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BUILDING AN ENABLING ENVIRONMENT FOR FUNCTIONING COMMODITY EXCHANGES

USAID-EAT Project | University of Illinois

Agricultural growth and trade in developing countries is often inhibited by the high costs of finding and screening trading partners, determining the quality of goods traded, negotiating prices, enforcing contracts, and coping with price volatility. An active commodity exchange, where multiple buyers and sellers trade commodity-linked contracts, can reduce these transactions costs by facilitating price discovery and managing risk. When commodity exchanges function well they can increase the volume of trade and thereby reduce price volatility. A commodity exchange can be an important element for market-oriented agricultural sector development; however it is not a one-size fits all solution.

Commodity exchanges do not always succeed, and even functioning exchanges can be unsuccessful for specific commodities. Many commodity exchanges introduced in the 1990s in Asia and Latin America have proven to be sustainable, but in Africa, despite substantial donor support, success has been more elusive. Some binding constraints to successful commodity exchanges include small market size, weak infrastructure, an underdeveloped financial sector, lack of a supportive legal and regulatory framework, and unpredictable government market interventions. In many countries, the enabling environment is simply too weak for a commodity exchange to operate effectively. In other cases the size and structure of the underlying spot markets for commodities may be inadequate to support a commodity exchange. Commodity exchanges are only one component of a secured trading system and, by their nature, their success is dependent on the broader functioning of agricultural spot markets.

This briefing paper is meant to inform policymakers and donors about conditions necessary for an operational commodity exchange in a given country. **The central tenet of this paper is that a commodity exchange can only assist in developing a market-oriented agricultural sector where the underlying spot market for physical commodities functions effectively.** Commodity exchanges should be viewed as an expansion and evolution of functioning spot markets, rather than a cure for dysfunctional

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markets. Functioning spot markets imply that a commodity itself is tradable, which requires the existence and adoption of grades and standards; credible, enforceable and tradable contracts; adequate storage facilities; and an open and efficient market environment. Where these conditions are in place, a commodity exchange has the potential to contribute to agriculture-led economic growth.

This paper is divided into three sections that discuss the principles on which a commodity exchange may be founded. Principle one sets out the legal and regulatory framework that enables the existence of a functioning spot market. Principle two outlines the role of public policy in supporting the development of the infrastructure and systems necessary to operate the commodity exchange. Principle three addresses regional approaches and alternatives to commodity exchanges. This brief will be limited to crops and other storable commodities with discrete production periods.[1]

PRINCIPLE 1: A functioning spot market is a prerequisite to an effective commodity exchange.

The establishment of an exchange needs to rest on clear rules for trade and delivery, as well as consistent monitoring to ensure integrity. A structure based on the rule of law and the sanctity of contracts, with the guarantee of recourse in the courts, is an essential starting point. Exchanges normally have an extensive system of rules and regulations governing trading, settlement, and other activities. Market participants agree to abide by these rules and regulations as a condition of their participation. Implementation of the regulations should be conducted by an independent agency, which could be self-regulatory or accountable to the government as an external regulator. The optimal weight of regulation depends on the level of assurance required by market participants. The more trust participants have in market institutions, the more successful a self-regulatory model would be.[2]

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However, even with the right regulatory model in place, the successful operation of a commodity exchange depends on the functioning of the underlying spot markets.[3] Where spot markets are underdeveloped, or substantial market failures exist, a commodity exchange will not function. An underdeveloped market may be fragmented, poorly organized, or have other structural or institutional shortcomings that interfere with buyer-seller interaction and result in inefficiencies that increase costs for buyers and reduce revenues for sellers. If the regulations and commercial laws governing spot markets are incomplete or inconsistent, the basis risk associated with use of the exchange can become so large that trades are not made. This section outlines the key fundamentals necessary for the development of a functioning spot market.

ENSURE CREDIBLE, TRADABLE, AND ENFORCEABLE CONTRACTS

Contracts must define the amount, quality, and location of the commodity traded, as well as an execution date. Other necessary features include the minimum increment for price fluctuations, duties required of buyers and sellers during the delivery process, and deadlines for those duties to be completed. For a commodity exchange to attract broad participation, all of these specifications need to be consistent with existing spot market practices, and all specifications must be standardized so that the only variable is the price.

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[1] The investments required for perishable and/or continuously-produced commodities tend to be even greater than those for storable commodities.

[2] The International Organization of Securities Commissions (IOSCO) is the global standard-setter for securities markets, including futures markets. Its "Objectives and Principles of Securities Regulations" provide a set of best practices for exchanges and have been adopted by over 100 commodity and security jurisdictions around the world.

[3] A spot market here is defined as a cash transaction between two parties for immediate delivery without the use of an exchange or intermediary.

Market participants must have a high level of assurance over the price, ownership, delivery, and payment of the agreed transaction, and contracts must be appropriately sized and balanced for all market participants.

Private agents in the local setting are best positioned with information to define contracts that are consistent with practices in spot markets. The contracts, however, must be enforceable within the legal system, with timely arbitration and guaranteed settlement through a well-financed clearinghouse (discussed below). Mechanisms to establish evidence regarding the contract in dispute and preserve it for legal proceedings must reflect the fact that many agricultural products are highly susceptible to spoilage, contamination, or loss in a very short period of time. In Zambia, the weakness of commercial laws and the costs and time associated with enforcing contracts provided traders with disincentives for compliance in the wake of commodity price movements.[4]

Internal conflict resolution can save time and costs, but exchanges can resolve disputes and enforce rules internally only if market participants value their involvement with the institution. The use of collateral through clearinghouses strengthens the enforcement potential of the exchange. However, if the threat of expulsion from a market is not sufficient to deter undesirable behavior, the exchange will be unable to carry out its own internal regulatory functions. In some cases the ability to enforce its own rules is a function of the number of market participants. Where there are few users of the exchange, it may be difficult to generate funds for the clearinghouse and, as was also the case for the Zambia Agricultural Commodities Exchange (ZAMACE), the exchange may need the participants too much to risk levying sanctions.

ENSURE A FUNCTIONING SYSTEM OF GRADES AND STANDARDS

An exchange can have contracts to trade only if spot markets are governed by an appropriate system of quality grades and standards that enable trading to be conducted 'by description', without participants needing to personally inspect each product being transacted. If quality standards in the spot market do not exist or are inconsistently enforced, then contracts in the commodities exchange cannot be precisely defined, and trades will carry undue risks (such as dumping inferior products). Clear grades and standards facilitate contract enforcement because disagreements over quality can be a basis for defaulting on or renegotiating contracts.

An appropriate system of grades and standards should account for relevant attributes, such as calibrated weights, uniform moisture, maximum levels for foreign matter and other contaminants (e.g. aflatoxin), and standards for various other characteristics (density, color, odor, taste, etc.) specific to the commodity itself. Official grades and standards may be developed either by the exchange or by the government, but in any case should be based on input from industry representatives from the production, processing, and consumer segments.

Grades must be not only enforceable, but enforced. This requires a body with the legal and technical capacity to inspect, grade, and certify. Such capacity can be achieved by the public sector, through a public-private partnership, or by producer organizations. The most successful agencies over time have been those that have been totally independent of both buyers and sellers. In Zambia, the impact of weak grades and standards on the operation of ZAMACE provided the impetus to drive reform of industry-based standards.[5]

Initial complaints from international traders about the use of the Ethiopian Commodity Exchange (ECX) for coffee related to a system of grades and standards that did not recognize relevant quality features, which had been identifiable in the coffee auction that the ECX replaced. As a result buyers could not secure desired qualities of coffee and producers could not be rewarded for supplying that quality.*

[4] Sitko, N.J. and Jayne, T.S. (2011). *Constraints to the Development of a Commodity Exchange in Africa: A Case Study of ZAMACE* (FSRP Working Paper 53). Lusaka, Zambia: Food Security Research Project. http://ageconsearch.umn.edu/bitstream/107461/2/wp53.pdf

[5] Sitko, N.J. and Jayne, T.S. (2011). *Constraints to the Development of a Commodity Exchange in Africa: A Case Study of ZAMACE* (FSRP Working Paper 53). Lusaka, Zambia: Food Security Research Project. http://ageconsearch.umn.edu/bitstream/107461/2/wp53.pdf

* Gabre-Madhin, E. (2012). A Market for Abdu: Creating a Commodity Exchange in Ethiopia. Washington, D.C.: International Food Policy Research Center (IFPRI). http://www.ifpri.org/sites/default/files/publications/oc70.pdf

In Africa, progress on warehouse receipts and related market institutions has been limited. However, interest remains high in a number of countries in Southern and Eastern Africa. Tanzania, for example, is expanding warehouse receipts from exports crops to staple grains, while in 2011 Kenya signaled a commitment to develop the infrastructure for a warehouse receipts system.*

* Onumah, G., (2010), *Implementing Warehouse Receipt Systems in Africa: Potential and Challenges. African Agricultural Market Program* – http://www.aec.msu.edu/fs2/aamp/sept_2010/aamp_lilongwe-onumah-warehouse_receipt_systems.pdf

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ENSURE ADEQUATE STORAGE FACILITIES AND FACILITY MANAGEMENT

A uniform and well regulated system for storage contributes to stability in spot markets and facilitates exchange activity. Contracts need to be consistent with the capacity of available warehouses and be supported by a credible warehouse receipt system[6] or other means of confirming the physical presence of the good. Warehouse capacity can stabilize markets by enabling traders to spread sales through the year rather than selling only at harvest time. Further, legally enforced warehouse receipts can provide assurances on the quality and quantity of stocks, facilitating confidence in commodity exchange transactions. In Nigeria, a lack of specific warehouse legislation has discouraged insurance companies from insuring public warehouses, and has made financing against inventories held in warehouses unattractive to banks.[7]

Warehouse receipts should be enforced by an independent certifying body with responsibilities for auditing the facilities to guarantee that the specified quantity and quality of commodity is in storage and for enforcing bonding or other financial requirements. This may be public, private, a public-private partnership, or as in the case of South Africa, self-regulating through the commodity exchange. In each system, a legal framework for warehouse receipts should clearly define the warehouse receipt's legal status as a document of title, the rights and obligations of the depositor and warehouse operator, clear enforcement procedures, and the security interests and priority for the holder.[8] Each warehouse also needs to be approved or certified by the exchange, to verify the warehouse's physical and financial soundness, as well as any commodity-specific requirements. In addition, the quantities of commodities held in storage need to be reported accurately on a regular and timely basis. This information is critical for the marketplace to properly assess and monitor the overall supply-demand balance to avert squeezes and other market disruptions.

ENSURE TRANSPARENCY IN AGRICULTURAL MARKETS

If the regulations and commercial laws governing spot markets are incomplete or inconsistent, the risk associated with use of the exchange can become so large that trades are not made. The legal and regulatory framework governing spot markets should promote confidence and market integrity through fair and efficient trading and transparency. Market information is the most efficient and effective tool in ensuring transparency and averting manipulation. Improved data collection, dissemination, and use can reduce market uncertainty and provide market participants with sufficient price data from local markets to enable confidence in using a centralized exchange. Private agents normally need a long record of information on price movements and other dynamics in spot markets to develop sufficient confidence in the market to be willing to participate.

Governance mechanisms are also needed to avert price-fixing, particularly in smaller markets. This requires a country to have effective laws and active enforcement programs against collusion and price-fixing in all forms, not just within commodity exchanges. It should also seek to minimize conflicts of interest, such as between traders and brokers. In ZAMACE,

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[6] A warehouse receipt is a certification of legal ownership by a specific individual of a specified quality and quantity of a commodity, in a specified location. A negotiable warehouse receipt can be redeemed by the bearer, rather than a specific individual.

[7] Onumah, G. (2009). *Promoting Agricultural Commodity Exchanges in Ghana and Nigeria: A Review Report*. Geneva, Switzerland: United Nations Conference on Trade and Development (UNCTAD). http://www.unctad.info/upload/SUC/EcowasGhanaCerealMarkets/Presentations/COMEX_Report_Onumah_en.PDF

[8] Hollinger, F., Rutton, L. & Kiriakov K. (2009). *The use of warehouse receipt finance in agriculture in transition countries* (FAO Working Paper). Rome, Italy: Food and Agriculture Organization of the United Nations (FAO). http://www.ruralfinance.org/fileadmin/templates/rflc/documents/The__use__of__warehouse_pdf.pdf

for example, most registered brokers are also traders, which can lead to self-dealing or front-running[9] by of brokers who act inside knowledge of upcoming trades that could move the market price.[10]

PRINCIPLE 2: Public policy should support the development of the infrastructure and systems necessary to the functioning of the commodity exchange.

Commodity exchanges function effectively when they address specific market opportunities or problems of coordination between buyers and sellers. Because these coordination problems are best understood by the actors involved, successful exchanges should be the product of significant private sector initiative. However, the introduction and operation of a commodity exchange is expensive, with physical investment in operational space, warehousing, and communications needed as well as funding to cover operational costs, including screening, dispute resolution, and clearinghouse services. In Africa, the exchanges in Ethiopia, Kenya, Uganda, Malawi, and Zambia have been reported to have cost millions of dollars each (estimates for the Ethiopia exchange have ranged from $20 million to $58 million). Despite these investments, all of these exchanges have yet to show a profit and remain heavily subsidized by donors.[11] For an exchange to be sustainable, costs must be spread over a sufficient volume of trade. In the absence of market scale, transaction costs will be prohibitive to some actors, providing a less liquid market in which trading partners are harder to find, prices more volatile, and market collusion is a higher risk. The thinness of the market is, therefore, a primary determinant of whether a commodity exchange is going to function. In Africa, with the exception of South Africa, the participation of a large number of traders has not developed for any of the exchanges.

Since exchanges become more attractive when there are more users, the public sector may have a role in helping private agents overcome coordinating constraints to create the exchange. In extreme cases (such as the Ethiopian Commodities Exchange, ECX), a government can close alternative markets and channel activity into the centralized commodity exchange. Such coercive approaches will encourage the development of an exchange but do nothing to ensure that the institution will actually meet its goal of reducing transactions costs, stimulating market activity, and tempering price volatility. Public investment in the initial establishment of an exchange, through warehouse construction, exchange building, and marketing information systems may be justified as a means of jump-starting the required coordination, but continuous subsidization of commodity exchanges is inconsistent with the argument for their establishment. More enabling roles for the public sector, which were also demonstrated in the development of the ECX, would be to defray the fixed costs of establishing the exchange and provide a forum for educating potential users, allowing them a voice in the structuring of the exchange.

SUPPORT ADEQUATE PHYSICAL INFRASTRUCTURE

Inadequate physical infrastructure is a constraining factor in the success of commodity exchanges, particularly in Africa. A communications network is vital to providing an effective price information system that ensures product quality, quantity, form, and price information is available across all markets. Reliable systems for transportation, storage, and distribution are needed to ensure credible delivery times and locations, as well as stable transaction costs.

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[9] Front-running is the practice of taking a trading position based upon advance knowledge of non-public trading information.

[10] Sitko, N.J. and Jayne, T.S. (2011). *Constraints to the Development of a Commodity Exchange in Africa: A Case Study of ZAMACE* (FSRP Working Paper 53). Lusaka, Zambia: Food Security Research Project. http://ageconsearch.umn.edu/bitstream/107461/2/wp53.pdf

[11] Robins, P. (2011). *Commodity Exchange and smallholders in Africa* (Topic Brief Series). London, UK: International Institute for Environment and Development. http://pubs.iied.org/pdfs/16028IIED.pdf

Successful commodity exchanges in India, Indonesia, Brazil, South Africa and elsewhere were supported by an adequate transportation and communications infrastructure.

Given budget limitations, governments' investment in infrastructure should focus on projects that have a broad impact on market development. Investments to create a commodities exchange where the basic market infrastructure is lacking are unlikely to yield a return. Where physical infrastructure deficiencies exist, variation in storage and transportation costs can swamp traders' margins and undermine the functioning of a commodity exchange. Since traders' margins are likely to be a small share of the product value, this variation can only be tolerated if the costs do not exceed these margins. Experience in South Asia suggests that when a market infrastructure is in place, addition of specific investments for a commodities exchange can be effective. The experience in much of Africa reveals the converse, where low population densities and low levels of current market activity imply a considerable structural challenge to meeting minimum infrastructural needs.

SUPPORT AN EFFICIENT AND SOUND CLEARING SYSTEM

In an active exchange, a clearinghouse facilitates anonymous trade by guaranteeing the performance of all contracts. A clearinghouse is capitalized by clearing member firms, which serve as intermediaries between the clearinghouse and individual market participants. In addition, a clearinghouse may have letters of credit or other lines that can be called upon in an emergency, such as the collapse of a clearing member firm. Income is generated through the collection of clearing fees on transactions and various other fees for other clearing-related services. In the event that an exchange's participant defaults on a contractual obligation, the customer's clearing firm will assume financial responsibility for its customer's obligations. If the clearing firm fails, then the clearinghouse will take the necessary action, often in conjunction with the remaining clearing firms, each of which has a substantial financial investment in the clearinghouse.

PHOTO BY FINTRAC, INC.

A clearinghouse may be part of an exchange, or it may be a separate entity that provides clearing services to one or more exchanges on a fee-for-service basis. Much like exchanges, clearinghouses normally have an extensive system of rules and regulations governing clearing activities, and market participants agree to abide by these rules and regulations as a condition of their participation. To operate successfully, a clearinghouse needs to have sufficient liquidity generated through fees and contributions, face reasonably low costs of contract enforcement, and operate in a setting with a large volume of successful trades in absolute terms and relative to failed transactions. When there are few market participants and a low volume of transactions, each trade can be large enough to threaten the viability of the clearinghouse, and each individual may have undue influence on its operation. The Brazilian Mercantile & Futures Exchange (BM&F) exemplifies the benefits of a well-financed clearinghouse. The BM&F has partnered with multiple financial institutions and has an average daily volume of 1.7 million trades.

SUPPORT EXCHANGES WITH OPEN COMMODITY MARKETS

Commodity exchanges can play a role in limiting price volatility but do not guarantee that prices will not move with market conditions. However, this level of volatility may be politically unacceptable, particularly in African nations, where rising food prices have led many African governments to intervene in agricultural markets for food security reasons to stabilize prices for cereals. These interventions undermine a market-based system and reduce the likelihood of a commodity exchange successfully operating. In Zambia, the government's inconsistent and unpredictable use of its Food Reserve Agency to administer prices undermines use of the exchange. Likewise, in Malawi, unpredictable changes in trade policy (opening and closing the border) make for sudden and large price swings that encourage participants to renege on contracts, undermining the exchange.

Given the political imperative to ensure stable food prices in many African countries, development of commodity exchanges should assume that intervention in the market for the staple food (maize in most of Africa) is inevitable in the medium-term. Therefore, an

exchange is only likely to be viable if it can attract sufficient trade in the short-term in the contracts for commodities other than the primary staple. These could include export crops or oilseeds, including soybeans. Primary staples, such as rice, are not traded on the successful exchanges in Indonesia and India.

SUPPORT EDUCATION AND CAPACITY-BUILDING

A commodity exchange requires a developed financial system to successfully cover the exchange's transactions. Where financial capacity is limited, market participants must be trained and knowledgeable in financial trading and risk taking to enable use of the exchange. In Brazil, BM&F educates market participants though short- and long-term courses, seminars in major production regions, partnerships with companies and financial institutions, and a bi-weekly publication on agricultural commodities.[12] In addition, financial institutions' commitment to the exchange must be nurtured through the consultative development of procedures. If there are no financial institutions that can sufficiently service the clearinghouse function, then there will not be enough financial development for an exchange.

Successful participation by smallholder farmers in the benefits of a successful commodity exchange depends upon the smallholders aggregating their production into tradable quantities that meet market timelines. Farmer and producer groups are therefore critical for bulking deliveries and making market connections for smallholders. These organizations also play an important role in educating smallholders concerning grades and standards and other procedures, particularly procedures relating to postharvest treatment and warehouse management. They can also have a role in administering standards. In India, farmers' groups combined with effective government extension have been important in linking producers to India's Multi-Commodity Exchange.

PRINCIPLE 3: Regional and alternative approaches may help overcome constraints to domestic commodity exchanges.

Recent research from International Food Policy Research Institute (IFPRI)[13] shows a strong correlation among volatility levels in different international markets. By increasing a domestic market's integration into international trade, a commodity exchange could transmit price volatility into a market that had previously been more insulated. Results suggest that regulatory schemes to address excessive price volatility should be coordinated across markets. Since commodity markets are globally integrated, developing a regulatory structure for a commodity exchange might begin with the question of whether to develop such an exchange at all or rely instead on an off-shore or regional commodity exchange.

OFF-SHORE COMMODITY EXCHANGES

An off-shore commodity exchange offering futures contracts in a good produced or consumed in-country can be a mechanism for managing price volatility. Use of off-shore exchanges can also provide low-income food deficit countries with an effective mechanism to reduce the unpredictability in their import expenditures.[14] For example, the South African Futures Exchange (SAFEX) can be one tool for mitigating cereal price risks for Southern African countries, though the experience with such strategies has been mixed. Similarly, African countries have referred to exchanges in Europe and the US to mitigate risk in coffee and

To promote the use of off-shore exchanges as a risk mitigation tool, the Government of Mexico established ASERCA as a Department within the Secretariat of Agriculture and Rural Development with the purpose of subsidizing the use of options contracts traded on the Chicago, Kansas City, and New York Boards of Trade.*

[12] UNCTAD. (2009). *Development Impacts of Commodity Exchanges in Emerging Markets.* Geneva, Switzerland: The United Nations Conference on Trade and Development (UNCTAD). http://archive.unctad.org/en/docs/ditccom20089_en.pdf

[13] Hernandez, M.A., Ibarra, R., & Trupkin, D.R. *How far do shocks move across borders? Examining volatility transmission in major agricultural futures markets* (IFPRI Discussion Paper 01109). Washington, D.C.: International Food Policy Research Institute (IFPRI). http://www.ifpri.org/sites/default/files/publications/ifpridp01109.pdf

[14] Sarris, A., Conforti, P., & Prakash, A. (2011). The Use of Organized Commodity Markets to Manage Food Import Price Instability and Risk. *Agricultural Economics*, 42(1), 47-64.

* Flores, A.C. (2007). CONASUPO: A Case Study on State-Trading Deregulation. *Canadian Journal of Agricultural Economics* 47(4), 495-506.

Benavides, G. and Snowden, P.N. (2006). Futures for farmers: Hedging participation and the Mexican corn scheme. *Journal of Development Studies* 42(4).

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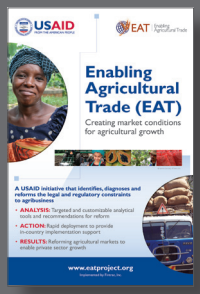

ABOUT THE EAT PROJECT

The Enabling Agricultural Trade (EAT) project, funded by the United States Agency for International Development (USAID), supports the U.S. government's global efforts to create conditions for agricultural growth. USAID established EAT based on substantial academic and field experience suggesting that a sound legal, regulatory, and institutional environment is a pre-requisite to economic growth in the agricultural sector. EAT offers a suite of targeted and customizable analytical tools and implementation support to identify, diagnose, and reform agribusiness enabling environment (AgBEE) constraints that hinder start up and growth across the agricultural sector.

cocoa markets. While an off-shore exchange imposes contract terms that may be poorly suited to local conditions, such exchanges may be more realistic options for many countries that are attempting to build a domestic exchange.

Use of an off-shore exchange may entail differences in currencies, grades and standards, and delivery locations, all of which may lead to higher direct costs relative to trading on a domestic exchange. However, these costs may be offset by savings from the greater liquidity, tighter bid-ask spreads and lower overall transaction costs when trading is concentrated at a single location, even if it happens to be off-shore.

REGIONAL COMMODITY EXCHANGES

Regional commodity exchanges are frequently touted as a means to overcome the economies of scale deficiencies faced by smaller commodity markets, particularly in Africa. Regional commodity exchanges, particularly for locally produced and traded commodities such as maize, have the potential to increase market size and improve access to crops through wider geographical regions and harvest periods. However, while many agents use off-shore commodities exchanges, exchanges' trading contracts defined for multiple countries are exceptionally rare. The costs of establishing such an exchange are high, requiring harmonized exchange rates and trade regimes, equivalent grades and standards, contract enforcement, and macroeconomic stability.[15] Moreover, the complications of establishing credible contracts to trade on a regional exchange are also serious. Even if contracts can be defined that are regionally relevant, the cost and complexity of international contract enforcement may remain an issue. Without effective enforcement, the exchange itself will not be used. In 2012, Africa is slated to open Bourse Africa, a $100 million public-private partnership, based out of Botswana, the first pan-African commodity exchange. However, commodities and contracts to be traded have not yet been announced, and it is not clear that the required conditions will be in place to support contracts.

CONCLUSION

Active commodity exchanges can be a beneficial component of an efficient agricultural marketing system. Commodity exchanges have the potential to lower market collusion, lower price volatility, reduce transaction costs, and provide market participants with accurate price information to make informed market decisions. However, commodity exchanges are only one component of a structured trading system and, by their nature, their success depends on the broader functioning of agricultural spot markets. Constraints affecting the commodity spot market, including the absence of grades and standards, inadequate contract dispute mechanisms, inadequate financial systems, policy unpredictability, and insufficient market participants, can all lead to failure.

As such, a focus on commodity exchanges as a primary tool for market development should not be a priority. Instead, interventions should focus on building the key fundamentals of spot market trading: grades and standards, contract enforcement, storage, and market transparency. Some recent interventions, such as the Eastern Africa Grain Council's work on improving the policy and trade environment, reflect a shifting focus. However, the recent announcement by the Government of Tanzania of its intentions to start the process of establishing a commodity exchange for four commodities (cashew nut, coffee, cotton, and rice) suggests that commodity exchanges are still high on the agenda. Spot market exchanges govern most transactions, which is why getting the fundamentals right is so important; a commodity exchange is an expensive and ineffective solution to a dysfunctional spot market.

[15] Rashid, S., Winter-Nelson, A., & Garcia, P. (2010). *Purpose and Potential for Commodity Exchanges in African Economies* (IFPRI Discussion Paper 01035). Washington, D.C.: International Food Policy Research Institute (IFPRI). http://www.ifpri.org/sites/default/files/publications/ifpridp01035.pdf