frameworks, as well as effective government support services. These services could include the provision of market infrastructure and information, marketing training at all levels, and <u>agricultural extension</u> services to advise farmers on marketing (Issa, Fapojuwo & Bidoli, 2011).

In <u>SSA</u>, including <u>Ghana</u> and <u>Nigeria</u>, clients successfully adapted or adopted the KACE MILS model, which provides smallholder farmers with reliable and timely market information and market linkage services. According to Ajakaiye & Olomola (2011), belonging to a farmer group positively affects the adoption of new varieties. For example, it

increased the probability of adopting improved dual-purpose cowpea IDPC varieties by about 14.2%, as well as increasing the intensity of adoption (the ratio of IDPC area to total cowpea area) by about 0.31. This indicates that participation in producer groups has a stronger impact on facilitating technology adoption.

It was only in the early 1990s that many sub-Saharan African countries, such as Nigeria, Ghana and South Africa, began to promote agricultural commodity exchanges. These initiatives were endorsed by policymakers at the continental level at the Second Extraordinary Session of the African Ministers of Trade, which took place in Arusha in November 2005. The focus on developing market institutions, such as commodity exchanges, emerged after the liberalisation of agricultural markets in most African countries. Prior to this, the agricultural marketing systems of most African countries were characterised by widespread government intervention (Ajakaiye & Olomola, 2011).

The Abuja Securities and Commodity Exchange (ASCE) is a spot/cash exchange promoted and largely funded by the Government of Nigeria, which provided office facilities, vehicles, office equipment, and funds for ongoing expenses, including the salaries of its sizeable management team (Ajakaiye & Olomola, 2011). As was the case with the UCE prior to 2006, the exchange operates a trading system that lacks a credible delivery mechanism. Unsurprisingly, therefore, it has struggled to achieve significant trading volumes. Between July 2006 and the first quarter of 2009, the ASCE traded a total of 2,874 tonnes of sorghum, maize, cowpeas, millet and soybeans, valued at just under US\$400,000. This represented a tiny fraction (0.12%) of the annual demand for cocoa and these commodities from formal buyers (i.e. industrial end users). Government and donor equity investment in establishing national agricultural commodity exchanges in <a href="Ethiopia">Ethiopia</a>, <a href="Nigeria">Nigeria</a> and <a href="Uganda">Uganda</a> significantly dwarfed private contributions (Ajakaiye & Olomola, 2011).

In 2016, an evaluation of the Abuja Commodity Exchange model for agricultural marketing and market development in Nigeria revealed that the Exchange was still in its infancy, having existed for only seven years (Raji, 2016). It had yet to extend its reach to certain environmentally compelling areas, such as disseminating market information to agricultural product producers, providing an extension warehouse facility at the grassroots level, and offering a weather forecast service to farmers to enhance production and productivity. Moreover, the Abuja Commodity Exchange's scope is not limited to agricultural commodities alone, which hinders specialisation and efficiency. This is a major setback, as the nation lacks the necessary infrastructure and human resources to make centralisation work (Raji, 2016). Agriculture was formerly a major source of food production, raw materials and employment, as well as a means by which the government generated substantial income prior to the oil boom of the late 1950s, which gradually pushed the contribution of non-oil export commodities into the background. This is evident from the drastic fall in 2000 from 3.41% in 1998 to 1.19%, reaching an all-time low of 0.52% (Raji, 2016).

Two pivotal institutions in relation to commodities exchanges and the development of Nigeria's raw materials are the Raw Materials Research and Development Council (RMRDC) and the Commodities Exchange in Nigeria (CEN) (Ike-Muonso, 2024). While the RMRDC focuses on researching and optimising raw materials for industrial use, the CEN serves as a platform for efficient trade, price discovery and risk management. Together, these institutions provide a blueprint for leveraging Nigeria's raw materials for economic transformation. Nigeria is home to three major commodities exchanges: the Nigerian Commodity Exchange (NCX), the Lagos Commodity and Futures Exchange (LCFE) and AFEX Commodities Exchange Limited (AFEX). These exchanges facilitate the trade of agricultural products, solid minerals, and energy minerals, promoting transparency, fairness, and efficiency. Their

platforms connect producers to markets, helping farmers, miners and other stakeholders to achieve competitive product pricing. This structure mitigates market inefficiencies and incentivises increased production, laying the groundwork for the sustainable development of industrial raw materials (Ike-Muonso, 2024).

Nigeria's Agricultural Transformation Agenda (<u>ATA</u>) may not achieve its desired objectives unless intergovernmental and inter-agency interactions are understood and coordinated in the design and implementation of ATA programmes, particularly those still under development (Olomola, 2015). Unfortunately, policymakers in Nigeria still do not recognise the interactions among the three tiers of government as a major issue in refining and reinforcing the design of the transformation process. No tier of government acting alone can create an environment that will sufficiently enable farmers and other beneficiaries of ATA initiatives to receive the maximum possible benefits. Without the meaningful involvement of a particular level of government, the implementation of programmes can be fraught with delays and avoidable costs. This could jeopardise the sustainability of the ATA (Olomola, 2015).

The failed commodity exchanges in Nigeria and other SSA countries like <u>Zambia</u>, <u>Uganda</u>, <u>Zimbabwe</u> and <u>Kenya</u>, had the same flaw: a <u>top-down approach</u>. An approach that was capable of attracting foreign funders, yet incapable of improving farming practices, developing transportation and communication network (Liesdek, 2017).

Yet, the emergence of computer and internet based <u>ICT platforms</u> offers an agricultural commodity exchange platform (Ebe, F.E. et al, 2022). The use of ICTs has consistently advanced over the last ten years and the number of people connected to the <u>Internet</u> via fixed or mobile devices is increasing rapidly with African farmers, especially the youth, not been left out of this ICT explosion. <u>Mobile phone</u> (88.89%), <u>internet</u> (58.33%), <u>radio</u> (52.22%), <u>computer</u> (55.56%), <u>social media</u> (66.67%), <u>facebook</u> (58.33%) and <u>Youtube</u>/online videos (58.33%) were the most commonly used ICT tools in agriculture. Youth participation in agricultural value-chain activities is a high yielding venture as the average revenue, cost and return for youth in different value chain activities were № 486,203.61, № 166,433.33 and №319,770.3. Therefore, government should provide adequate fund for youth-led (young men and women) agribusiness activities to enable it procure necessary relevant ICT facilities. Also Youth should engage themselves in continuous training in ICT facilities (Ebe, F.E. et al, 2022).

Several agricultural policies have been enacted and implemented over the decades in Nigeria, but the agricultural sector is yet to maximize its potential and bring about the desired development to the country (Ifeoma, 2019). The current policy known as the Agricultural Promotion Policy (APP) is expected to unlock the sectors potentials, reduce dependence on crude oil export and ignite the growth of the Nigerian economy. The review of the APP shows that the policy recognizes inherent constraints which have a bearing on entrepreneurship in the sector and goes to great lengths to provide clear policies on how to tackle each of them. The policy prioritizes partnership with the private sector and liberalization of the agricultural input and output markets, is gender and age-sensitive, and recognizes the need for infrastructural development especially in rural areas to create an enabling environment for entrepreneurial opportunities amongst other issues (Ifeoma, 2019).

# 2.3 Ghana

**Cartoon xy**: 'ACE will train and sensitise the farmer'



Source: © Tawiah, 2015

In 2015, the Bank of Ghana (BoG) introduced the Warehouse Receipt System (WRS) to provide financing within the country (Tawiah, 2015). Under this system, loans are granted based on goods or commodities held in trust as collateral. According to the BoG, the initiative aims to address issues arising from the absence of a developed domestic commodity exchange and stabilise the country's financial system. Market participants are expected to issue Commodity-Backed Warrants (CBWs) to fund their operations, as these instruments are a prerequisite for establishing commodity exchanges. The initiative will expand the frontiers of the banking system and establish the financial infrastructure needed to fuel the operation of the proposed commodity exchanges. At the time, Ghana's commodities market was underdeveloped, with only cocoa and crude oil having well-structured market infrastructures to facilitate trading. The absence of a commodity exchange hindered domestic trading of these commodities, with issues of price discovery and transparency being key consequences (Tawiah, 2015).

**Graph** xy: What is the Ghana commodity exchange (GCX)



Source: © Owoo, 2021

Case studies of <u>smallholder</u> maize farmers' participation in the Ghana Commodity Exchange revealed modest participation, with around 44% of farmers taking part (William, 2022). Surprisingly, they trade around 72% of their output. The study found that the decision of

smallholder farmers to participate in commodity exchange trading is influenced by factors such as age, gender, farm size, land tenure, access to extension services and credit, as well as the quantity of harvested maize, household size and price risk exposure in Ghana. These findings imply that smallholder farmers would engage more in the output market if farm size, proportion of owned farmland, access to extension services and financing, and the amount of harvested maize were increased, while price risk on the GCX was reduced. In order to encourage farmers to participate in exchange trade, price risk exposure on the exchange should be prioritised and reduced (William, 2022).

**Cartoon xy**: 'The banks trust the warehouse receipt'



Source: © Tawiah, 2015

There is growing concern about how different stock markets respond to various forms of accounting information disclosure, which is of the utmost importance to investors and other participants in the stock market (Alade, 2025). Analyses showed that share prices in the Ghanaian stock market are less dispersed than in the Nigerian stock market. Earnings per share and book value of equity per share jointly explain significant variations in the share prices of listed firms in both the Ghanaian and Nigerian stock markets, but to a greater extent for large firms and for financial and non-financial firms in Ghana and Nigeria respectively. Furthermore, accounting information is value-relevant in both stock markets, but earnings per share have a positive effect, while book value has an opposite effect in the two markets (Alade, 2025).

In the quest for economic development in developing nations, and in particular <u>sub-Saharan Africa</u>, there is often great emphasis placed on the <u>rural areas</u> and especially on <u>farmers</u> within those rural areas. Such <u>peasants</u>, after all, both form the bulk of the population and also often are the poorest segments of the population. Many believe that reform in the agricultural sector could be a stepping stone to the broader economic development of such countries (Nyarko, 2025).

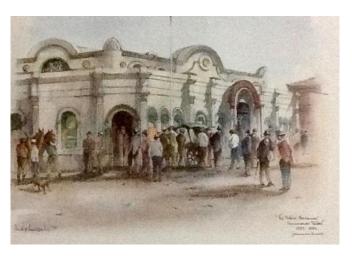
**Cartoon xy**: 'The farmer receives the balance'



Source: © Tawiah, 2015

# 3. Conclusion

**Graph xy:** Bawcombe's drawing of the First Johannesburg Stock Exchange



Source: © Munro, 2019

Agricultural commodity exchanges (ACEs) in Sub-Saharan Africa (SSA) hold significant potential to improve market efficiency, reduce price volatility, and enhance food security by connecting smallholder farmers to structured markets. Yet, their effectiveness hinges on addressing structural constraints and ensuring inclusive participation. Despite challenges such as inadequate infrastructure, limited access to finance, and weak regulatory frameworks, successful models like Ethiopia's ECX and South Africa's SAFEX demonstrate their viability. ACEs can facilitate price discovery, reduce post-harvest losses, and encourage investment through standardized contracts and risk management tools. However, their scalability depends on policy support, technological adoption (e.g., digital platforms), and farmer education. Strategic interventions to address systemic constraints could unlock ACEs' transformative role in SSA's agricultural development.

ACEs enhance price stability and reduce post-harvest losses through structured markets. Yet, there is limited smallholder participation due to high <u>entry barriers</u> (e.g., quality standards, lack of infrastructure). The success of ACEs depends on supportive policies, digital integration (e.g., mobile platforms), and farmer education.

A more detailed theoretical framework of studies on ACEs would embrace firstly <u>Institutional Economics</u>, which analyses how ACEs reduce transaction costs, mitigate information asymmetry and enforce contract compliance. Secondly, it would incorporate <u>market microstructure theory</u> to explore price formation, liquidity and the role of intermediaries in ACEs. Thirdly, it would incorporate <u>development economics</u>, which discusses ACEs as tools for reducing poverty and integrating smallholder farmers into formal markets.

# Bibliography:

- **Aboagye**, Anthony (2023): <u>Structuring African warehouse receipt systems to succeed</u>. *Athens journal of business & economics*, vol. 9 (4), pp. 475 492
- **Abdallah**, Marwa Ben (2024): <u>Factors of food security: agricultural price transmission and volatility spillovers</u>. PhD, Hungarian Univ. of Agric. And Life Sciences, Gödöllő, Hungary, 54 p.
- **Afful**, Kofi (2018): Does the structure of SSA economies explain their low stock market capitalization and small number of listed companies? A dynamic panel analysis. *Journal of Economics and Sustainable Development*, vol.9 (10), pp. 145-152
- **Afonso**, A. & M. **Reimers** (2022): <u>Does the introduction of stock exchange markets boost economic growth in African countries? *Journal of Comparative Economics*, pp. 1-95</u>
- **Ajakaiye**, D.O. & A.S. **Olomola** (2011): <u>Developing agricultural commodity markets for improved regional trade in Africa</u>. In: International Livestock Research Institute (ILRI). *Towards Priority Actions for Market Development for African Farmers*: Proceedings of an International Conference. 13-15 May 2009, Nairobi, Kenya, pp. 370-391
- Alade, Muyiwa E. (2025): Value relevance of accounting numbers in emerging Sub-Saharan Africa stock markets: Comparison between Ghana and Nigeria. In: Moloi, T. (eds): Impacting Society Positively Through Technology in Accounting and Business Processes. ICAB 2024. Springer Proceedings in Business and Economics. Springer, Cham. 10 May 2025, pp. 1-9
- Alawode, Adedapo & O.T. Chiam (2024): <u>Linking structured commodity markets with formal agricultural finance to improve value chain transparency and inclusion</u>. *International Journal of Advance Research Publication and Reviews*, vol 1 (4), pp 87-109
- **Akidi**, Victor & I.F. Cookey & O.T. Olise (2025): <u>Empirical analysis of commodity trade on economic well-being: Evidence from Nigeria.</u> *International Journal of Social Sciences and Management Research*, vol 11 (1), pp. 269-288
- Akunga, Robert & A.H. Ahmad & Simeon Coleman (2023): Financial market integration in sub-Saharan Africa: How important is contagion? Int J Fin Econ., pp. 28:3637–3653R Akunga, AH Ahmad... International Journal of ..., 2023 29 March 2022
- **Ambaw**, Dessie Tarko & Habtamu **Edjigu** & Nicholas **Sim** (2025): <u>Improving exports: Quasi-experimental evidence from the Ethiopia Commodity Exchange</u>. *The World Economy*, vol. 48 (5), pp. 1156-1173
- Arthur, Solomon (2025): The effects of macroeconomic indicators on agricultural commodity prices in Sub-Saharan African (SSA) countries. University of Cape Coast, 85 p.
- Austin, Duncan (2020): The history of ESG in 5 cartoons: What next? Linkedin, 21 April 2020
- Canuto, Otaviano & S. Emran & B. Mandri (2024): <u>Financializing commodity markets:</u> <u>consequences, Advantages and African case study</u>. Policy Center for the New South, cademia.edu, pp. 1-18
- **Ebe**, F.E. et al (2022): <u>Impact of ICT usage on success/failure of youth-led agribusiness activities in different agricultural value chains in Southeast Nigeria</u>. *Nigeria Agricultural Journal*, vol. 53 (3), pp. 212-215
- **Ifeoma**, Odunze Daisy (2019): A review of the Nigerian agricultural promotion policy (2016-2020): implications for entrepreneurship in the agribusiness sector. International Journal of Agricultural Policy and Research, vol.7 (3), pp. 70-79
- **Ike-Muonso**, N. (2024): <u>Commodities Exchanges and Nigeria's Raw Materials Development</u>. *Raw Materials 360*, n.p.
- Issa, F.O. & O.E. Fapojuwo & T.D. Bidoli (2011): <u>Improving agricultural marketing efficiency through the commodity exchange system in Nigeria: a review</u>. *Nigerian Journal of Agricultural Economics*, vol. 2(1), pp. 89-99, *AgEcon Search*

- **Kohnert**, Dirk (2018): <u>Trump's tariff's impact on Africa and the ambiguous role of African agency</u>. *Review of African Political Economy*, 2018, vol. 45, No. 157, pp. 451-466
- **Kohnert**, Dirk (2014): <u>African agency and EU- African Economic Partnership Agreements. Review Article</u>. *Africa Spectrum*, 49 (2014) 3: 149-155
- Kohnert, D. (2011): <u>Cultures of innovation of the African Poor Common roots, shared traits, joint prospects? On the articulation of multiple modernities in African societies and Black Diasporas in Latin America. In: LeMeur, Pierre-Yves / Schareika, Nik / Spies, Eva (eds.)(2011): *Auf dem Boden der Tatsachen*, pp. 241-262</u>
- Kone, Z.Y. & Y.P. N'Dri & G.A. Kone (2022): <u>L'introduction en bourse comme résultante d'une vision stratégique des dirigeants: cas des entreprises en Côte d'Ivoire</u>. Revue Française d'Economie et de Gestion, vol. 3 (10), pp. 285-305
- Laurent, Théodore (2025): <u>La Côte d'Ivoire ouvre une bourse des matières premières agricoles, une première en Afrique de l'Ouest</u>. *Le Monde*, 4 May 2025
- **Liesdek**, Boaz (2017): Why do challenges in African commodity exchanges persist? The case of the agricultural commodity exchange in Malawi. Wageningen, Dept. of Mang. Studies, 95 p.
- Mhlanga, D. (2024). Green finance and the evolution of financial markets in Sub-Saharan Africa: A comprehensive analysis. In: Mhlanga, D., Dzingirai, M. (eds): Sustainable Finance and Business in Sub-Saharan Africa., 14 December 2024, pp. 209–225
- **Munro**, Kathy (2019): A delightful 1987 calendar celebrating the centenary of the Johannesburg Stock Exchange. February 23, 2019
- **Neza**, Keren & Yaw **Nyarko** & Angela **Orozco** (2022): <u>Digital trading and market platforms: Ghana case study</u>. In: Temina Madon & Ashok J. Gadgil (eds.): *Introduction to Development* Engineering, pp. 221-246
- **Ngong**, C.A. et al. (2022): <u>Stock market development and agricultural growth of emerging economies in Africa</u>. *Journal of Capital Markets Studies*, vol. 6 No. 2, pp. 185-202
- **Nyarko**, Y. (2025). <u>Rural credit markets and farmers' behaviors</u>. In: Kararach, G., Moreira, E.P., Murinde, V. (eds) *The Palgrave Handbook of Development Finance*. Palgrave Macmillan, Cham., pp. 435–449
- Olomola, Aderibigbe (2015): <u>Understanding the framework for intergovernmental interactions in the implementation of Nigeria's Agricultural Transformation Agenda</u>. NSSP Working Paper 27. Washington, DC: International Food Policy Research Institute, 53 p.
- O'Neill, Dominic (2013): Africa: Fast finance for the new frontier of food. *Euromoney*, September 17, 2013
- Owoo, Robert Dowuona (2021): Introduction to the Ghana Commodity Exchange. Youtube
- **Raji**, A. O. (2016): <u>An evaluation of the Abuja Commodity Exchange Model for agricultural</u> marketing and market development in Nigeria. *Elite Research Project*, Uyo, Nigeria, Chapt. 1-5
- **Robbins**, P. et al (2004): <u>Advice manual for the organisation of collective marketing activities by</u> small-scale farmers. Natural Resources Institute (NRI), University of Greenwich, 104 p.
- Salar, Sahar & H. Izadi & M.R. Pourfakharan (2025): <u>Identification</u>, analysis, and prioritization of <u>effective components of agricultural commodity exchange with a financial foresight approach</u>. *Business, Marketing, and Finance Open*, vol. 2 (2), pp. 138-147
- **Staff Reporter** (2019): <u>Grain hedging: lessons from the farmers who get it right</u>. *Farmers's weekly*, 22 August 2019
- **Tamru**, Seneshaw &Bart **Minten**, Johan **Swinnen** (2021): Trade, value chains, and rent distribution with foreign exchange controls: Coffee exports in Ethiopia. Agricultural Economics, vol. 52 (1), pp. 81-95

- **Tawiah**, Anang (2015): <u>The Ghana Commodity Exchange Series: Collateral Management and Warehouse Receipt Systems (WRS)</u>. *Modern Ghana*, 3. September 2015
- William, Larbi (2022): Smallholder maize farmers market participation on a commodity exchange: The case of Ghana commodity exchange. Russian Journal of Agricultural and Socio-Economic ..., vol. 4, 124, pp. 84-93
- **Woode**, John Kingsley (2024): <u>Commodities</u>, <u>exchange rates</u>, <u>and equity markets in commodity-dependent Sub-Saharan African countries</u>. <u>DSpace Repositorium</u>, June 2024, 198 p.

**Résumé**: [Semer la croissance : libérer le potentiel des bourses de produits agricoles en Afrique subsaharienne]. - La création de bourses de matières premières offre des avantages considérables aux pays à faible revenu et dépendants de l'agriculture qui cherchent à améliorer leurs performances à l'exportation. Un exemple notable est l'Ethiopian Commodity Exchange (ECX), qui a contribué à une augmentation substantielle des exportations de café, bénéficiant aux producteurs grâce à des volumes d'exportation accrus et à un accès diversifié au marché. De même, en mai 2025, la Côte d'Ivoire a lancé la première bourse de matières premières agricoles d'Afrique de l'Ouest, soutenue par la Bourse régionale des valeurs mobilières (BRVM), le marché commun des valeurs mobilières des huit États membres de l'Union économique et monétaire ouest-africaine (UEMOA). Initialement, cette bourse cotait les noix de cajou, les noix de kola et le maïs, et prévoit d'étendre ses échanges au cacao et à une vingtaine d'autres matières premières à l'avenir. L'Afrique compte actuellement 38 bourses réparties sur 29 marchés financiers nationaux, dont 22 sont membres de l'Association africaine des bourses de valeurs mobilières (ASEA). Parmi celles-ci, 12 pays facilitent le commerce des matières premières agricoles : l'Afrique du Sud, le Nigeria, le Kenya, la Côte d'Ivoire, l'Éthiopie, le Malawi, la Zambie, le Zimbabwe, la Tanzanie, le Mozambique, le Rwanda et l'Ouganda. Les bourses de matières premières en Afrique subsaharienne (ASS) jouent un rôle essentiel dans le renforcement des structures de marché en améliorant l'accès aux marchés, en atténuant la volatilité des prix et en intégrant les petits exploitants agricoles aux systèmes économiques formels. Malgré des défis structurels, tels que le déficit d'infrastructures et les besoins de renforcement des capacités, ces plateformes présentent un potentiel considérable pour favoriser le développement agricole durable dans la région. Des données empiriques suggèrent que si la capitalisation boursière a un impact négatif sur la croissance agricole, la valeur des actions négociées exerce une influence positive. Par conséquent, les gouvernements des économies émergentes africaines devraient prioriser l'expansion des marchés de capitaux afin de stimuler la croissance par la création de valeur ajoutée agricole. Des cadres politiques renforçant la confiance des investisseurs par le renforcement institutionnel et le développement des marchés boursiers sont essentiels. Cependant, il est tout aussi crucial de reconnaître le potentiel de transmission des risques entre les marchés, compte tenu de la forte dépendance du continent aux matières premières et de l'interdépendance entre performance boursière et stabilité macroéconomique. La transmission des risques survient lorsque la diffusion de l'information est retardée ou incomplète, ce qui entraîne des effets de contagion où le sentiment négatif du marché se propage indépendamment des conditions locales. En particulier, les fluctuations des prix des matières premières et des taux de change présentent une transmission bidirectionnelle des risques avec les marchés boursiers d'ASS, en particulier sur le long terme. Ainsi, les variations de ces variables peuvent influencer de manière significative la volatilité des marchés boursiers dans la région.

Zusammenfassung: [Wachstum säen: Das Potenzial landwirtschaftlicher Rohstoffbörsen in Afrika südlich der Sahara erschließen] - Die Einrichtung von Rohstoffbörsen bietet einkommensschwachen, landwirtschaftlich abhängigen Ländern, die ihre Exportleistung steigern wollen, erhebliche Vorteile. Ein bemerkenswertes Beispiel ist der Ethiopian Commodity Exchange (ECX), der zu einem deutlichen Anstieg der Kaffeeexporte beitrug und den Produzenten durch höhere Exportmengen und einen diversifizierten Marktzugang zugutekam. Ebenso startete die Elfenbeinküste im Mai 2025 die erste Agrarrohstoffbörse Westafrikas, unterstützt von dem Regional (BRVM) - dem gemeinsamen Wertpapiermarkt der acht Mitgliedsstaaten der Westafrikanischen Wirtschafts- und Währungsunion (WAEMU). An dieser Börse werden zunächst Cashewnüsse, Kolanüsse und Mais gehandelt. Geplant ist, den Handel künftig auf Kakao und etwa zwanzig weitere Rohstoffe auszuweiten. Afrika beherbergt derzeit 38 Börsen an 29 nationalen Kapitalmärkten, von denen 22 Mitglieder der African Securities Exchanges Association (ASEA) sind. Zwölf dieser Länder erleichtern den Handel mit landwirtschaftlichen Rohstoffen: Südafrika, Nigeria, Kenia, die Elfenbeinküste, Äthiopien, Malawi, Sambia, Simbabwe, Tansania, Mosambik, Ruanda und Uganda. Rohstoffbörsen in Afrika südlich der Sahara (SSA) spielen eine zentrale Rolle bei der Stärkung der Marktstrukturen, indem sie den Marktzugang verbessern, Preisschwankungen abmildern und Kleinbauern in formelle Wirtschaftssysteme integrieren. Trotz struktureller Herausforderungen - wie Infrastrukturdefiziten und Bedarf an Kapazitätsaufbau - zeigen diese Plattformen ein erhebliches Potenzial für die Förderung einer nachhaltigen landwirtschaftlichen Entwicklung in der Region. Empirische Belege legen nahe, dass die Marktkapitalisierung zwar das landwirtschaftliche Wachstum negativ beeinflusst, der Wert gehandelter Aktien jedoch einen positiven Einfluss hat. Folglich sollten Regierungen afrikanischer Schwellenländer der Ausweitung der Kapitalmärkte Priorität einräumen, um das Wachstum durch landwirtschaftliche Wertschöpfung anzukurbeln. Politische Rahmenbedingungen, die das Vertrauen der Investoren durch eine Stärkung der Institutionen und die Entwicklung der Aktienmärkte stärken, sind unabdingbar. Angesichts der starken Rohstoffabhängigkeit des Kontinents und der gegenseitigen Abhängigkeit zwischen Aktienmarktentwicklung und makroökonomischer Stabilität ist es jedoch ebenso wichtig, das Potenzial einer marktübergreifenden Risikoübertragung zu erkennen. Eine Risikoübertragung entsteht durch verzögerte oder unvollständige Informationsverbreitung, was zu Ansteckungseffekten führt, wenn sich eine negative Marktstimmung unabhängig von den lokalen Bedingungen ausbreitet. Insbesondere Rohstoffpreise und Wechselkursschwankungen weisen eine wechselseitige Risikoübertragung auf die Aktienmärkte SSAs auf, insbesondere langfristig. Veränderungen dieser Variablen können daher die Volatilität der Aktienmärkte in der Region erheblich beeinflussen.