

Policy Paper

Financializing Commodity Markets: Consequences, Advantages and African Case Study

“The commodity is, at first, an external object, a thing which through its qualities satisfies human needs of whatever kind”. Karl Marx

Otaviano Canuto, Sabine Emran & Badr Mandri

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Africa has a wealth of natural resources, including minerals, agriculture, and energy commodities, which provides an opportunity for the financialization of these commodities on the continent, a concept that has gained global attention and sparked debate on the potential benefits and drawbacks. Although the financialization of commodities has been studied in various contexts, including in African countries, challenges such as liquidity constraints and market readiness have emerged as critical impediments to its widespread adoption. This paper examines the existing literature to clarify the positive and negative aspects of commodity financialization, drawing on global examples and specific cases within Africa. By examining best practices and lessons learned, this paper offers guidance on how African countries can navigate the complexities of preparing for and embracing commodity financialization in order to unlock its potential benefits while mitigating the associated risks.

POLICY PAPER

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Introduction

Africa is full of examples of why commodities should be at the heart of the continent's strategic choices. With its wealth in natural resources, including minerals and agricultural and energy commodities, the continent is in a position to use these commodities to drive progress and prosperity. However, as we have already seen with the Dutch Disease¹, the misuse or misappropriation of resources, especially commodities, can lead more often than not to catastrophic rather than positive outcomes. The financialization of commodities was introduced to the world as early as the 19th century and has been controversial in terms of the results it has yielded and the additional inflation fueled. However, the financialization of commodities is certainly worth considering and numerous examples exist of how this concept has been explored in both developed and developing countries. Several African countries have already explored the financialization of agricultural commodities. However, these studies have highlighted key issues such as lack of liquidity and financial market readiness that need to be addressed in order to decide whether the market is mature enough for the possible financialization of commodities. In this paper, we examine definitions in the literature of the positive and negative aspects of commodity financialization, how financialized commodity markets have emerged around the world, examples from the African continent, and finally best practices and lessons learned on how best to prepare for commodity financialization and harness its potential positive outcomes.

I. Commodities Financialization: Between Vices and Virtues

The definition of commodities may seem, on the surface, simplistic and obvious. However, as noted by Marx as early as the 19th century: "A commodity appears at first sight an extremely obvious, trivial thing. But its analysis brings out that it is a very strange thing, abounding in metaphysical subtleties and theological niceties."

The Aftermath of Commodity Financialization Based on the Literature

Growing market inefficiency is considered one of the most notable issues addressed by commodity financialization. Efficiency is increased by manipulating market liquidity. One of the arguments in support of this theory is that non-commercial speculators enter into both long and short positions, as opposed to entering only long positions by hedging against a real risk, as in commodity risk mitigation. Short selling is therefore triggered when investors believe that a stock price is overvalued and will not provide the expected return in due course, given the disparity between the asset's market value and actual value.

1. According to Brahmabatt, Canuto and Vostroknutova, 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.

From a market integrity² point of view, it is considered that Over the Counter (OTC) derivatives³ enhance excessive speculation in essential food and energy commodities, contributing to an eventual increase in volatility. This draws a link between the *index speculation* and the volatility increase that was beneficial for the *non-commercial* speculators,⁴ but *harmful* for the US economy and society as a whole (Better Markets, 2023).

Similarly, during periods of soaring prices, regulators argue that market prices could be stabilized by limiting short-selling activity on markets. In March 2020, Italy, Spain, France and Belgium stopped the short selling of listed stock on their markets, believing that the practice exacerbated volatility in financial markets during times of stress. In Spain, the financial markets regulator confirmed the ban for all Spanish stocks for a minimum period of a month (Financial Times, 2020). However, the efficiency of these measures in European countries remains a subject of controversy given that, in 2018, a similar ban resulted in higher value for the restricted stocks, and an increased probability of default and volatility on the unbanned stocks (Alessandro, 2018). Accordingly, the debate should focus on the downturn of short-selling positions originating from commodity financialization, rather than commodity financialization as a whole.

On the other hand, commodities markets are dealing with spillover from the stock market to the commodities market. They are thus held accountable for the lack of liquidity, since trading activity and volume are similar in both asset classes for the same period (Marshall *et al.*, 2013).

Investors' increased presence in financial markets has also been linked to the acceleration of price hikes, especially during the 2007-2008 price bubble where speculation contributed generally to an increase in commodity prices (Tang and Xiong, 2014). According to the literature, financialization could lead to enhanced correlation between oil and non-energy commodities. Therefore, the price of commodities becomes no longer subject only to demand and offer fluctuations but also to the behavior of other categories of categories. This impact on price fluctuations is linked also to an increased appetite for risk and the investment behavior of diversified commodity index investors (Bonato, 2019).

By introducing commodity financialization, the behavior of commodities shifts from being a physical asset to a financial asset. The beneficial diversification **previously provided by commodities as an independent asset class** remains limited due to the financialization of these commodities. Accordingly, price fluctuations, especially in agricultural commodities, are likely to fluctuate depending on oil prices. These fluctuations eventually reduce the precision with which future commodity prices can be predicted based on traditional economic indicators (Adams *et al.*, 2020).

On the other hand, institutional investors' investment strategies result in non-fundamental trading called noise trading⁵ and create a second distortion, causing the market to react artificially during higher volume trading days, with financial assets experiencing significant fluctuations in different

2. Market integrity in this context refers to the maintenance of fair, transparent and orderly financial market.

3. An Over-The-Counter derivative refers to the financial contract concluded between two consenting parties that does not imply trading or exchange of an asset but is adapted to the needs of each party. In contrast to open markets, the OTC market implies that a transaction's terms and conditions are only agreed upon between counterparties.

4. This can lead to increased market volatility as their actions can create sudden price movements. For example, if a group of noncommercial traders collectively take positions, this can create sudden price changes from which they can then profit.

5. Noise trading corresponds to the act of trading regardless of fundamental or technical analysis, but rather based on incomplete, inaccurate, or irrational trading. Accordingly, noise trading causes market divergences. According to the Bureau of Labor Statistics (BLS), there were around 50 million non-professional traders in the market as of 2022 as opposed to 2.8 professional investors, a number that is growing due to the emergence of self-directed trading platforms (Corporate Finance Institute, 2022).

directions (IMF, 2011).

The IMF report of 2012 refers to a connection between the financialization of commodities and price volatility. This theory proposes that increased speculative trading in commodities creates “noise” that disrupts price formation based on fundamentals like supply and demand. As a result, commodity prices become more susceptible to destabilization and price increases cannot be fully explained by traditional factors (IMF, 2012). However, the report focuses its analysis on more established causes. These include rising demand, particularly in developing economies where diets are shifting towards protein-rich foods, along with slowing productivity growth in agriculture and the effects of recent weather shocks on harvests. The report suggests that these trends are likely to have a greater impact on food price volatility than financial speculation.

The distortions mentioned in the report point to the impact of commodity financialization on price formation, through the spillover of noise trading. Eventually, commodity prices become subject to destabilization and the fundamentals do not fully explain commodity price increases (IMF, 2012).

While considering the investment objectives of commodities investors, it should be noted that price-induced fluctuations differ from one category to another. Similarly, the investor category that has received the most criticism is that of “non-commercial” speculators. The main argument is that traditional speculators buy and sell futures markets to mitigate the price risk related to physical commodities of interest. In contrast, diversification is not a priority when speculating; rather it was found that investors were more interested in returns, which eventually deepens the dependency between commodities prices and financial markets. (Mayer *et al.*, 2009).

Moreover, the literature points to a difference between the disruption resulting in financial markets from commodity financialization, leading to an association between the financialization and amplification of soaring commodities prices, and the lack of fundamentality in the behavior of commodities on financial markets. However, thanks to commodity financialization, several virtues appeared in the financial markets, sustaining the necessity and utility of allowing investors to access commodities asset classes as an investment vehicle (Plante, 2011).

Virtuous Commodity Financialization: A Multifaceted Outlook Embedded in the Literature

Commodity financialization offers a positive perspective because of its impact on liquidity. Speculators, constantly entering and exiting positions, create a pool of potential counterparties for hedgers seeking to manage risk. Hedgers themselves contribute to short-term liquidity by entering and exiting futures contracts based on their needs. Additionally, speculation can influence price discovery by reflecting market expectations of future supply and demand.

However, the impact of speculators on prices is more nuanced. While intense hedging activity can help stabilize prices by absorbing fluctuations, it does not necessarily drive them up. In fact, effective hedging can mitigate price spikes. Similarly, speculator interest does not automatically translate into lower prices. Speculators can take both long (buying) and short (selling) positions. When they believe a commodity's price will rise, they buy futures contracts, potentially pushing the price up in the short term. Conversely, if they anticipate a price decline, they might sell futures contracts (short positions), thereby exerting downward pressure. Ultimately, the net effect of speculators on prices hinges on the overall market sentiment and their specific actions (Kang *et al.*, 2014).

Before delving into the non-financial factors influencing the surge in food commodity prices, it is crucial to acknowledge that this phenomenon is more closely tied to shifts in consumer preferences

than to the financialization of commodities. Indeed, the rising demand for luxurious tastes could significantly impact market prices, particularly evident in the consumption trends observed in emerging and developing countries experiencing economic growth. These regions are witnessing a transition in dietary habits as their populations become wealthier.

The increased consumption of high-protein foods, for instance, has led to a surge in the price of soybean meal for animal feed. Similarly, the growing preference for edible oils reflects changing dietary patterns in numerous countries. This dietary shift implies that the consumption of grains may either decrease or grow at a slower pace. However, despite this trend, grain prices have not exhibited a corresponding decrease, even a decade later.

This phenomenon can largely be attributed to the concept of price elasticity, particularly evident in dairy products, meat and edible oils, which are considered to have a higher “income elasticity”. This means that as incomes rise, consumption of these products increases proportionally (Helbling and Roach, 2011).

Financially speaking, a different assessment of the link between speculation and liquidity, through an analysis of a broad range of 21 commodities in the energy, metals, grains and agricultural sectors, gives us to understand that *long speculation seems to meet a growing hedging need and thereby improves market liquidity*. Commercial traders are increasingly using hedging to manage risk, but this can have unintended consequences. When there is a lack of counterparties willing to take the opposite side of the hedge⁶, this can drain liquidity from the market. This reduced liquidity can then make it more difficult and expensive for those same commercial traders to buy and sell the commodities they need. As a result, there might be pressure to loosen restrictions on commodity speculation, which could ironically further reduce liquidity and exacerbate the problem for commercial traders (Ludwing, 2019).

In this context, the spillover impact of prices between commodities and different futures markets allows us to understand that commodity prices can also be subject to the influence of macroeconomic variants and that speculation is not a relevant factor in exacerbating commodities’ soaring prices (Bonato, 2016).

Traditionally, supply and demand from producers and consumers were the primary regulators of commodity prices. However, financial markets have become a significant source of demand, impacting price discovery. Recent findings show an extension of price influencers beyond traditional factors. This includes external shocks, correlations with certain currencies, such as oil and USD,⁷ and even interdependencies between different commodity categories.

While the assessment of whether financial market participation has directly increased the influence of external factors on commodity prices remains a topic of debate, it is crucial to explore two key areas. First, a deeper understanding of the organization and structure of commodity financial markets is needed. Second, an analysis of the behavior of commodity prices during periods of high sensitivity to external political and economic factors, along with strong activity from non-commercial speculators, can provide valuable insights. By investigating these aspects, we can gain a clearer picture of how financialization interacts with traditional price determinants

6. Long-buy positions have to be met with short-sell positions otherwise it creates a market movement that shifts towards the buy side or the sell side and limits the liquidity available on the market.

7. Oil and USD have typically moved in opposite directions. A stronger dollar weighs on the oil prices by making it expensive to other currency holders and thus negatively impacting crude demand. In 2019, the oil and dollar moved in the same direction, with the positive correlation peak attained in May 2019. In 2020 and 2021, when demand was subject to the repercussions of the global pandemic, we generally saw the usual inverse correlation between oil and USD.

and potentially shapes the overall price landscape for commodities.

In the 2008-2009 European ban on short sales mentioned above, liquidity shortage resulted from restrictions on short positions. In short, the bans were intended mainly to avoid a collapse of bank shares, which could result in funding problems or even a “full-fledged” bank run. However, a comparison of solvency measures, volatility and stock returns indicates that short-selling banks were not linked to additional stability for banks. Unorthodoxly, the bans were found to correlate with a higher default probability, greater return volatility for banks and steeper stock price declines (Beber *et al.*, 2012).

While speculation might be driving the movement against commodity financialization, the crude oil price spike and collapse in 2007-2008 were mainly a result of increasing global demand (Kuffman *et al.*, 2009).

Finally, among the virtues of commodity financialization mentioned above, it may be beneficial to introduce commodities to financial markets by reducing price asymmetries and cash market volatility on financial markets (Shamsher, 2021).

Financialization and Market Efficiency: A Case Study of Onions

The potential benefits of financialization in enhancing market efficiency through increased liquidity and additional information have been widely discussed (Cheng & Xiong, 2014; Irwin & Sanders, 2012). One notable example often cited by proponents is the case of onions, where the prohibition of financialization led to a significant increase in volatility (Jha and Srinivasan, 2001). Jha and Srinivasan (2001) found that the ban on onion futures trading in India resulted in higher price variability and reduced market efficiency. Similarly, Goyal (2010) argued that the absence of futures trading in onions contributed to increased price fluctuations and reduced the ability of farmers to manage price risks. However, it is crucial to consider the broader implications of financialization on commodity markets. While financialization can bring liquidity and additional information, it can also amplify price volatility and create market distortions (Irwin & Sanders, 2012; Masters, 2008).

In commodity financialization, it is not always one way or another...

The positive and negative outcomes of commodity financialization are not always limited to one point of view. A more hybrid opinion can evoke the dual role of financial traders, who can consume and provide liquidity to hedgers in the financial market. The need for financial traders and hedges to mitigate and control risk can emerge, and it becomes necessary to reduce risk exposure in the futures markets when the risk-bearing capacity of these agents is limited, due to the spillover of events outside the commodity market. (Cheng *et al.*, 2013).

In the same context, commodity financialization positively impacts markets by providing price efficiency improvements in the early stages and a decrease in price efficiency in the later stages of commodity financialization. While commodity producers see higher operating profits when financialization improves market efficiency, they are worse off due to reduced opportunities in futures market trading. (Goldstein *et al.*, 2022).

Are We Heading Towards a Cycle of Renewable Energy Financialization?

The trading of renewable energy remains controversial, given that it represents both the beneficial aspects of renewable energy sources but also a potential threat.

In Africa, the existence of renewable energy sources lays the ground for their introduction to financial markets in the same way conventional commodities embedded in non-renewable energy sources do. So can we trade wind and solar power on commodity markets in the same way as oil, coal, and natural gas?

Today, the trading of renewable energy does not exist in its traditional form. Instead, it exists in Renewable Energy Certificates (RECs). This market-based instrument represents property rights to the environmental, social, and other non-power attributes of renewable electricity generation. RECs are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy resource. They can also be bought as proof for the generation of an amount of electricity from renewable sources (EPA gov, 2023).

In addition to RECs, investment vehicles such as stock or bond offerings and trading on financial markets can provide funding for some renewable energy projects. These instruments can be traded on financial markets, allowing investors to take part in the growth of the renewable energy sector. Introducing renewable energy sources on financial markets makes it possible to enhance investment financing in the renewable energy sector, which is crucial for developing and installing new technologies. Eventually, it is possible to harness more significant growth, thereby generating lower costs and fewer delays in installation resulting in increased competitiveness in renewable energy sources.

However, it is also essential to be aware of the possible downturns, such as potential market fluctuations and instability, and focus on short-term profits in long-term projects. Hence, renewable energy financialization can promote more extensive access to financing and growth but needs to be strictly regulated in order to avoid the potential inconvenience of speculation.

II. Considering Commodity Financialization for the African Continent: Challenges and Opportunities

Even if commodity financialization first occurred a long way from the African continent, the repercussions and implications can be felt across several countries. Trade flow, as the world knows it today, relies on an absence of autarchy and a butterfly effect fueled by globalization. Increased poverty in an African country due to the war in Ukraine and the impact of the Niña in South America on the wheat supply in North Africa⁸ are two examples of factors originating in a different country affecting commodities markets.

8. The weather phenomenon known as the Niña creates severe drought and dry conditions in several parts of the world, endangering the crops of producing and exporting countries such as Brazil, Argentina and the United States, as well as causing additional rain in other areas, such as Australia. Even if a country such as Algeria buys milling wheat originating in France, the damage to crop levels in some of the key producing countries causes a drop in the crop quality of exporting countries, higher market prices and more severe competition.

Organized Commodity Trading in Africa is Embedded in the History of Commodity Financialization on the Continent.

Although it is true that, in terms of commodities, organized financial markets are located in only a few places, their impact is more globalized than their localized. As an example, the most significant commodity exchanges are in the United States of America (Chicago Mercantile Exchange Group and the Chicago Board of Trade), Japan (Tokyo Commodity Exchange), France, Belgium, Netherlands, Portugal, United Kingdom (Euronext and Intercontinental Exchange), China (Dalian Commodity Exchange), India (Multi Commodity Exchange) and Canada. However, since the benefits of introducing commodities to financial markets emerged, the relevance of having organized commodity financial trading places has grown more tangible.

While the high volume of commodity exports from Africa highlights their significance for the continent's economies, this isn't limited to just agricultural goods (Mbeng et al., 2013). It also encompasses valuable exports like minerals, fuels, fertilizers, and oil products, which make up a substantial portion of Africa's exports.

The Relevancy of Commodity Financialization for the African Continent

Among the arguments in favor of commodity financialization for the African continent is the diversity of commodities exported, as highlighted in figure 1, as well as their critical role in today's geopolitical dynamics. In addition to this diversity, which constitutes a vital asset for the continent, a country's desire to integrate commodity financialization and benefit from the momentum provided by their core commodities can be influenced by circumstantial events.

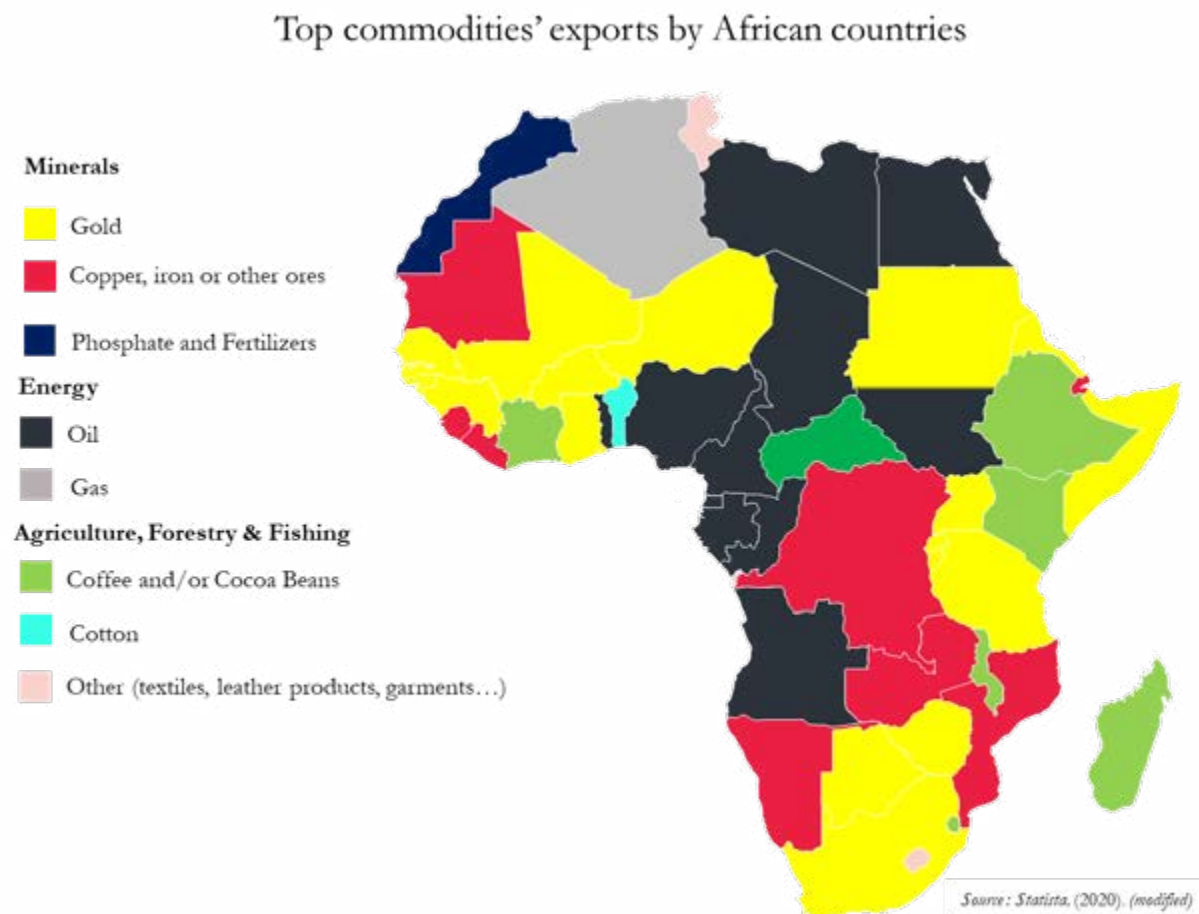
As mentioned above, and as set out in the arguments for virtuous commodity financialization, we can see that the potential benefits of commodity financialization in Africa include access to new sources of capital, and increased transparency and liquidity in commodity financial markets. Moreover, hedging against price risk exposure stands out as an essential benefit, and allows producers to hedge against price swings through financial tools such as futures and contracts, especially in periods of price volatility and market shocks, induced by circumstances such as the war in Ukraine and the COVID-19 pandemic.

In addition, financialization can be a source of further investment on the continent. However, it is crucial to note that financialization is not a "one solution fits all" measure that can be applied without thorough reconfiguration to benefit both investors and producers, according to the commodity type and nature of the market.⁹

9. For example, in 2008, the Ethiopian Commodity Exchange Market (ECX), mainly known for coffee trading, faced opprobrium from the international coffee community. The financialization of coffee in Ethiopia resulted in a loss in the link between producers and buyers and made it impossible for buyers on the market to identify and buy coffee. By 2009, the ECX managed to adapt its trading system to allow buyers from international markets to find an answer to their demands, while maintaining the existing benefits for local producers through competitive sales (Mbeng et al., 2013).

Figure 1

Most Exported Commodities by African Countries in 2020



Now and in the future, commodity financialization presents a double-edged sword for African countries. On the one hand, it offers nations with abundant resources the potential for significant rewards. This includes both non-renewable energy sources, crucial for meeting current global energy demands, and renewable energy sources. The push towards Net Zero emissions and the Paris Agreement will significantly increase the demand for metals needed in renewable energy technologies, creating a strong market for African countries with these resources.

However, commodity financialization can also have drawbacks for African nations. It can lead to a narrow focus on exporting raw materials, hindering the development of domestic industries that add value to these resources. Similarly, due to sanctions on Russia, the European energy supply shortage resulted in a shift in supply destinations for energy sources. African countries, with their oil and gas resources, became an essential source for fulfilling European energy needs. Nigeria became an attractive source of oil supply, Mozambique and Senegal for crucial sources of gas, and Morocco for hydrogen. African countries expect a growth in the demand for non-renewable and renewable energy sources (Foundethakis, 2022).

In terms of energy commodities, for instance, the global oil demand could peak by 2027, whereas global gas demand could peak by 2040. However, if leading countries achieve net-zero commitments, the global oil demand could peak as soon as 2024, and gas demand around 2030

(Leke et al., 2022). Although this acceleration of the energy transition could impact the oil and gas exports of African countries, there is still room for reaping the benefits of commodity financialization in the short to medium term. For example, Nigeria, has abundant natural resources, including zinc (OPEC, 2023), used for green power and solar panels, and iron ore, used in wind turbines (IMF, 2021).

The importance of having developed African commodity trading markets allows for the harnessing of several benefits for the continent from an economic development point of view, such as risk mitigation for actors and more regulation for financial markets on the continent.

Between Harnessing Liquidity and Leveraging Transparency in the African Financial Markets

Several factors can be traced back to the inefficiency of African financial markets. Evidence from the Johannesburg Stock Exchange (JSE) and Nigerian Stock Exchange shows that African markets are the least liquid stock markets in the world, despite their importance, and that their growth potential is immense. In this sense, the number of transactions of both stock exchanges is still insufficient, a figure that could be improved by prioritizing trading frequency rather over trading value (Kenfack et al., 2018). The lack of liquidity in African financial exchanges can also be traced back to limited investor participation, inadequate regulation, lack of strong economic fundamentals, and limited product offerings and infrastructural constraints.

Case Studies of African Commodities: Evidence from the Ethiopia Commodity Exchange (ECX), the Johannesburg Stock Exchange and the Ethiopian Stock Exchange

The Ethiopian Experience

As part of Ethiopia's agricultural action plan in 2003, one of the key action points was to explore the feasibility of establishing a commodity exchange. Previous research conducted by the International Food Policy Research Institute (IFPRI) revealed that much of Ethiopia's cereals trade resembled a primitive open outcry exchange system. Additionally, there was discussion about transforming the existing coffee auction into a commodity exchange system, a transformation that materialized into an electronic auction system in 2005.

In 2005, the Ethiopian Development Research Institute published a report recommending an integrated initiative for commodity exchange development encompassing all aspects of the system, including the establishment of a warehouse receipts system. These recommendations catalyzed the process, leading to the creation of the Ethiopia Commodity Exchange (ECX) in 2006, with substantial support from various development partners such as UNDP, World Bank, USAID, Canadian Development Agency and World Food Programme. ECX commenced its trading operations in April 2008.

Initially, ECX operated with an open outcry trading mechanism, requiring deliveries to be based on warehouse receipts. While ECX had the legal authority to certify third-party warehouse operators, it opted to manage all delivery warehouses itself, issuing electronic warehouse receipts upon receipt of goods. This practice allowed receipts to be traded on the exchange or used as collateral for bank loans. ECX quickly expanded its warehousing network, starting with a single coffee warehouse in April 2008 and eventually reaching 57 warehouses by early 2013, with plans to establish a separate company for warehousing operations.

ECX's trading journey evolved from initially trading grains like maize and wheat, with limited success, to becoming a significant player in the coffee market, largely supported by the Ethiopian government's decision to replace traditional coffee auctions with ECX. This decision led to a substantial increase in trading volumes. In September 2011, ECX obtained monopoly trading rights for two other export commodities, sesame and pea beans, with discussion about potentially mandating wheat and maize trading through ECX in 2013. Moreover, ECX explored the possibility of adding new commodities, including hides and leather, to its trading portfolio, solidifying its position as Africa's largest exchange, following South Africa's SAFEX.

The South African Experience

South Africa is home to one exchange, SAFEX, the largest in Africa, trading well over a hundred thousand contracts a month since 2002. SAFEX was created as a currency trading platform in 1988 and in 1995, in anticipation of the expected deregulation of agricultural trade, including the abolition of fixed-price purchases and marketing boards, introduced agricultural futures contracts. Currently, SAFEX offers contracts for white and yellow maize, bread milling wheat, sunflower seeds, and soybeans. SAFEX prices are an important reference for grain trade in several neighboring countries.

The commodity trade on SAFEX was organized through a new Agricultural Markets Division, which rapidly attracted a total of 84 members who collectively provided the commodity exchange's start-up capital of US\$1 million. The exchange was set up as a not-for-profit mutual exchange. Its trading and clearing platforms were those used for SAFEX's financial products. In 2001, SAFEX was acquired by the Johannesburg Stock Exchange (a for-profit, publicly listed company) but retained its brand name. 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. SAFEX's first successful contract was only launched in May 1996, a futures contract on the country's main staple crop, white maize, launched alongside a yellow maize contract. The provisions of the 1996 Agricultural Marketing Act were set to come into effect on January 1, 1997, and the grain industry needed new mechanisms. SAFEX met the challenge by setting up its contracts around a robust delivery system and using transferable silo receipts, thus simultaneously creating a proper environment for both spot and futures trade.

White maize still accounts for the largest share of trading on the exchange, representing about 40% of trading value. When the Wheat Board was deregulated in 1997, wheat futures were added. Option contracts for maize and wheat were introduced in 1998. The trading volume for maize is now 15-20 times the production volume and wheat is 8-10 times the production volume. From an international perspective these numbers are relatively normal.

Futures and options for sunflower seeds were added in 1999. In 2000, a second white maize contract was introduced to deal with maize qualities below those specified in the original contract; this second contract was discontinued in late 2002 but then reintroduced in mid-2006.

It is worth noting that when agricultural futures trading started in South Africa, there were no applicable laws and regulations. The exchange essentially operated as a self-regulatory organization, with users having signed up to the exchange's rules. SAFEX's maize contracts are settled through physical delivery. This made it necessary to involve the major silo operators. Over time, most of the significant silo operators have indeed registered with the exchange. There are now 19 registered silo operators with a total of almost 200 registered delivery points. Warehouse operators issue electronic warehouse receipts, which act as the delivery instrument into the exchange.

The agricultural futures market in South Africa remains relatively narrow, with SAFEX reporting a total of 12,000 clients for its agricultural platform in 2009. As of 2009, it was estimated that hedgers accounted for 60% of open positions, with the largest number of users being commercial farmers and processors. Speculators and arbitrageurs accounted for the remainder. This is a very low percentage compared to global commodity futures markets. The market has five clearing members and, despite some problems with physical deliveries, there has not been a single default. Clearing members guarantee all transactions and positions of their respective trading members and clients.

The exchange is used by most large-scale producers, in part because the banks that finance them require the producers to hedge their price risk. SAFEX widely disseminates its market data, and the SAFEX price is widely used as the reference price in forward contracts, including for regional grain trade. In 2005, this allowed the government of Malawi to use SAFEX options to protect itself against the risk of future price increases in its maize imports. Malawi later became a maize exporter and used options to protect its export prices. It also replicated a maize buffer stock using related financial instruments.

In 2009, a licensing agreement was signed with the world's largest exchange group, the Chicago Mercantile Exchange (CME). This agreement with CME permitted SAFEX to introduce contracts denominated in the local currency that were indexed to CME contracts (maize, gold, crude oil), allowing proxy access to the international market for South African investors (strict currency controls make direct access impossible for many). The range of commodities traded under the agreement has expanded over the years. In April 2013, heating oil, gasoline, natural gas, palladium, sugar, cotton, cocoa and coffee were added. A similar licensing agreement was signed in 2012 with the Kansas City Board of Trade and, later that year, with the Zambia Agricultural Commodity Exchange.

SAFEX is overseen by the Financial Services Board, established in 1990, which also regulates the Johannesburg Stock Exchange. It operates under the Securities Services Act of 2004, which brought control over the various financial markets and instruments under one umbrella. The Johannesburg Stock Exchange's self-regulatory authority is recognized under this Act. Another Act regulates intermediaries, requiring them, for example, to pass a fit and proper person test before they can be licensed. Implementation of the Act is overseen by the Financial Services Board.

Impact of Commodity Financialization and Speculation on African Financial Markets

The results of a study of the speculative and hedging activities in the South African white maize futures market using proxies derived from trading data indicate a significant presence of speculation over hedging in the period under consideration. In this particular market, volatility is influenced primarily by changes in fundamentals rather than excess speculation, and restrictive regulations could hinder the market efficiency and liquidity needed by stakeholders such as farmers.

It is also possible to link the thinness and the illiquidity of African stock markets to market capitalization, which only represents 48.29% of the GDP percentage on the continent. In comparison, South Africa was ranked first on the continent in 2020, with a 311.45% rate, and Morocco was second with a 54.04% rate. In comparison, other energy commodity exporting countries have higher rates. Saudi Arabia, a significant oil producer, had a 345.35% rate, and Kuwait a rate of 100.03%. However, the highest rate was 1777.28%, registered in Hong Kong, and attributed to factors such as economic stability, low levels of inflation, high-quality infrastructure, a developed financial market as well as strategic location (The Global Economy, 2020). In Saudi Arabia, the growth is mainly related to the sharp rise in oil prices and production power recovery since the COVID-19-induced recession in 2020, as well as contained inflation, despite higher prices for imported commodities (Mati and Rehman, 2022).

When considering the mismatch between regulation and potential for prosperous financialization in African markets, the policies and regulations related to financial technologies are still absent from most African countries, making it difficult for jurisdictions to tackle the inherent risks and reduce the potential of financial technology and alternative finance (UNCTAD, 2022). A lack of liquidity, weak investor base, low market capitalization, poor regulatory framework, and poor accounting and reporting standards are some of the challenges facing the different asset classes in African financial markets, ranging from equities to bonds and commodities (Afego *et al.*, 2015).

Challenges of Commodity Financialization on the African Continent

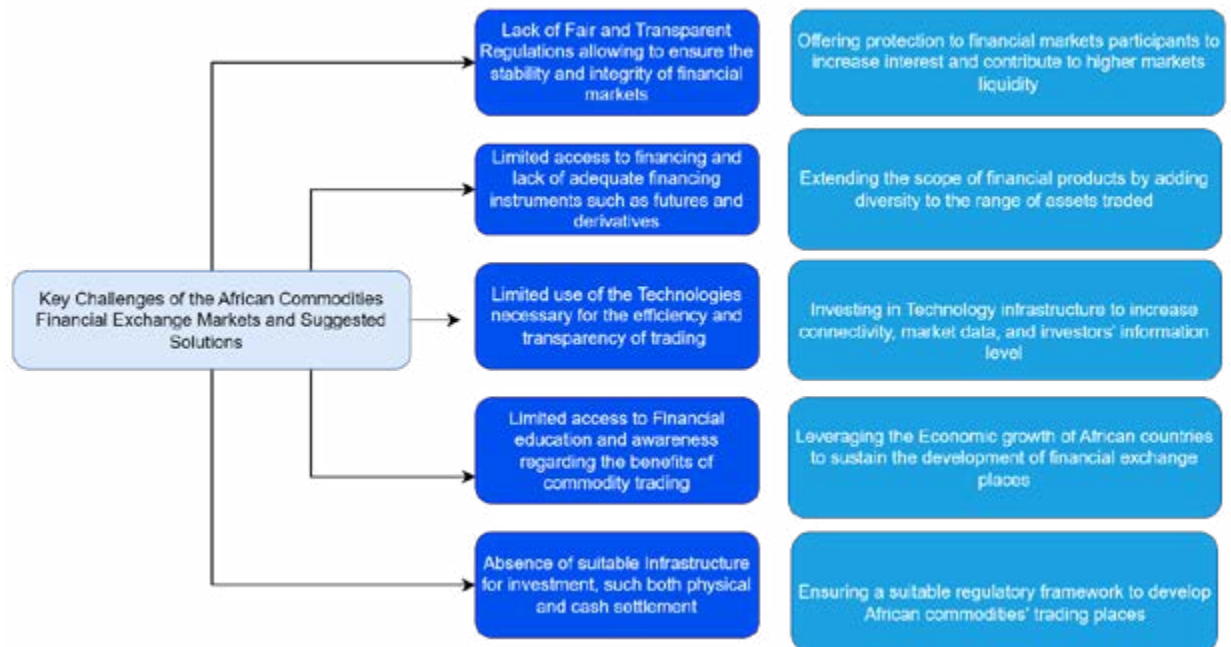
If tackled from the wrong perspective, commodity financialization, especially on the African continent, can lead to negative impacts on the economy. In fact, financialization leads to a 'four low economy' in that scenario, characterized by low investment, low employment, low wages and low productivity, exacerbating distributional conflicts and shaping the domestic political economy. The international financial system, facilitated by technological changes, has led to various effects on global accumulation and economic and social reproduction, including entrenched secrecy and both legal and illicit financial flows detrimental to developing economies. These flows have become part of corporate strategy for tax and wage avoidance, as well as facilitating corruption, including instances of 'State Capture'. In South Africa, such practices have enriched certain individuals and corporate interests, leading to systematic campaigns against state institutions. However, despite evidence of negative impacts, there is a continued push for financial deepening by international financial institutions and national governments, which will generate new financialization trajectories. The South African experience serves as a caution for other African societies against further financial liberalization or promotion as a financial center.

To this extent, the flow chart flow in Figure 2 highlights some of the major challenges faced by African commodity trading markets and potential areas of improvement. The efficiency of African commodity financialization remains strongly linked to criteria such as liquidity, fluidity and information, encouraging actors to contribute to the upgrade of commodity financial markets in the region.

As mentioned in the first part of this paper, evidence from the literature supports the role of commodity financialization in bringing liquidity to financial markets and contributes to improving regulation and transparency, implementing proper fair and transparent regulation, stability and integrity, which eventually leads to a rise in investor interest levels in African commodity markets. Moreover, commodity trading markets in Africa could benefit from more robust infrastructure, such as storage and transportation, thereby enhancing the functioning of commodities markets, especially for physical settlements. In addition, raising awareness of commodity trading benefits could make opportunities more attractive for commodity market investors, while bridging the gap between small-scale producers and investors and eventually leading to higher liquidity.

Figure 2

Challenges and Potential Improvements for African Commodity Trading Markets



The case studies examined in this paper shed light on the complexities and impact of commodity financialization in Africa. The establishment of ECX in Ethiopia exemplifies a deliberate effort to modernize and formalize commodity trading, primarily in the agricultural sector. Through its innovative approaches, such as electronic trading and warehouse receipt systems, ECX has significantly transformed Ethiopia’s commodity markets, particularly in coffee trading.

On the other hand, SAFEX in South Africa represents a more established and mature commodity exchange, with a broader range of contracts and significant trading volumes. Despite its success, SAFEX has also faced challenges, including regulatory gaps and the need for continuous adaptation to changing market dynamics.

The study of speculative and hedging activities in these markets underscores the importance of addressing regulatory frameworks and ensuring market efficiency and liquidity. While financialization has potential benefits, such as liquidity and transparency, it also poses risks, including increased inequality and the facilitation of illicit financial flows.

To navigate these challenges, African commodity markets need to focus on enhancing regulatory frameworks, improving infrastructure and raising awareness among market participants. By promoting fair and transparent regulations, enhancing infrastructure, and fostering investor education, African commodity markets can realize their potential as engines of economic growth and development. Ultimately, a well-functioning commodities market can contribute to broader economic stability and prosperity across the continent.

Conclusion and Policy Recommendations

The trend towards embracing commodity financialization in Africa could be expected to grow in coming years due to the numerous benefits it offers, including liquidity enhancement, improved market efficiency, hedging opportunities, diversification of investment opportunities and more accurate pricing mechanisms. However, alongside these benefits come inherent challenges, such as the risk of market inefficiency stemming from the activity of non-commercial speculators, increased volatility and a greater dependency on financial markets.

In Africa, these challenges can be even more complex, given the continent's unique context. Examples from countries such as Ethiopia and South Africa illustrate the intricacies involved in modernizing and formalizing commodity trading, whether in agriculture, metals or energy commodities. Any efforts in this direction must be approached with caution, taking into account the continent's specific challenges. Leveraging technology and establishing robust regulatory frameworks could offer potential solutions that not only benefit the commodities market but also contribute to overall economic growth.

Determining the right time for African countries to integrate commodity financialization into their agendas is a nuanced issue. The appropriateness of timing varies depending on each country's specific context, including the strength and transparency of its financial markets and its economic resilience. Experiences from different countries around the world have shown varied outcomes in organized commodities financial markets. It is essential that the transition to commodity financialization prioritize the country's development and well-being over investor interests, with any positive impacts for investors being treated as externalities of establishing an organized commodity market. Moreover, timing should be carefully assessed to ensure that the transition aligns with the country's developmental needs and goals.

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About Policy Center for the New South

The Policy Center for the New South (PCNS) is a Moroccan think tank aiming to contribute to the improvement of economic and social public policies that challenge Morocco and the rest of Africa as integral parts of the global South.

The PCNS pleads for an open, accountable and enterprising "new South" that defines its own narratives and mental maps around the Mediterranean and South Atlantic basins, as part of a forward-looking relationship with the rest of the world. Through its analytical endeavours, the think tank aims to support the development of public policies in Africa and to give the floor to experts from the South. This stance is focused on dialogue and partnership, and aims to cultivate African expertise and excellence needed for the accurate analysis of African and global challenges and the suggestion of appropriate solutions.

As such, the PCNS brings together researchers, publishes their work and capitalizes on a network of renowned partners, representative of different regions of the world. The PCNS hosts a series of gatherings of different formats and scales throughout the year, the most important being the annual international conferences "The Atlantic Dialogues" and "African Peace and Security Annual Conference" (APSACO).

Finally, the think tank is developing a community of young leaders through the Atlantic Dialogues Emerging Leaders program (ADEL) a space for cooperation and networking between a new generation of decision-makers from the government, business and civil society sectors. Through this initiative, which already counts more than 300 members, the Policy Center for the New South contributes to intergenerational dialogue and the emergence of tomorrow's leaders.

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