

Review

Governance options for price instability: A review of the food grain commodity in Nigeria

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Beyond the recent hike in global food prices, the markets for food commodity are likely to have entered a period of strong instability given the poor state of infrastructure and the recurrent phenomenon of seasonal variation in food. Whether the approaches based on the management of buffer stocks or the market based approach complemented by a few safety nets, the effectiveness has been limited. Yet the challenge of stabilizing prices is more than ever relevant to avoid political turmoil. High and unstable prices can be disastrous for the poor since food staples constitute a large share of poor consumers' expenditures. As an entry point to understanding how to effectively manage food stabilization policies, this article reviews the nature of grain commodity flow in Nigeria, typologies of food price instability and governance options. It argues that a particular governance strategy is not sufficient and given the much uncertainty in the twenty first century, a mix of strategies that are efficient as well as equity loving should be considered.

Key words: Price instability, grain commodity flow, root causes and governance options.

Overview

International prices for major food commodities such as rice, maize and wheat escalated two record times in three years. The price of major cereals surged in the second half of 2007 and the first half of 2008 to reach record levels in nominal US dollar terms, before falling again in the second half of 2008 (Dorosh, 2009). Prices surged again in mid-2010 to June 2011 by 43% in real terms and in the second half of 2011 the index stabilized but at a level about 10% higher than the previous value in 2008 (Conceição et al., 2011). In Nigeria, at the level of high food prices, according to FEWSNET (2008) "most urban and rural markets are exhibiting historically high prices since 2007 and continued to worsen in April 2008. In the Dawanu International, a large northern wholesale market serving regional traders, the prices of sorghum and millet are 47 and 31% higher than their respective four-year averages. The retail price of a 100 kg bag of maize in Saminaka, another major northern market, is 56% higher

than the four-year average. In Southern Nigeria, the price of maize is 34% higher in Ibadan, 54% higher in Enugu, and 40% higher in Abe. Recent food price hikes are linked to supply shortfalls, low stocks, continued increase in food and feed use, and the high growth in demand for biofuels (Minot, 2010). Other causes include government actions and the more integration of the food and energy markets and consequently the link to oil prices. In Nigeria some analysts believe that high commodity prices in Nigeria were not an indication of food crises since in most cases, prices of locally produced commodity are a reflection of poor infrastructure state of the economy which creates glut close to the farm gate and scarcity elsewhere (Azih, 2008). While infrastructure and seasonal variation in production are obvious problems in Nigeria, it is important also to consider price transmission across borders in West Africa. Though Niger's structural deficits in millet and sorghum are overcome by the surplus produced in northern Nigeria, the hike in grain prices in Niger in 2005 was followed by a steep price rises in Nigeria caused by lower agricultural production and buoyant demand stemming from high consumer purchasing power and demand from the poultry and food

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processing sectors. Higher prices in Nigeria caused a drastic drop in grain flow to Niger, while grain flows reversed: Niger was supplying Nigeria (Beekhuis and Laouali, 2007). Highly unstable prices can be disastrous for the poor, because food staples often constitute a large share of poor consumers' expenditures (World Bank, 2005). To systematically situate the problem with a view to addressing it and the impact on vulnerable groups, this article explores the following issues: The grain commodity flow in Nigeria, grain exchange and stabilization institutions, root causes of grain price instability and governance options for price instability.

THE NATURE OF DOMESTIC GRAIN COMMODITY EXCHANGE IN NIGERIA

Intra and inter-state flow

Nigeria's food regime is based essentially on two foods: grains, which provide 46% of calories and 52% of proteins consumed, and root crops/tubers, which provide 20% of calories and 8% of proteins consumed (Interreseaux Development Rural, 2010). Sorghum, millet and maize are widely consumed by most households, but especially in the north, and are used by various industries. Maize is mainly used by the poultry industry as a raw material for feed while sorghum is used by breweries for producing beverages. Sorghum and millet are important for households in the north, particularly the border markets where millet is also heavily traded with Niger. Gari is widely consumed by households in the south and some in the north. Rice is produced and consumed throughout the country. The north is a major production and consumption area for cowpea which flows to the south for use by households and food processing industries (FEWSNET, 2008). In practice, wholesalers are largely responsible for the intra and inter-state flow of food commodity in Nigeria through indirect purchase from rural assemblers or commissioned agents; some buy directly from farmers and others buy from a combination of other wholesalers and commissioned agents. They sell to urban retailers, urban consumers, rural wholesalers and retailers. Of importance also is the flow of imported food commodity such as rice. The flow is quite defined and developed and well established companies move the imported food from the seaport to the various urban and rural markets in Nigeria (Okoh and Egbon, 2005). Food products and live animals imports constitute the third highest in total imports between 2002 and 2005 (Azih, 2008). Domestic rice demand has been about 5 million tonnes a year since 2008, and Nigeria imports more than one million tonnes annually, making it one of the largest rice importers in the world. It also imports more than two million tonnes of wheat (flour) every year. Nigeria therefore continues to be a very substantial net importer of grains. Between 2000 and 2008, these annual grain

imports represented an average annual cost of \$939 million. Nigeria alone accounted for between 30 and 40% of all grain imports in the region (Interreseaux, 2010). However, marketed surpluses of grain flow from the northern part of countries where it is mainly produced to urban centres within the country particularly to the southern part of the country where prices are higher. With urban markets fast becoming outlets for production surpluses, towns and cities absorb more than 50% of cassava and yam production, close to 30% of millet and sorghum crops, 50% of the maize crop, and 72% of domestically grown rice (Interreseaux, 2010).

Unorganised commodity market: Dawanu market

Several markets exist in Nigeria where physical exchange of food commodities takes place. Example of important grain markets in Northern Nigeria are Saminaka, Guiwa, Dandume, and Kaura as well as Ilela, Maidua, and Damasak cross-border markets with Niger. However, the largest wholesale market in West Africa is the Dawanu market and it is connected to markets in the northern states and to some southern markets such as Bodija in Ibadan (USAID, 2010:10). In June 2010, the author visited this market and met with the secretary of the Matasan Kasuwar sabon Gari Traders association (DAWANUA). The market is the largest cereal market in West Africa and was established in 1985 by commodity association groups. There are about 3,000,000 people in this market, 4 persons per store. 4600 labourers, 500 members who are vigilante. There is also migration outpost in the market, police, vigilante and customs outpost. The market operates 24 hours daily, during off season it is less. The major commodities are cowpea, maize, sorghum, millet and rice. These products are mostly produced in the north. The size of the market is 3 km wide, 396 m long. It is not fenced and it is still expanding. The community gave the land (Dawanu Topa Local Government Area). The capacity of the market includes more than 10,000 stores and 6662 warehouses. Each warehouse has a storage capacity of 6000 MT. The price of the store depends on the location of the store. There are retailers and whole sellers. About 500 trailers come to this market to load daily. There are 27 commodity and non-commodity associations. 16 commodity association and 11 non-commodity association such as wheel barrow association. The market is divided into 5 zones labeled A - E. ZONE A is for cowpea and sesame, zone B (groundnut, wheat, cassava chips) zone C (Yam, potato) zone D (maize, millet, sorghum) and zone E (Transportation Park). 7 West African countries come to do business in this market. These are Niger, Chad, Cameroun, Benin, Ghana and Mali. The value chain is from seller to agents and then to buyers. The market belongs to traders and farmers. Traders have ware houses and store. Farmers also have ware houses

and store. In 2004 IITA provided internet infrastructure for a short while. 6 months later IFDC took over. Many people were trained about 96 participants. The project lasted for 3 years. There is no accurate data because the market is not fenced. However in 2005, MITOWA took data of what is coming in and leaving. The project took data for three years and stopped. When the demand is low, traders in this market buy from farmers and store. We also get cowpea coming from Niger and Chad. Traders from Niger or Chad come to this market either to store or to sell. Also when there is surplus production in Nigeria, cowpea can also be stored for sale when price is favourable. There is a road from here going to Maradi and also to all countries in West Africa. The choice of Kano for the market is possible due to the large population and the commercial nature of the state. Also there are big business traders with ready cash to buy grains to store or sell. Not everybody can come to the market and sell but everybody can come and buy. To sell in the market you must join the association or have a guarantee. Traders rarely used the bank because of delays.

Organized commodity market: Commodity Exchange Market, Abuja

The commodity exchange market in Abuja is a more organised market that came into being in 2001 but originally incorporated as a securities and Commodity Exchange (ASCE) in 1998. The aim is to have alternative institutional arrangement that would facilitate marketing of agricultural produce as well as enable market players to manage price risk. Through various instruments such as the Market information system and the physical delivery system, the commodity exchange facilitate farmers, processors and traders in managing production and marketing risks in the farm sector. Between 2006 and 2009, a total 2,874 tonnes of agricultural commodities were traded. Trade in sorghum (white/yellow) represented 56.2% of the total volume trade over the period. Cowpeas and soya beans accounted for 37.2 and 22.5% respectively of the value of commodities traded, while the total value of maize, millet and groundnuts traded represented only 9.1% of the total traded. The major buyers of the commodities were industrial end-users such as Guinness Nigeria PLC (brewery), Grand Cereal and Oil Mills Ltd. (oilseed pressers) and other processing companies. Total expressed demand (in the form of bids) for the major traded commodities from these buyers was over 7,000 tonnes in 2007 and about 10,000 tonnes in 2008. However, in 2007, only 25% of their demand was met while the Exchange recorded no significant trade in 2008. Indeed, while the volume traded in 2006 was 986 and rose to 1,877 in 2007, there was no recorded trade in 2008 and by the end of the first quarter of 2009 only 11 tonnes of groundnuts had been traded (Onumah, 2009).

Public Grain price stabilization scheme: National Food Reserve Agency (NFRA)

Price stabilization is managed through this agency on behalf of the federal government. At the national level it is known as the National Strategic Grain Reserve scheme (NSGRS) while at the state level it is called buffer stock schemes (SBSS). The NSGRS hold 5% of the national output grain in silos. While the SBSS, hold 10% of national output. The objective is principally to provide food security for the nation and minimize inter and intra-seasonal as well as inter and intra-regional variations in the supply of agricultural produce and in the process stabilize commodity prices within all the agricultural markets in Nigeria. (Akinyosoye 2006: p430). It has 7 departments including the food reserve and storage department. This department is divided into storage facility construction and operation; commodity procurement and management; commodity distribution and marketing and storage facility maintenance and rehabilitation. The functions are buyer of the last resort (BLR), maintenance of the strategic food reserve, purchase and release prices approved by the president of the country, reserve stock released on subsidy and used for donation to other countries, guaranteed minimum price (GMP). Key players are farmers groups, cooperative agencies, grain merchants; and individuals. There are instances where reserves can affect markets negatively through the untimely release of food and inequitable distribution or untimely local procurement of food or untimely release of funds for the purchase of grains from farmers or for maintenance of grain storage facilities. For example as documented in Akinyosoye (2005) "funds could not be utilized soon after approval. it took a number of weeks to collect an authority to incur expenditure (AIE) to expend money and about another two months for the cash backing from the treasury office to be ready, before the money can be utilized to execute approved remedial works at silos complexes. Secondly purchases were mis-handled and suffered from excessive foot-dragging in the Ministry making purchases and sales occur at the wrong time. In Ajibola (2000) and cited in Akinyosoye (2005: 433) There was no assurance that the grains distributed from the stock actually got to the interested members of the public or the intended consumers and the procedures for prompt purchase and disposal of grains were not adequately laid out.

UNDERSTANDING THE ROOT CAUSES OF FOOD GRAIN PRICE INSTABILITY

The concept of price instability refers to the fluctuation of prices over time and reflects the short term disequilibria between supply and demand. In most studies the coefficient of variation defined as the standard deviation divided by the mean is used to measure the fluctuation in

price series. In other studies, the concept of price volatility is used and in practical terms is defined as price variation from period $t-1$ to period t . Galtier (2009) identified three sources of price instability: natural, imported and endogenous. The sources can be seen as the root causes because they underlie price instability and allows for explicit analysis of management options.

Natural price instability

Natural price instability arises when there is production instability caused by natural hazards such as excessive rainfall, drought and crop failure. Food production in Nigeria is climate dependent and several authors in Nigeria have looked into the phenomenon of the intra and inter-annual rainfall dynamics and links with crop production fluctuation. Adejuwon (2005) finds that during years with unusually low precipitation, crop yield sensitivity becomes more pronounced. Climate change may increase developing countries' exposure to droughts, floods, and other extreme climatic events that heighten the risk of severe fluctuations in food production. Studies suggest that rain-fed agriculture in the developing world is especially subject to greater stresses from climate change (World Bank, 2005). Management of natural price instability entails reducing the sensitivity of production to natural hazards or by increasing the price elasticity of production. If production is elastic, producers react to a poor harvest by increasing their production plans the following year.

Limitation

Reducing the sensitivity of production to unforeseen events or increasing the price elasticity of production requires the development of technological packages (irrigation services, resistant varieties, and pest and disease management). This policy often involves subsidies for inputs, which may pose major governance problems. Subsidies can also prove to be very costly and political as the unintended often gets the fertilizer. One means of reducing the cost involves implementing conditional subsidies that only take effect when the previous harvest was poor. This policy may also at times be limited by the availability of technologies that reduce the sensitivity of production to unforeseen events or that increase yields. Furthermore, the results of the policy are uncertain, as it is often difficult for producers to adopt the technological packages. Credit and instruments to help cover price and production risks can help to a certain extent, but the costs of these instruments discourage individuals from using them. There is, then, a vicious cycle between price instability and agricultural investment. As producers are risk averse and prices are variable, they do not invest. As

producers do not invest, production is sensitive to unforeseen events and prices are unstable. A prior price stabilisation would therefore appear to be a necessary condition for the success of production stabilisation policies. This seems to be confirmed by the fact that successful past experiments in the "green revolution" always combined access to effective technologies and price stability. This is the case in different countries in Asia and more recently in Malawi. In short, it can be said that in the long term and in situations of natural instability, the most intuitive solution for stabilising prices requires the implementation of efficient production structures, which in turn require a prior stabilisation of prices.

Imported price instability

Imported price instability arises when instability in international food prices are transmitted to domestic markets. In some low-income countries with limited foreign exchange earnings, a sudden increase in food imports could lead to a worsening balance of trade, causing the currency to devalue and making imports more expensive in local currency (World Bank, 2005). Although evidence of imported price instability is mixed, there are studies that find relationships between global and domestic prices while in other studies transmission of global prices are of little importance. For example in the review of sources of domestic price instability, World Bank (2005) finds world prices and exchange rates explaining a very small share of domestic price variability suggesting that most variation in domestic prices arises from domestic factors, such as production shocks. In the 12 countries considered where infrastructure is generally poorly developed, variability in world prices accounted for at least 25% of domestic maize price fluctuations in only three countries while instability in domestic maize production accounted for more than 25% of producer price variability in five countries.

Therefore whether international price instability is transmitted to domestic markets and impacts on households depends on how dependent the country is on food imports, transportation costs and market competitiveness; and on policy measures including trade barriers, taxes and subsidies, and government interventions. Meaning that price instability whether imported or weather induced is further conditioned by poor market infrastructure. For example in many low-income countries like Nigeria, the potential for food price shock is further increased by weak market infrastructure, a poorly developed private sector, and incomplete or poorly functioning financial and risk markets. (World Bank, 2005:1). As reviewed in USAID (1993) food price volatility is aggravated by the characteristic nature of food itself and that of markets in Africa. First food demand is inelastic because staple foods are necessities and consumers do not often substitute other goods for staple foods when their prices increase. When

supplies decline, steep increases in prices are needed to reduce consumption, since the adjustment must happen mostly through income effects. Farmers also have an inelastic demand for food since in bad years they often become net buyers. Hence, not only does marketed supply fall in years of poor production but market demand increases as well, exacerbating price volatility.

Secondly markets are thin because only a small fraction of total food crop production is marketed since much of the food produced is reduced through post-harvest losses and own produced consumption. Thirdly markets are isolated and not integrated so that little exchange occurs between them. In isolated markets, shortfalls in local food production translate to reduced market supplies. Since the demand for food is inelastic, prices must increase sharply to equilibrate supply and demand. Through market integration, the burden of adjustment can partly be spread more broadly, either to other locations (in the country or abroad) or to other product markets. Since supply and demand shocks are not identical in different parts of the integrated market, they at least partly offset each other. This means that in an integrated market, supply and demand vary less than they do in isolated markets.

Endogenous price instability

Endogenous price instability is caused by the instability in the expectations of market actors. Market actors include producers, processors, retailers, consumers and government. As reviewed in Timmer (2010:2), price expectations of market actors are critical to choices about how much to grow, to sell, to store, and to consume. In the absence of complete information about short-run supply and demand factors, price expectations on the part of market actors can drive destabilizing speculative behaviour. Furthermore, the behaviour of government is also attributed to price instability. For example, during the recent food crisis, governments especially India with its export ban and the Philippines with its frantic search for import supplies at any price provoked the panic. Price instability due to endogenous and imported causes is manmade. It is argued in Galtier (2009: 1) that in years ahead, manmade causes will play a major role. Other manmade causes are wars and civil conflict through impact on availability of inputs and access to markets. Man-made sources often exacerbate weather-induced instability, for instance, when Political instability discourages investments in water control and other things that would drought proof" agriculture (USAID, 1993: 7).

Governance options and instruments

Price instability can be seen as arising from three broad sources namely natural, imported and endogenous price instability (Galteir, 2009). Often price instability evolves

from a combination of these sources. For example the hike in grain prices in Niger in 2005 was followed by a steep price rises in Nigeria. Higher prices in Nigeria caused a drastic drop in grain flow to Niger, while grain flows reversed. When price instability is the result of several causes, combined solution must be envisaged while keeping an eye on their limitations and appropriateness in terms of cost and efficiency. Approaches to managing price instability ranges from tools aimed at reducing production variability, control of surpluses and deficits to risk transfer and use of safety nets and emergency food supply to vulnerable groups. Following Galtier (2009), we categorise the management of price instability into public and market based governance. Within each governance type are instruments or tools to achieve targeted objectives. Public or market based governance is determined by the level of involvement of the public sector or the private sector and in some situations there are complementarities between types (Table 1).

Market based governance

Modernization of domestic grain trade and private storage

These instruments help to control grain surplus and deficits by facilitating arbitrage across time and space and therefore appropriate to manage natural and imported instability sources. Domestic grain trade involves promoting the emergence of efficient institutions and infrastructure for the marketing and storage of food commodities. Private storage, such as village granaries, can help communities to better match local supply and demand. Private sector storage investments in developing countries, either on-farm, in villages or regionally, are constrained by poor policies and a poor enabling environment generally. At the farm level, capital costs of new storage and storage technology are prohibitively high.

Modernization of production

The instrument aims at reducing the sensitivity of production to natural hazards such as drought or by increasing the price elasticity of production. The instrument involves subsidies for inputs, the availability of technologies that reduce the sensitivity of production to unforeseen events or that increase yields. One limitation is that subsidies can prove to be very costly and political as the unintended often gets the fertilizer. However in the long term and in situations of natural instability, the most intuitive solution for stabilising prices requires the implementation of efficient production structures, which in turn require a prior stabilisation of prices.

Table 1. Governance types of price management instability.

Governance type	Nature	Instruments	Disadvantages
Public based		Public stocks	<p>-More effective in moderating downward price movements than price surges.</p> <p>-It is very costly. Attempts to defend a price ceiling and reduce the average level of food prices over time can lead to substantial costs.</p> <p>-Appropriate storage infrastructure is extremely costly to acquire, and buying the food stock and holding it is also very expensive.</p> <p>-vulnerable to speculative attacks</p> <p>-If speculators perceive that the stocks held by the stabilization agency are insufficient to maintain the target lower price level, they will compete to buy the entirety of the stock in order to take advantage of likely profits</p> <p>-Poor management makes buffer stocks ineffective. There is repeated evidence that releases are made too late to influence food prices or to safeguard food security.</p> <p>-stock runs the risk of running out if prices remain high over a long period</p>
		International trade and Border control using quotas, taxes , restrictions	<p>-In certain situations, borders cannot be controlled. This is the case for land borders in Africa, which are particularly porous in light of the smuggling and corruption</p> <p>This strategy would nevertheless seem better suited to countries very close to achieving food self-sufficiency than to countries with a high deficit. This strategy also generates perverse effects at a collective level: generalised protectionism makes international markets narrower and thus more unstable. Furthermore, it reduces the efficiency of resource allocation, thereby generating higher production costs (and higher prices) (Bricas et al. 2009).We therefore find ourselves without an efficient instrument for controlling borders and thereby countering imported instability</p>
	Income stabilization resulting from price instability	Emergency food reserves, safety nets	-
	Regulating surpluses and deficits	modernization of domestic trade and private storage	<p>-It is a complex affair that requires certain prerequisites without which it becomes ineffective.</p> <p>-It must be profitable in itself to survive and to allow subsequent innovations.</p> <p>-Warehouse receipt systems involve high costs (standardisation, control of the qualities and quantities specified on the warrants.</p> <p>-Efficient infrastructure and institutions for the cereals market requires investments that are only possible if the risks are not too high.</p>
Market based	Increasing the price elasticity of production /Mitigation of the sensitivity of production to climate risk	Technology development and production modernization	<p>-Often involves subsidies for inputs, which may pose major governance problems.</p> <p>-Subsidies can also prove to be very costly and political as the unintended often gets the fertilizer.</p> <p>-Outcomes are uncertain, as it is often difficult for producers to adopt the technological packages.</p> <p>-Credit and instruments to help cover price and production risks can help to a certain extent, but the costs of these instruments discourage individuals from using them.</p>
	Risk transfer	Futures markets, forward contract and insurance	<p>-Too much speculators can cause frequent and erratic price changes.</p> <p>-In most cases this is beyond the reach of smallholders due to costs, poor access to information, the nature and quality of crops produced by smallholders, and other.</p>

Futures markets

The aim is to transfer price risk and protect economic actors against food price instability. Futures markets perform several functions: they provide the instruments to transfer price risk known as hedging; they facilitate price discovery and offering commodities as an asset for financial investors. There are two types of traders in the futures markets, the commercial and non-commercial. The commercial traders utilize futures contracts to “hedge”, or insure their crops or inventories against the risk of fluctuating prices. For example, processors of agricultural commodities, who need to obtain crops, buy futures contracts to guard against future price rises. The non-commercial or speculators buy and sell futures contracts and take on the risk of future price fluctuations to gain a risk premium. They are “speculators as they have no involvement in the physical commodity trade in contrast to “commercial” traders. Speculators are necessary for the performance of both these functions. They buy and sell futures contracts and take on the risk of price fluctuations to earn a profit on price movements. By doing so, they provide the market liquidity which enables commercial traders to find counterparties in a relatively costless manner. Too little speculators results in low liquidity and potentially in large seasonal price swings. Too much speculators can cause frequent and erratic price changes.

Public based governance

Public stocks: Public or buffer stock helps to prevent prices from falling too low, by removing the surpluses from the market and in the event of poor harvests; there is supply to the market to prevent prices from soaring too high. Thus helpful in managing both natural and imported price instability. However, it is argued that public stock mechanisms are limited in reducing the volatility of prices and more effective in moderating downward price movements than price surges. In the case of a price surge, a public stock agency can only release in the market what it has previously bought, and once its stock is exhausted there are no further means to curb price increases. Secondly attempting to stabilise prices using public stocks is potentially very costly. Attempts to defend a price ceiling and reduce the average level of food prices over time can lead to substantial costs. Public stocks set to defend against price spikes are also vulnerable to speculative attacks. If speculators perceive that the stocks held by the stabilization agency are insufficient to maintain the target lower price level, they will compete to buy the entirety of the stock in order to take advantage of likely profits. Appropriate storage infrastructure is extremely costly to acquire, and buying the food stock and holding it is also very expensive. Domestic procurement, food releases from buffer stocks and trade

programmes require continuing budgetary allocations to cover any operational losses occurring in domestic and international trading. In times of price increases, such costs can escalate to significant levels, rendering buffer stocks ineffective in containing price surges. Poor management makes buffer stocks ineffective.

International trade and border control: Employed to manage imported instability and involves increasing the level of openness to the international market by reducing taxes and quantitative restrictions on imports and exports. It also involves regulating import and export flows to stabilise domestic availability using taxes, subsidies, and quantitative measures. The advantage of this instrument is that it presents an unlimited stock. This means that a small state can also find the quantity required on the international market to cover a food supply deficit or absorb surpluses. Thus international trade is seen as an important price stabilization instrument.

Transfers, safety nets and food emergency aid: Relatively smaller food security emergency reserves can be used effectively and at lower cost to assist the most vulnerable. Unlike buffer stocks that attempt to offset price movements and which act as universal subsidies benefiting both poor and non-poor consumers, emergency food reserves can make food available to vulnerable population groups in times of crisis. In addition, emergency reserves of relatively small quantities of staple foods will not disrupt normal private sector market development which is needed for long term food security.

CONCLUSION

The study explored the following objectives, namely the grain commodity flow in Nigeria, the food grain problem, grain exchange institutions; root causes of grain price instability and governance options. The aim is to understand why food price instability should be a key policy issue. The food price problem can be seen from the angle of high rise in average level of prices and the fluctuations from year to year or season to season. At the level of high food prices, most urban and rural markets are exhibiting historically high prices since 2007 and continued to worsen till date. Highly unstable prices of food can lead to inefficient agricultural production decisions, especially when markets for credit and risk are poorly developed. The cost can be disastrous for the poor since food staples constitute a large share of smallholder farmers' incomes and poor consumers' expenditures. Several factors are linked to food price problem ranging from natural to manmade. However in years ahead manmade causes will play a major role including wars and civil conflict through impact on availability of inputs

and access to markets. While various governance strategies have evolved over the years to address this issue, this article argues that a particular governance strategy is not sufficient and given the much uncertainty in the twenty first century, a mix of strategies that are efficient as well as equity considering should be considered.

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