THE DYNAMICS OF GRAIN MARKETING IN BURKINA FASO

VOLUME IV

RESEARCH REPORTS 5-6

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AN ECONOMIC ANTHROPOLOGICAL ANALYSIS OF GRAIN MARKETING IN BURKINA FASO: INTERPRETATION BASED ON FIELD OBSERVATIONS .. MAHIR SAUL

GRAIN MARKETS IN THE VOLTA NOIRE REGION OF BURKINA FASO ..... IRA GREEN

Burkina Faso Grain Marketing Development Research Project

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Center for Research on Economic Development, University of Michigan
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LIST OF ACRONYMS

ACDE	Agence Canadienne pour le Développement de l'Enfance
ADRK	Association pour le Développement de la Région de Kaya
ADS	Agricultural Development Support Project
AVV	Autorité des Aménagements des Vallées des Volta
BCEAO	Banque Centrale des Etats de l'Afrique de l'Ouest
BICIA	Banque Internationale pour le Commerce, l'Industrie et l'Agriculture
BIR	Bureau des Institutions Rurales
CDG	Centre de Gestion
CDR	Comité pour la Défense de la Révolution
CDRY	Comité de Développement de la Région de Yako
CEDRES	Centre d'Etudes et de Documentation pour la Recherche en Economie Sociale
CENATRIN	Centre National pour le Traitement d'Information
CERCI	Centre d'Etudes et de Recherches sur les Cultures Irriguées
CFJA	Centre de Formation de Jeunes Agriculteurs
CIDR	Centre International pour le Développement Rural
CILSS	Comité Permanent Inter-état de Lutte Contre la Sécheresse dans le Sahel
CNCA	Caisse Nationale de Crédit Agricole
COE	Conseil Oecuménique des Eglises
COOP	[Groupement villageois] coopératif
CRED	Center for Research on Economic Development
CRS	Catholic Relief Services (CATHWEL)
CSPPA	Caisse de Stabilisation des Prix des Produits Agricoles
CTFT	Centre Technique Forestier Tropical
DAAF	Direction des Affaires Administratives et Financières
DEP	Direction des Etudes et Projets
DIRC	Direction des Institutions Rurales et du Crédit
DSA	Direction des Services Agricoles
ESSEC	Ecole Supérieure des Sciences Economiques
FAO	Food and Agriculture Organization of the United Nations
FCFA	Francs CFA (50 FCFA = 1 franc français)
FDC	Fonds de Développement Communautaire/Save the Children
FDR	Fonds de Développement Rural
FED	Fonds Européen de Développement
FEER	Fonds de l'Eau et de l'Equipement Rural
FOVODES	Fondation Voltaïque du Développement et de la Solidarité
FSU	Farming Systems Unit
GS	Groupement [villageois] spontané
GVPC	Groupement villageois précoopératif
HER	Direction des Services de l'Hydraulique et de l'Equipement Rural
HIMO/PSTP	Programmes de travaux publics à haute intensité de main-d'oeuvre
IBRD	International Bank for Reconstruction and Development
ICRISAT	International Crop Research Institute for the Semi-arid Tropics
IFPRI	International Food Policy Research Institute
IGHV	Institut Géographique de la Haute Volta

INSD	Institut National de la Statistique et de la Démographie
IR	Institutions Rurales
IRAT	Institut de Recherche Agronomique Tropicale
IRCT	Institut de Recherches du Coton et des Textiles Exotiques
IRHO	Institut de Recherches pour les Huiles et Oléagineux
MCH	Maternal and Child Health
MCODIM	Ministère de Commerce, du Développement Industriel et des Mines
MDR	Ministère de Développement Rural
MET	Ministère de l'Environnement et du Tourisme
OFNACER	Office National des Céréales
OMR	Organisation du Monde Rural
ONAC	Office National du Commerce Extérieur
ONBI	Office National des Barrages et de l'Irrigation
ONERA	Office National d'Exploitation des Ressources Animales
ONG	Organisation non-gouvernementale
ORANA	Organisme de Recherches sur l'Alimentation et la Nutrition Africaine
ORD	Organisme Régional de Développement
OVPB	Organisation des Volontaires des Pays-Bas
PAM	Programme Alimentaire Mondial
PAN	Plan Alimentaire National
PDAHB	Projet de Développement Agricole des Hauts-Bassins
PDAOV	Projet de Développement Agricole de l'Ouest Volta
PDRI	Projet de Développement Rural Intégré
PIS/AFRICARE	Plan Intérieur de Séguénéga
PPIB	Plan de Parrainage International de Boulsa
PPIK	Plan de Parrainage International de Kaya
PVOV	Projet Vivrier de l'Ouest Volta
RR	Reconnaissance Rapide
SAFGRAD	Semi-Arid Food Grain Research and Development Program
SATA	Service de l'Alimentation et de la Technologie Alimentaire
SIX S	Se Servir de la Saison Sèche en Savanne et au Sahel
SOFITEX	Société Voltaïque des Fibres Textiles
SOVOLCOM	Société Voltaïque de Commercialisation, maintenant appelée FASO YAAR
TWIS	Training Women in Sahel
UGVO	Union des Groupements Villageois de l'Oudalan
USAID	United States Agency for International Development
UVOCAM	Union Voltaïque de Coopératives Agricoles Maraîchères

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RESEARCH REPORT 5

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MAHIR SAUL

Consultant's Report

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INTRODUCTION

This study of the food grains market in Burkina Faso is based on field research in the central and western parts of the country.[1] The grain markets in the Sahel developed after World War II and acquired their present configuration especially following the political independences of the late fifties and early sixties. Two critical developments that shaped them were the growth of major cities, and the events relating to the drought of 1972-73. Despite such recency these markets contain elements inherited from an older period. The following section presents a brief sketch of this history for Burkina Faso as an introduction to the ensuing study on the current grain market.

1. HISTORICAL DEVELOPMENT OF THE GRAIN MARKET IN BURKINA FASO

West African long distance trade has captured the imagination of observers, native and foreigner alike, for numerous generations. What is less often evoked is the existence, along its side, of short distance exchanges, within or between villages, that were encouraged and facilitated by long distance trade. In territories where the relationships between localized communities were relatively peaceful and market places institutionalized (such as in the Mossi Kingdoms) such transactions took place within them. Where relationships between local communities were marked by the frequent eruption of violence (such as the western part of what is now Burkina Faso) they largely depended on the existence of a network of travelling traders.

Prior to World War II grain was one of the commodities that entered such short distance trade. The demand for grain was created on the one hand by the important activity of beer brewing (Heritier, 1975) and on the other by sporadic local deficiencies in food and seed grain resulting from microclimatic variations as well as by differences in the productive capacities of households. Some ethnographers have documented a deep seated cultural value against the sale of foodstuffs in various parts of West Africa, and this has occasionally been interpreted as an indication that the grain trade started only when the destruction of the precolonial organization and ideologies made it possible to overcome the reluctance to sell. In reality, prohibitions concerning the sale of foodstuffs usually apply only to the collective stocks of organized farming groups. Outside of this frame there often exists also a domain of individual production, and the product of this individual effort usually found its way into the local market.

It is well known that in the area around present day Bobo-Dioulasso Mandé traders known by the generic name Jula engaged in long distance trade. Local exchanges were in the hands of a much more imperfectly described group, the Zara. The Zara speak the same language as the Bobo, the majority farming population in the areas they inhabit, a language incomprehensible to Jula-Bambara speakers even though it is of ultimate Mandé origin. But they set themselves off from this farming population by using variant cultural traits (such as the use of dress). Unlike the

Bobo, historically the Zara have also given evidence of political ambitions. They dominated the village of Sia (one of the two nuclei of Bobo-Dioulasso), but groups identifying themselves as Zara were scattered throughout what are now the provinces of Houet, Kossi and Mou Houn (the former Departments of Hauts-Bassins and Volta Noire) (Le Moal, 1980:16-27). By frequent travelling Zara men and women maintained a network of systematic barter and exchange, using cowrie shells and other currencies when possible. Their mobility was facilitated by the success of a quasi-state apparatus imposed in the south of the Volta river by one of the clans in Sia in alliance with or under the subordination of princes belonging to the Watara Jula of Kong.

The trade was typically conducted in the following manner: Zara women traders would establish themselves in a village and associate themselves with a man who had settled there partially as a representative of the dominant Zara clan in Sia. In this village the women spent a good portion of the year, exchanging small quantities of grain for dried fish and salt (part of which was of northern origin and derived from long distance trade) or other condiments processed from local inputs by themselves, and brewing and selling beer and other alcoholic beverages. They lived off the income generated by such activities and apparently they often also contributed to the sustenance of their men with it. They operated in this manner in a number of villages (where they had links through kinship or affinity) throughout the year, periodically transporting some of the accumulated commodities from one place to another to take advantage of relative scarcities.

The colonial administration introduced a new element in exchanges of grain, first by establishing a stable demand for troops and the initially weak but growing administration, then by throwing the local population into the realm of European currency through taxation and wage labor (army recruitment, public works, and employment in private enterprises), and finally by providing the political and institutional groundwork and the support for the establishment of large import-export companies which completed the articulation of the local economy with the West European market.

In the 1940s the territory of what is now Burkina Faso was covered by six big companies,[2] who had trading posts in the 12 districts of the

colony and who performed 75 percent of the import trade and 100 percent of the export trade (Bollinger, 1974:18). The export trade consisted of collecting oil products; most importantly shea nuts, but secondarily also peanuts and sesame. Shea nuts are collected from an unplanted but protected tree (Butyrospermum Parkii); they have to be freed from the flesh of the fruit, dried on fire and shelled before sale, an activity exclusively in the domain of women. Shea nut exports remained important throughout the period of independence and is a vital element of the balance of payments of the country at present.

In this period the sector of commerce that was left to African merchants included activities such as trading kola nuts, condiments, foodstuffs and livestock. Groups often having an ethnic basis (mostly Yarsé and Hausa in the central and eastern regions, Jula and Zara in the west) controlled these activities. It is from such groups that most of the members of the commercial elite which emerged in the following period originated. Several traders I interviewed in Bobo-Dioulasso and Ouagadougou either had a parent who engaged in such precolonial trade or started in their boyhood as an apprentice with some one from a similar background.

In the 1940s privately owned trucks became available and created the possibility of engaging in a (largely illicit) trade with Ghana and Nigeria, taking animals there and bringing back consumer goods, made all the more profitable by the barrier between the British and French monetary zones.[3] The beginnings of a few of the largest fortunes of today lie in the activities of this period.

The dendritic system that the European companies established for export crops spawned the channels that are responsible for the flow of both grain and export crops today. The European companies were only marginally interested in cereals; but they bought some to supply the military camps and the civil administration. They even had some surplus which they sold in cities. This allowed a few men to enter the retailing business by purchasing in bulk from them and selling in the marketplace in the city, an activity dominated by women until that time.

The export of oil crops reached one of its climaxes right after World War II but started to decline in profitability after 1952, partly due to

reasons related to the conditions of the world market, and partly (probably more largely) to the enforcement of new regulations concerning the employment of labor in French West Africa (Coquery-Vidrovitch, 1975).[4] The companies first attempted to transfer the trading posts to their former managers, and when this failed they started to collaborate with the local merchants which until they they had seen as their competitors. By the end of the 1950s they had totally withdrawn to the centers of Ouagadougou and Bobo-Dioulasso. The collection of export crops was assured by a system of agents who operated with cash advances from the exporting companies.

As these developments were taking place, the two main cities were also growing rapidly. Their population was increasing at the same time as the amount of grain produced by their resident population was falling because of higher densities. The colonial administration speeded up this process by closing large areas to farming in order to develop them as urban neighborhoods.[5] When urban demand became significant the agents for expatriate companies started, on the side, to purchase cereals and products such as locust beans (seeds of Parkia biglobosa for which there is a local use) on their own behalf. By that time some of them had accumulated enough money to finance such side occupations by themselves but the funds provided by the European companies were still helping them to diversify their endeavors.

Most of the large merchants I interviewed came to the cities in this post World War II period; many of them started as export crop collection agents, others were doing something else but added export crop collection to their activities. Some of the most successful combined several of these activities. Trade with the British zone continued to be very lucrative. In this period small one-ton vehicles became available for sale, making it thus possible for Burkinabè entrepreneurs to go into the business of transporting passengers and goods. Some opened beer-dispensing bars. With such combinations it was possible to consolidate the moderate fortunes that came into being in the preceding period.

As is the case elsewhere (for example in Senegambia, see Appleby, 1985), European export-import companies could not survive national independence, but apparently for very different reasons. Around the time

of Independence, first agents of companies in Abidjan, then brokers working for competitors in Europe started to infiltrate the thus far protected enclave in search of export crops. They tried to coopt the African agents of the locally established companies, or convince other wealthy merchants to collaborate with them. The transference of political power to national elites further enhanced the possibilities opened to local businessmen. Especially in Bobo-Dioulasso one observed the rise to prominance of a new group of Mossi (most of Yarsé, origin from the provinces of Yatenga and Passore) against the older strata of Jula and Zara origin.[6]

A few years after Independence the established European companies totally abandoned the export business. In the sixties and early seventies some of these companies and many small enterprises which belonged to individual Frenchmen merged with each other or stopped operating altogether. They also sold off huge tracts of real estate which they owned in the commercial sector of the city, all of which was bought by the rising local businessmen with the help of large bank loans.

The military government that came to power in 1966 established a marketing board (Caisse de Stabilisation) and initiated short-term loans to further stimulate the Africanization of the export crop sector. The BND (National Bank of Development, where the government has 55 percent participation) took the leadership in providing low interest short-term "Buying Campaign Loans". The other major banks of the country, all of which have some government participation, followed suit. These loans obviated the need for African merchants to affiliate themselves with European importers for lack of capital. The combination of these loans with other general business loans gave unprecedented financial power to some new risers. Some merchants I interviewed hinted that political connections were vital in obtaining these loans. Two of the most important grain merchants in Bobo-Dioulasso of Jula origin declared that they never had any loans, in the case of one despite numerous attempts. This stands in contrast to some other cases, for example a prominent businessman I met in Ouagadougou, whose outstanding loan balance was said to be around 500 million FCFA.

The trade in cereals gradually grew to acquire an importance close to that of export crops. According to traders' accounts the great boost to

it was the 1972-73 drought. They also maintain that since the drought, northern provinces that used to sell some grain to the capital, such as Yatenga, Passore, Sanmatenga appear to be always deficitary. This situation created a further need for inter-regional trade.

Today the channels that extract export crops and those that bring grain to the city are the same. At the lowest level it is the same personnel that are involved in both. Buyers in village markets collect everything, sometimes on behalf of two different people; for example, buying export crops for an employer and grain for themselves, or in some other combination involving a host of village products such as fowl, small ruminants, condiment plants, and honey. There are some differences in organization between oil and food crops at higher levels, because export commodities are simply progressively bulked and remain at the export points of Ouagadougou and Bobo-Dioulasso. In contrast, grain goes through an intricate set of loops, bulking and debulking in its movement toward the consumer. At the level of the largest merchants and at that of city retailers one can see some specialization in export crops and in grain respectively. This is due to the fact that the most important national merchants prefer to deal with larger values and have relinquished the trade of grain, or engage in it only under special circumstances which will be discussed later; while the retailers face a much larger demand for cereals than for any other agricultural product. In most other levels specialization is weak and most traders deal with several kinds of foodstuffs and export crops, often favoring one or the other depending on the season and the condition of the market.

2. PARTICIPANTS IN THE GRAIN MARKET

There have been two attempts to classify participants in the marketing of grain in Burkina Faso. Ouédraogo (1983:67-79) in his pioneering work notes that conventional distinctions made on the basis of function, such as wholesaler and retailer, are not particularly enlightening in West African cereal trade and suggests the use of a larger set of criteria such as ownership of capital or title to the product, the type of remuneration for the service, and the range of the actor.

In his study of the Eastern ORD (provinces of Gourma, Gnagna, and Tapoa) he identifies six types of middlemen between the producer and the final consumer: (i) The national wholesaler-retailer whose base of operation is outside the region and who has a large capital base, often owns his own trucks, and has a network of his own agents but also buy from smaller traders in regional markets. His primary role is to take large quantities of grain out of the region, but occasionally he may sell there too. (ii) The regional wholesaler-retailer whose base of operation is one of the regional markets but otherwise is like (i) only at a smaller scale. Regional traders in the east, the author notes, are also involved in cattle trading to coastal countries in which they make substantial profits, and some own other businesses such as grain mills, general stores and bars. Both (i) and (ii) collect export crops also, which they sell to export outlets or to the national oil plant. (iii) The local independent trader has a small capital base and who operates over a small range of a few markets and villages. He has no trucks but may own a bike, or motorbike, or sometimes a donkey cart. Sometimes he also engages in retailing consumer goods in the markets he attends. (iv) The trader's apprentice, who is not a salaried employee but often is either related to or lives in the same compound as the merchant to whom he is associated. Usually he is not remunerated but his daily expenses are borne by the merchant; he may be rewarded at the end of a trading period depending on his success, and he anticipates ultimate rewards such as a partnership or the capital needed to start his own business. (v) The commission agent, who like the apprentice does not take title to the grain but purchases for others at the village level. What distinguishes him is that he works for a fixed commission per sack. His association

with a particular merchant lasts a shorter time and occurs during the buying season. (vi) The village resident buyer, who also buys grain on behalf of and with the funds provided by a third party. He operates in one village only where he is a resident. Ouédraogo adds that this type of middleman is provided with less capital than (iv) and (v). Finally, but not as part of the list, he discusses the landlord, who is also a village resident. He neither takes title to the grain nor is he involved directly in purchasing it, but provides functions similar to those described elsewhere such as providing hospitality, information, storage place, and he is used also to provide contacts (cf., Cohen, 1969; Hill, 1966 and 1971:311).

Sherman (1984:99) who conducted her research in Manga (province of Zoundweogo) introduces the additional criteria of storing behavior and primary occupation and further distinguishes between: (i) middlemen, who are farmers who consecrate two days a week to attending a large regional market to buy grain in small quantities and usually sell it at the end of the day to agents of merchants from the capital; (ii) large bush-traders, who are scaled down versions of regional traders, and (iii) peasant-traders, who are successful farmers who assemble a small capital and purchase a few sacks of grain in the harvest and keep it until prices go up. All of these categories would be local independent traders in Ouédraogo's terms.

One can take into consideration yet other categories from the perspective of big cities. As a matter of fact Sherman (1984:28,29) makes another list where she combines Ouédraogo's types with hers and adds urban retailers, women traders and important national institutions such as cereal banks and agents of OFNACER.

Those roles are even less clear cut than the lists suggest. An actor can start in one of these roles and then move to another as well as being involved in more than one at any single time. For example, a regional trader can buy in one area himself, but also send an apprentice to a few surrounding village markets to buy from farmers and independent village traders. The same agent may also coordinate a few village residents to collect grain on behalf of his employer. Distinguishing women traders may imply that sex is used as a further criterion. In reality women actors occupy different roles throughout the nation, as some are local

independent traders, some urban retailers who receive their supply from urban wholesaler-retailers, while others sell in the city but specialize in buying in one restricted producer area and have a clientele consisting primarily of brewers. There are some men who occupy similar niches. One also encounters in the Bobo-Dioulasso area women who would qualify for the category of large bush-traders. For example a Zara woman married in Baré has a cattle herd of about 100 head, operates the village mill, and purchased all the millet marketed in the area in 1984, building a stock of 150 sacks according to fellow villagers and becoming the only supplier of millet in the village. There are women at even higher levels in the marketing chain, for example a wealthy woman of Ghanaian origin in Ouagadougou, whose name was mentioned by several traders I interviewed as one of the largest national merchants having wholesale contracts with many organizations.

In Bobo-Dioulasso one can also recognize a distinct type in the broker, also an independent trader, whose more important function, however, is to put together large quantities from several other traders in a very short time when an order is placed by a visiting merchant from one of the large consumption centers. The importance of the role of broker in West Africa has been noted by Hill (1971:315) who suggests briefly that the practice among the Hausa can be attributed to the continuation of a habit of farmers to sell grain through the medium of their wives. It is clear in Bobo-Dioulasso, though, that brokers also have an economic function arising specifically from the conditions of urban transitory trade. Their success depends on a web of acquaintances, perfect information (where it is difficult to get), and ability in negotiating prices. The broker charges a commission and often also a storage fee per sack when his store or shade is used for bulking before the shipping of the lot.

Thus, by introducing richer ethnographic details one can be carried away to produce longer and longer lists of market participants. But this discussion is useful only in so far as it facilitates the description of some concrete aspect of the market to which I will now turn.

3. PATTERNS IN THE FLOW OF GRAIN

The grain collection system of Burkina Faso functions in such a way as to supply Ouagadougou, the capital, and also the generally deficitary provinces in the north of the country (see Berg, 1977:2,4). Depending on regional rainfall conditions, there may be secondary deficitary areas that vary each year. This is the basis of the need for a national trade in cereals.

Demand for grain is not limited to urban and inter-regional factors. The so-called surplus areas can also have local deficit pockets, and of course, even in overall surplus conditions every consumption unit is not guaranteed a sufficiently large stock of grain for the year. Some individuals oversell in the post-harvest period and have to buy back in the preharvest period (Harris, 1982:37-38). Besides that, there is the need of brewers and small market restaurants. Hence, there is also a considerable local level demand for grain (cf., Hill, 1971 for Northern Nigeria) on which I will elaborate later.

Generally speaking, Ouagadougou is first supplied by its immediate hinterland within the province of Oubritenga and the provinces to its east, south and west. Most of the storing takes place in the cities and grain sources start to dry up quickly as the dry season advances. The largest merchants attack the reserves of Bobo-Dioulasso in the west and Diapaga in the extreme east, the two areas which can also supply the city until very late in the season when grain becomes very scarce elsewhere.

Bobo-Dioulasso is the center of a large and very productive area. A large part of the grain collected in Bobo-Dioulasso ultimately goes to Ouagadougou and Yatenga, so that the city has the character of an entrepôt as far as the grain market is concerned. But the same is true to some extent even for the capital, Ouagadougou, which is itself a source of supply for the northern provinces. In all this travel, the grain changes hands several times, moving within and between regional plexuses. The collection of grain from producing areas to the major city is usually undertaken by merchants established in that city. Merchants of other cities related to it by major roads come to buy wholesale. The common pattern was for merchants from Ouagadougou to go to Bobo-Dioulasso

and for merchants from Yatenga to come to Ouagadougou as well as (but to a smaller extent) to Bobo-Dioulasso. Now one can also find lesser traders in Ouagadougou who fill a truckload (between 7 and 10 tons) of grain and take it to Ouahigouya to sell it to lesser retailers there, a type of minor entrepreneurship at the expense of the big merchants. The considerable costs of this distribution mechanism heavy in personnel are borne by the producer and consumer, even though, because of the great number of intermediaries involved, the profits for some middlemen may not be very large.

The search for a larger share of the aggregate margin have introduced some far reaching new elements in this situation. In the last few years many merchants from Yatenga, Sanmatenga, Soum and Dori provinces attempt to purchase part of their grain needs directly in the producing areas that feed the city of Bobo-Dioulasso, and they are doing so with increasing intensity. This is upsetting an established trade structure in the western part of Burkina Faso and pricing practices associated with it, as will be shortly explained.

4. TRADERS AND MERCHANTS OF BOBO-DIOULASSO AND OUAGADOUGOU

The old merchants of Bobo-Dioulasso have maintained a rural collection system which originated in the mid-1950s with the export crop trade. This allows them to buy a large part of the grain marketed in the harvest and immediate post-harvest periods at minimal costs. In this section I will describe the nature of this system and its recent development.

A critical element in this system are the village resident buyers, usually successful farmers themselves who at harvest start purchasing grain or export crops with the money advanced by the merchants. The relationship between merchant and buyer-farmer can continue for more than one generation. In N'Dorola I met a young farmer who had been a resident buyer for one of the most important grain merchants in Bobo-Dioulasso. His father had worked in the same capacity for the merchant's father. The young man told me that at some point he went to Bobo-Dioulasso to work as a painter. There he was in close contact with the merchant who acted as a patron for him in the city. After a few years the merchant's son who had started to take over the business suggested to the young men to go back to his native village and work for them to replace his aging father. The young man eventually learned all the skills necessary for the job, and during our conversation in the presence of other farmers there was some good humored joking about the tricks he would do measuring grain or the false measures he would use.

New merchants who want to break into grain collection have a disadvantage in the collection of grain from rural areas. Some Mossi merchants, however, managed to break into this activity by establishing similar relationships with farmers from among the Mossi migrants to the west who are kinsmen or originally from the same village as themselves.

Many merchants explained that this type of association on the basis of large cash advances to residents have become very risky in recent times and are much less common. For most of the major city merchants a more important type of associate are the agents who travel extensively in the purchase areas. These are the people referred to as apprentices or

commission agents by Ouédraogo and as assemblers by Sherman. Most of them are relatives of the merchants. Many are their sons who may in the future take over the business. Some among them, however, may be only distantly related or are complete strangers and are affiliated to the household through a practice analogous to fostering. A major Jula merchant of the younger generation in Bobo-Dioulasso explained this practice to me in this way: "When you are rich, poor relatives send their sons. Our house was full of 'brothers' some of whom hardly related at all, but who still live with us and whom I could not address with any other term. They all work for the business." Another important Mossi merchant, this time from among the groups whose involvement in the grain market is more recent said: "For example I have this young brother in the village who does nothing. I bring him here. I buy him a moped. I give him money. He goes, spends 15 days in the producing area. He travels around. He purchases 5 sacks over here, 10 sacks over there. When he has enough he rents a cart to bring them to a central point and sends me a word. I send him a truck and he brings his purchases here. You give him a commission to encourage him." Such agents if they are capable may advance and may have a chance of becoming independent one day.

The more important the merchant, the larger is the number of such agents that work for him. Often each one of these agents specializes in one region which in time he may come to know better than the master who sent him there in the first place. The method of operation of agents differs depending on the region and the relationship that the merchant has previously developed. If there are several resident buyers working for the same merchant in the area, the travelling agent's function may primarily consist of coordinating them, providing them with cash, and arranging for the transport of the grain to Bobo-Dioulasso. If it is a new area of operation then he tries to identify independent traders who can supply large quantities of product or large farmers who are said to have large surpluses to sell. Even if most large transactions take place outside of the marketplace (see below) the markets still play an important role in the collection of product on the basis of a system of agents. The agents attend many village markets so that large producers or "peasant-traders" who have stocks can contact them to make special deals. At such markets, agents also buy grain at the end of the day from

"local independent traders" who can be men as well as women. It seems that in the villages close to Bobo-Dioulasso women traders who started by purchasing red sorghum to supply city brewers have in the last five years become prominent by increasing their market share. In the village of Baré, for example, of the seven traders regularly attending the market and who were active in the surrounding areas as well, all but one were women. Some of these women have warehouses in the city. At the end of the day, or later in the city, they can make deals with other traders or agents, selling them part of their purchases such as export crops, and buying from them other grains such as red sorghum or millet. Usually they sell this grain directly to brewers or consumers in neighborhoods where they live, out of their compound, in the days they don't attend markets. The existence of such women handling important volumes in other places was confirmed by merchants in the central market of Bobo-Dioulasso.

In certain instances the agent spends a little time in a large number of localities. In other instances he settles down temporarily at a landlord's and acts like a village buyer. He may also train and supervise new candidates as village resident buyers. When he has to reside in a village he may pay a rent to the landlord. A merchant actually mentioned that it is preferable to have the privacy of one's own room and pay a rent rather than be accommodated in the more conventional style as a guest (which imposes more diffuse obligations such as favors and gifts) in somebody's home. Again one of the Jula merchants in Bobo-Dioulasso explained that there are still many places in he areas where he operates (western Burkina Faso) where the world view of a closed economy is dominant. In such circumstances the role of the agent is more than that of an organizer. He is also a missionary: he has to change mentalities by showing the advantages of market principles. Farmers in such closed areas may have a tendency to think in the very short-term and to be dishonest with the merchant. They may receive a payment for a product to be delivered, for example, and then sell it immediately to somebody else before the first buyer has a chance to pick it up. In the words of the merchant, the trader has "to get them in the habit" of selling surpluses.

The merchant may also take advantage of a close relative who lives in a surplus area as a farmer, using him as a resident buyer in his village

and as an agent in the larger area. Such arrangements were at times described to me as partnerships where each person operates with his own separate funds, keeping the profit of grain purchased with his own money, while the collaboration is on the basis of one person supplying all the grain from the bush and the other operating a store in the city market to sell it.

A single merchant will use several of these types of agent. Some of them will be closer and more trusted. There may also be a hierarchy among agents, some being advanced to the position of regional managers, replacing the employer in more activities as he gets older or has to spend more time in the city to manage his larger business. One of the largest grain and export crop merchants among the Mossi operating in Bobo-Dioulasso explained how from a non-related person such a trusted "executive" could be produced. The merchant adopts, he said, a young man recommended to him by a relative or acquaintance. After teaching him some basics he gives him a sum like 50,000 FCFA (sufficient to purchase 8 or 9 tons of grain, which is the average amount loaded on the trucks) and sends him to a region he knows personally very well. The apprentice is also given the names of local residents the merchant trusts, and who work as resident buyers or who can act as landlords. He goes to one of them, entrusts his money to him and spends some time in the area with his help and guidance. He may repeat the same in adjacent areas until he spends all the money of the employer. When he returns the employer calculates the profits that can be derived from the purchase, judges the expenses that the apprentice reports. If he decides the candidate is trustworthy he sends him again. This relationship continues for several years. The final reward is to give him a wife and large cash gift and thus the apprentice becomes an independent trader himself.[7] A few of the traders interviewed started their careers in this way, and some of the former apprentices are said to have surpassed their former masters in success.

The dislocation of the agent from the employer may be more gradual, even when the former has accumulated considerable resources of his own. A relevant example is that of the successful trader I met in Baré. He is the son of a minor merchant who used to take livestock from Dori to Ouagadougou. In the mid-1970s a prominent national businessman involved

in the import as well as export business brought him to Bobo-Dioulasso and sent him to the Soumousso region to buy export crops and grain. When his employer died a few years later the agent decided to remain with one of the educated employees of his master who now set up an export business of his own and opened a nice office in the central market. Presently the former agent is an immensely successful trader in his own right. The association with the export merchant continues in export crops which he still buys for a fixed commission with funds the merchant provides. But he uses his own funds to buy grain, the volume of which surpasses that of the export crops. He has two warehouses to store his own grain, one in Waré, a highly productive village off the highway, and the other one in the city.

The stars of the markets of western Burkina Faso are such able agents supported with funds of major merchants, often themselves supported with large bank loans. Their financial power seems to be inexhaustible; they have great mobility and numerous contacts. When they operate in the marketplace they have the most advantageous positions. They are price leaders. They set the strategy to be followed by other minor traders in whatever market they are attending. These points will become clearer in the discussion of the structure of local markets.

One important point concerning city merchants in this discussion is that the cost of the grain they receive varies depending on the way they have acquired it. They obtain some grain directly, some at the end of several links. Even in the same day and from the same producing area they may pay different prices for grain brought by an independent trader, by a commission agent and by an apprentice. The apprentice agents themselves may pay different prices to producers during the day, and may purchase an additional amount at the end of the day from other collectors in the same market by paying them a profit above the common purchase price. In some circumstances merchants in the city purchase from each other as well, adding again a moderate profit above a common cost. Depending on the cost factors involved, the profit margin will be different for the different lots of grain they may store and sell together.

Ouédraogo (1983:91) suggests that the greater reliance on resident buyers in the Eastern ORD can be explained by the fact that marketplaces

are less common in the region for historical reasons, as well as by the lack of roads and lower population densities. Reliance on buyer agents, however, continues even when markets are more common. Farmers who have large quantities to sell do not want to bring them to the marketplace; even if they contact the trader in the marketplace the transaction takes place in the house of the farmer whence the buyer transports the grain later. Buying agents also try to identify possible major sellers and contact them individually. This is one way traders compete with each other, but they also generally prefer to deal with sellers in a one to one relationship.

The villagers may take the initiative in establishing a market. This was the case in Baré where a new market was established in the selling season of 1983. Before that, the villagers went to Soumousso, which is 11 kms away, to buy primarily consumer goods. Farmers who had fields towards the south-west of the village may be close enough to Soumousso to take their produce there, but prior to the establishment of the market most products and grain in the village was sold through the medium of resident buyers. After the establishment of the marketplace the ritual chief of the village formally prohibited the sale of grain outside of it.[8] During my year of research, however, I observed that despite the prohibition, transactions of grain sales involving the largest volumes always bypassed the marketplace, eve though they were conducted with traders who visited it. This may be partly due to the fact that nowadays many farmers store their grain far from the village. Farmers who have large farms and who produce a lot of surplus store their crop in grainaries they construct by their field residence, instead of bringing it to the village as customary. In the case of migrant farmers who do not have a village residence there is no other alternative; but such was the trend even among residents of the village who are ambitious farmers and who spend most of the year in their farm house and come to their main residence only during major ceremonies for short periods of time. Such farmers clear a path that is passable for trucks throughout the year so that traders may come and pick up their grain. But even many farmers who do bring their grain to the village, as most people in Baré still do, if they have several sacks to sell at once, may notify "their" trader instead of bringing them to the market. Then the trader pays a visit to

the warehouse in the compound of the farmer when the market is over to strike a special deal.

The situation is similar in southern Mossi country. In Bentenga (province of Zoundweogo) despite the existence of a village market and the proximity of Kaïbo, a large regional market, two resident buyers collected 25 tons of white sorghum and large quantities of other grains in the first two weeks of January 1979 (Saul, 1982:243). Only red sorghum was usually taken to the market while most food grains and shea nuts were sold to resident buyers. We can also note that, in contrast to what is reported for the Eastern ORD, the village chief was not the resident buyer in Bentenga. The chief was of course on good terms with the merchants operating in the village, but one of the buyers was the operator of one of the village mills (he was doing it for the owner of the mill) and the other was the teacher of the rural school who was collaborating with a merchant from the capital.[9]

The largest grain merchants are not necessarily the most important businessmen of the country. In terms of amount of capital controlled there is a top group of national import-export merchants above them. Some grain and oil crop collecting merchants discussed here may also engage in the export business itself by purchasing crops from smaller agents to add to their own, but they are not the major figures in this activity. Those who want to engage in export have to supply at least 80 tons to the marketing board at prices fixed below those of the world. Merchants who can sell large quantities above that amount can afford paying prices higher than the marketing board, while small merchants who take the risk to export themselves may not collect enough product over the initial 80 tons and therefore end up with an average price lower than what they could obtain from big exporters. This has an effect of limiting the number of merchants who can export directly. The ability to collect and export large quantities of crop is due to the control of large funds. For reasons that were not clear (but that may be related to the new policies adopted by commercial banks as a result of the change in government) in 1984 much less commercial bank credit was available in Burkina Faso. This fact, coupled with that of an unproductive shea nut season, made it that only two individuals in Bobo-Dioulasso (who are known to be also the largest rice importers), and four individuals (one

being a Lebanese) and one company in Ouagadougou made direct exports in 1984. These individuals besides exporting shea nuts, invariably engage in truck transport and the import of rice, cement, salt and other basic commodities. Some of them were involved in grain commerce in the past. It seems that none of them are involved in it at present. The reasons for this will be explained in Section 8.

Part of the grain trade in the major cities takes place in the central markets, but as in the case of villages, market paces are not the exclusive or even the most important locus of exchange for grain. The central market of Bobo-Dioulasso and the major markets of Ouagadougou (such as the Grand Market and Sankariaré) are planned developments with numbered square stalls that are assigned by the municipality to individuals. The stalls may come with a shade or the trader builds a light structure of wood and corrugated metal sheets on it. Most of the original assignments have later been divided further by the occupant so that the size of the resulting stores is highly variable and there is an intricate pattern of rights related to them that is unofficial.

The largest of the grain merchants do not have a store within this marketplace itself but -- as is the case for the top group of importer-exporter-transporter businessmen -- are located outside of it in large buildings which they own in the business district of the town and which include warehouses, offices, sometimes even a residence. The group of grain merchants who operate from a large stall within the marketplace have a smaller volume of sales, even though some of these marketplace merchants may still have a very large volume of sales. In Ouagadougou traders say that when Sankariaré was established, a separation on the basis of function took place. Wholesalers moved to the new place while retailers remained in the central market. Due to the difficulties of physical mobility this distinction has now been blurred, and many recognize that some merchants in the central market operate at a larger scale than others in Sankariaré.

At the level of the largest grain merchants, one difference between Ouagadougou and Bobo-Dioulasso is that in the latter all grain is collected directly in producing areas, while in the capital merchants collect only part of the grain in their own hinterland. The same is true

for big consumption centers such as Ouahigouya or Yako where, in addition to what is collected by agents and independent traders in their producing areas, a very wealthy group of merchants are responsible for bringing in large quantities of grain from Ouagadougou and Bobo-Dioulasso.

5. MERCHANTS IN SECONDARY MARKET CENTERS

Trade in grain developed earlier and with more intensity in the hinterland of Ouagadougou and produced a rural structure that is different than the more open situation described for Bobo-Dioulasso. The provinces of Oubritenga, Ganzourgou, Namentenga, Boulgou, Zoundweogo, Naouri, Sisili and Bourkende which constitute this hinterland swing between surplus and deficit situations in different years. With the pressure exerted on their markets in the 1970s a class of local big merchants have emerged following a path closely resembling that of the big city merchants. These local merchants diversify in the same type of activities such as transportation, a general store, export crop collection, sometimes village mills or herding, all scaled down at a regional level. Again as in the case of big city merchants, a critical point in their advancement was large bank loans which became available to them only in the 1970s. As a result of this phenomenon, several traders and merchants in Ouagadougou affirmed that it is almost impossible to purchase directly from producers in this region.

One example of such a regional merchant is a large trader from Pisila whom I met in Ouagadougou. He has been involved in the oil crop and grain trade since the early 1960s first as an agent and later on his own behalf. In the 1960s the trade in cereals was relatively less important; most of the grain needed in the city was supplied by small traders based in secondary centers or by the farmers themselves who transported the product personally. Gradually he diversified into many occupations and acquired large vehicles. He received large loans since 1979 when the local branch of the BND opened in Kaya. As his province nowadays is usually in deficit, he buys most of his grain from merchants in Ouagadougou, but he also receives supplies from the western provinces where he occasionally sends a "brother". Nevertheless, he still purchases products in his own region as well. If production is exceptional he may still take some grain to sell in Ouagadougou early in the season even though he will do the reverse later in the year. He maintains a compound in the capital in addition to the one in Pisila. He

has big contracts with missions, development projects and the government grain office and sells them grain which he brings in from the outside. He is very highly regarded in his native region. He is so wealthy, I was told, that he may loan money to the administration of his town when they are short of funds. (More information about his operations is given in Section 8).

Similarly, large merchants in Manga had buyer agents in the surrounding villages and Sherman (1984:111) reports that they were so strong as to be able to close entry to assemblers who came from Ouagadougou, even in the marketplace. All merchants from the capital had to go through them and receive grain with the additional cost of their margin. Some of these provincial merchants in Manga were in full expansion when I conducted my research in the area in 1978-79, apparently thanks to the boost given by the fact that the chief of Manga had a ministerial portfolio in the new government. One of my neighbors for example had received new funds from the BND, expanded his buyer agent systems very aggressively in surrounding villages, bought his first transport vehicle and also a tractor to be rented to the big migrant farmers who were numerous in the low population density area on the road to Tenkodogo. This last investment is an interesting option which was becoming popular around Nyaogo and Garango as well, and is related to the existence of the "predominantly market oriented" type of farmer which will be discussed later in this paper.

In Ziniare, Bonkian (1982:7) describes the "wholesalers" who collect grain in villages which they visit on mopeds or small trucks, who own bars and stores and who supply Ouagadougou merchants: but also constitute an oligopoly vis-à-vis farmers of the region who want to buy grain later in the year.

When merchants and traders from the capital are excluded from village markets their role is reduced to that of "importers" of grain into the city. This is so much so that many of the minor traders do not see even a need to travel regularly to supplying areas. Their sources of information about prices and availability of grain are truck drivers. (The situation was similar in Bobo-Dioulasso in this respect, where they also mentioned that acquaintances and villagers coming to buy grain in the preharvest period would be another source of information.) One minor

trader stated that he could learn grain prices for all major market centers in the country in half an hour, just by visiting the spots where truckers from different regions arrive. In case there is some difficulty, he said, he can send a letter to a trader he knows in the town in question, and would receive a reply about the price and supply condition in the same day or in the following day. He stated that he can even receive a shipment by sending such a message. So it seems that at least in the hinterland of Ouagadougou, and perhaps also including the city of Bobo-Dioulasso itself, merchants and traders have a system which is described for Onitsha, Nigeria by Onyemelukwe who calls it "waybill" (quoted by Jones, 1976:315).

In contrast, in Bobo-Dioulasso the lesser traders can operate in a way very similar to that of the large merchants, by buying in producing zones but covering a more restricted geographic area. An interesting example is the trader of the village of Baré mentioned above. He is able to collect about 3,000 sacks of shea nuts and 5,000 sacks of grain per year in a small but productive niche which he developed for himself in a period of seven years.

Both in Ouagadougou and in Bobo-Dioulasso there is a group of small merchants, usually located in the secondary markets of the city, who specialize largely in retailing. I met several of these in Larlé in Ouagadougou and St. Etienne in Bobo-Dioulasso. Whereas the ones in Bobo-Dioulasso supply themselves largely from major or minor merchants who are based in the city itself but who are primary collectors, the ones in Ouagadougou get everything from merchants in the secondary centers. In Bobo-Dioulasso I even met a minor trader in Sirafalao whose whole trade consisted of buying grain in a few village markets around Yegueresso and selling this grain in his neighborhood to consumers. When he cannot obtain any more grain he stops his operation, but he is able to turn over enough grain to sustain himself by doing just that. In Ouagadougou I encountered a few retailers doing something comparable in the market of Nabiyar. They are able to continue to do that because they are tapping the real marginal markets about 40 km southeast of the capital in which very few people are interested. Their trade activity is insufficient to support them; so, when the rains come they all go to farm in the region where they buy grain, sometimes totally stopping the trade

activity, sometimes leaving a relative who will keep it going at a low rate as a neighborhood retail business with grain obtained from major wholesalers in the city.

6. MERCHANTS' GRAIN STORAGE

In general the ability to hold stocks varies with the amount of capital the trader controls. For minor traders who own little money, to hold stocks means to withdraw from the trade temporarily. For those with larger funds the profitability of holding stocks depends on how fast prices change and the magnitude of this change. Since storing grain was a politically hot issue when I conducted my research it was not possible to obtain much direct information on the topic especially in Ouagadougou, but there were a few major merchants who were very frank about it, and it is also possible to derive some conclusions to this effect from what traders said about their grain purchasing and selling patterns.

In Bobo-Dioulasso most merchants in the middle ranges report a very active high purchase period in the harvest and immediate post-harvest period while demand from consumers is very low. In this period most of the urban trade is between merchants themselves. Those who have limited capital sell the grain they have almost immediately in order to achieve a larger buying capacity in village markets and turn over as much grain as possible. Towards January grain becomes scarcer and prices start to rise. At this point many will start to retain at least part of their purchases to take advantage of higher prices. Nevertheless, most traders and merchants do not limit themselves exclusively to buying or selling in no matter which part of the year. What varies in different seasons is the rates of these transactions; purchases are higher during the middle of the dry season; but in the second half of the rainy season sales increase as purchases go down and gradually approach zero. The difference between the rates of purchase and sales gives the stock level of the merchant. For the middle range merchants who typically sell grain out of their stall in the urban market, the norm can be set thus: quick turnover early in the harvest period, then a gradual building up of stocks which reach a maximum in the second half of the dry season, and later a decrease in stocks which reach a point of depletion before the month of August in the case of better endowed merchants, but much earlier for the smaller traders.

The major merchants who control large funds follow a different course. They start building large stocks early in the harvest period.

Most of the grain purchased in the beginning of the buying season, whether it be by independent traders or by commission agents and apprentices, ends up in their storehouses. There is no doubt that the stocks that are built in this period in the hands of a few major merchants are considerable.

As the season wears off most of the minor merchants start to run out of grain, and even though many people pointed out that the flow of grain to a center such as Bobo-Dioulasso from producer areas never dries up totally, this flow is insufficient to cover the growing demand from consumers. Then most traders, brokers, agents and retailers turn to the major merchants who have the large stocks. Some of the smaller merchants start to assume the role of commissioners between these large suppliers and consumers or even retailers.

I had less of a chance to probe into storage in Ouagadougou. I believe the situation is similar there as well as in important consumer centers such as Ouahigouya. These centers, however, are different, in that grain can come in relative abundance from entropôts such as Bobo-Dioulasso throughout the year, constrained only by the availability of capital funds and their concentration. The merchants in Bobo-Dioulasso have the advantage of ultimately controlling the critical stocks for the nation. This also partly explains the fierce competition that will be explained below on the part of other merchants in the hinterland of Bobo-Dioulasso: the larger the amount of grain they can acquire directly, the less dependence on he stocks of merchants from Bobo-Dioulasso.

The smaller traders in big cities have somewhat permanent relations with some big merchant because even those who can purchase a good deal of the grain in the producing areas run out of grain later in the year and rely on major merchants for their supply. The major merchant with whom a junior trader has worked for several years may himself have run out of grain. But the association is not interrupted and the major merchant finds the grain his trader wants from a colleague and acts as a broker. The major merchant and small traders thus favor each other, part of the deal often being that the major merchant gives credit to his trader-customers, especially when sales are slow. Nevertheless this trading relationship is not exclusive. One retailer from Saint-Etienne

in Bobo-Dioulasso, for example, said that he usually works with a certain well known major merchant in the central market. Last year however, he said that in the second half of the rainy season he also purchased from another major merchant. In this period in which grain is normally very scarce, this last merchant sent people out to most traders and let them know that he had sorghum for sale.

This brings forth another problem for the merchant who keeps large stocks. Toward August prices are very high in cities but they may start to fall any time if one of the producing areas starts an early harvest and new grain appears in the market. There is a risk, therefore, in keeping large stocks until the very last moment. Most middle-scale merchants liquidate their stocks long before the harvest. But for those who don't, prices are so high at this period that it may become difficult to market the very last stocks, especially since consumers in the cities are also holding out with the expectation of an imminent harvest. Traders and merchants are very unwilling to cut the price in such a situation because this would only precipitate the downward trend of prices which they want to delay. A merchant told me that in such a case he would try to get rid of the grain by selling easily on credit to consumers whom he would not trust at other times. It does happen, though, that prices start to fall and some merchants end up with stocks decreasing in value. One merchant pointed out however that this relative loss is not unrecoverable for the following reasons.

The fall in harvest time grain prices does not proceed at the same pace in producing villages and in the cities. It is much sharper and abrupt in rural areas and more gradual in urban areas because the conduits that bring the grain act as a buffer in this respect.[10] Consequently the risk for trades who have stocks in the city is reduced. But more importantly the harvest period is one of the period in which profits are highest for traders and merchants. Because prices fall more quickly in villages, profit margins become larger, and whatever opportunity is lost on the stocks of the past year is more than compensated in the busy period of the new season, before prices stabilize in producing areas and in cities and margins narrow to their more habitual level. For example in Baré prices fell abruptly in October 1984, while in Bobo-Dioulasso they were still high in the second half of

December and reached their minimum probably only in January (compare per tine prices in Tables 1 and 2 for October, November and December 1984). One also notices in the case of Bobo-Dioulasso that in this period the usual relationship between the price of the tine and that of the sack is disturbed. The price of a sack is less than six times that of a tine, an indication that sacks are lighter in this period of the year because it is easier to vary the grain content of the sack than that of the tine. Most urban consumers buy their provisions by the sack. Thus, playing with volumes traders can create the illusion of a larger price fall than is actually the case, and satisfy the expectations of city dwellers who are aware of the downward price trend in rural areas.

The concentration of financial power and the magnitude of the grain stocks that a limited number of major merchants build allow them to exert pressure on consumer prices. Section 8 presents a few illustrations to document the range of differences in capital funds and storage behavior. The grain prices collected in the cities are also reeling in terms of the structure of the consumer market. August-September prices per tine collected from merchants in the central market of Bobo-Dioulasso were about 70 percent higher than those in January (Table 2). A more relevant figure, however, would be the one showing the margin between low prices in a producer village such as Baré and the high prices in Bobo-Dioulasso, part of which may be retained by a large number of small traders and commission agents, but a considerable proportion of which is retained by major merchants who can store grain. In light of these price differences the suggestion that speculative profits do not greatly exceed estimated storage costs is almost absurd. It can be pointed out that these findings (which are hardly original) are consistent with what we otherwise know of the performance of the private grain trading sector in Burkina Faso. If it is true that OFNACER's sales are about 20 percent of total grain marketing (Berg, 1977:14) than it becomes a puzzle why "Price fixing and control [by the government] in urban areas have not been effective, and actual market prices at the retail level in Ouagadougou have been much higher than official prices" (ibid:37). According to FAO (1976:109) 15-20 percent of the marketed grain should be sufficient to control the market and the unequivocal failure of the Burkinabè official

TABLE 1

GRAIN AND SHEA NUT PRICES IN BARE

	White Sorghum			Red Sorghum			Maize			Shea Nuts		
DATE	Kg(T)	Kg(c)	TINE	Kg(T)	Kg(c)	TINE	Kg(T)	Kg(c)	TINE	Kg(T)	Kg(c)	TINE
9-24-83						1500	59.0		1000	49		+1250
10-1-83							58.9		1000			
10-8-83					70.5	1500			1000	64.4		+1300
10-15-83						1500		36.6	1000			+1300
10-22-83								41.3				
10-29-83						1000	61.5		1000	60.7	62.5	+1250
11-5-83		51.9		62.9		1000		53.7			55.8	
11-12-83	73.3		1200	61.3		1000				60.6		900
11-19-83			1150	[illegible]		1000	[illegible]		1100			
11-26-83				59.7		1000	75.8			57.3		800
12-3-83		61.25[c]	1000	58.5		1000		56.1		56.0		750
12-10-83			1200	58.5		1000			1100			600
12-17-83						1000						750
1-7-84			1200			1000			1100			
1-14-84			1200			1000			1200			
1-21-84			1200			1000						750
1-28-84			1250			1000						
2-4-84						1000			1250			
2-11-84			1250			1000			1200			850
2-18-84			1200			1000			1300			
2-25-84			1250			1000						
3-3-84			1300			1100			1500			
3-10-84			1300			1200						
3-17-84			1350			1250						
3-24-84			1500			1250			1500			900
3-31-84			1500			1300						
4-7-84						1500						1000
4-14-84						1500						1000
4-21-84			1800			1500						
4-28-84			1700			1500						1000
5-[illegible]-84						1500						1000
5-12-84						1500						
5-19-84						1600						
5-26-84						1600						
6-2-84					82.7	1500						
6-9-84				93.8		1600						
6-16-84		100.6		94.7		1600	107.4		1750	75.19		1000
6-23-84		80.4		94.7		1600				72.5		1000
6-30-84	99.2	72.9	1750	93.6		1600				60.4		900
7-7-84				97.0		1600				61.0		900
7-14-84		81.6		97.1	76.5	1650					58.8	
7-21-84				108.3	98.3	1700				71.4	65.8	1000
7-28-84				105.6		1700				75.8	69.3	1000
8-11-84	123.6		2150	119.4	106.7	2000	105.6		1500		61.0	
8-18-84				116.3	105.3	2000	118.8	103.1	1800	70.9	65.8	1000
8-25-84										72.5	61.0	1000
9-1-84		119.7			111.1			79.4		73.0	64.9	1000
9-8-84		97.2			106.4			54.1			61.0	
9-15-84	113.0	102.3	2000	123.5	104.2	2000	63.5	50.3	1000		60.6	
9-22-84	113.0	109.9	2000	119.8	105.3	2000	62.5	51.3	1000	70.9	69.0	1000
9-29-84		85.1			103.3		61.7	52.6	1000		64.9	
10-6-84		97.2		100.3	90.2	1750	61.5	54.5	1000		2.5	
10-13-84			1500		80.4	1000	61.7[c]		1000			
10-20-84	64.9		1000	59.9	40.	1000		52.1				
10-27-84				48.5	37.9	800	59.4	66.8	1000			
11-3-84		42.6			41.7		61.7	37.0	1000		56.2	
11-1[illegible]-84	72.3	50.	1250	48.5	43.5	800	62.1	53.2	1000		58.8	
11-17-84	56.7	54.4	1000	47.6	64.9	800						
11-24-84	57.3	47.6	1000	45.9	50.5	800	61.7	56.8	1000			
12-1-84	57.6	47.9	1000	47.1	50.	800	65.5	50.	1100			
12-8-84	63.6	59.5	1100	47.3	50.	800	74.5	47.2	1200			
12-15-84	68.8	62.5	1200	59.5	53.0	1000	69.3	50.5	1150			

Kg(T): Kilogram price calculated from a transaction involving the sale of a tine (approximately 17kg of grain or 14kg of shea nuts).

Kg(c): Kilogram price calculated from a transaction involving the sale of a smaller unit, often a tin can (less than 2kg of grain).

TINE: The price for an official tine usually filled with a "hat" (except for +).

Empty boxes mean that no transaction involving the grain was observed, or that the grain could not be weighed.

c: Transaction performed by a consumer. In all other cases prices are those paid by traders to producers.

+: Price of a larger local tine used often to buy Shea nuts and which can take more than 20kg of nuts. It disappeared from the marketplace of Baré in November 1983 as a result of the campaign in favor of the official tine.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

Table 2

GRAIN PRICES IN BOBO-DIOULASSO (CENTRAL MARKET)

	White Sorghum		Red Sorghum		Maize		Millet	
Date	Tine	Sack	Tine	Sack	Tine	Sack	Tine	Sack
1-23-84	1,400	8,500			1,400	9,500	1,500	8,000
1-30-84	1,300	8,500			1,500	9,000	1,500	9,000
2-06-84	1,500	9,000			1,500	9,000	1,500	9,000
2-20-84	1,750	10,500		8,500		9,400	1,800	10,800
2-29-84	1,750	10,400			1,750	10,500	1,800	10,800
3-06-84	1,800	10,800			1,800	10,800	1,900	11,500
3-13-84	1,750	10,800			1,800	10,800	2,000	12,000
3-20-84	1,800	10,800			1,900	11,400	2,000	12,000
3-26-84	1,800	10,800			1,800	10,800	2,000	12,000
4-02-84	1,800	10,800			1,850	11,100	2,000	12,000
4-09-84	1,800	10,800			1,900	11,400	1,800	10,800
4-16-84	1,800	10,800			1,900	11,400	1,800	10,800
4-24-84	1,800	10,800			1,900	11,400	1,800	10,800
5-02-84	1,800	10,800			1,900	11,400	1,800	10,800
5-07-84	1,800	10,800			1,900	11,400	1,800	10,800
5-14-84	1,800	10,800			1,900	11,400	1,800	10,800
5-23-84	1,800	10,800			1,900	11,400	1,800	10,800
5-29-84	1,300	10,800	1,750	10,500	1,900	11,400	2,000	12,000
6-04-84	1,800	10,800		11,000	1,900	11,400	2,000	12,000
6-18-84	1,800	10,800		9,250	1,900	11,400	2,000	12,000
6-27-84	1,900	11,400		9,250	1,900	11,400	2,200	13,200
7-07-84	1,850	11,100		9,250	1,900	11,400	2,100	12,600
7-12-84	1,900	11,400			1,900	11,400	2,100	12,600
7-24-84	2,000	12,000			1,900	11,400	2,250	13,500
7-30-84	2,000	12,000			1,900	11,400	2,250	13,500
8-07-84	2,000	12,000			1,900	11,400	2,400	14,400
8-13-84	2,200	13,200			1,900	11,400	2,400	14,400
8-21-84	2,200	13,200			1,900	11,400	2,700	16,500
8-27-84	2,150	13,000			1,900	11,500	2,700	15,000
9-03-84	2,150	13,250			1,900	11,400	2,500	15,000
9-10-84	2,150	12,750			1,900	11,400	2,700	16,000
9-17-84	2,200	13,500			1,900	10,500	2,300	15,500
9-24-84	2,200	13,500			1,900	10,500	2,300	15,500
10-01-84	2,000	12,500			1,700	11,000	2,300	16,000
10-08-84	2,000	12,500			1,700	11,000	2,300	16,000
10-15-84	2,000	12,500			1,700	11,000	2,300	16,000
10-22-84	2,000	12,500			1,700	11,000	2,300	16,000
10-29-84	1,600	8,500			1,700	9,000	2,300	16,000
11-05-84	1,600	8,500			1,700	9,000	2,300	16,000
11-12-84	1,800	9,000			1,750	8,500	2,400	14,000
11-19-84	1,800	9,000			1,750	8,500	2,400	14,000
11-26-84	1,800	9,000			1,750	8,500	2,400	14,000
12-03-84	1,750	9,000			1,500	8,500	2,150	13,000
12-10-84	1,750	9,000			1,500	8,500	2,150	13,000
12-17-84	1,750	9,000			1,500	8,500	2,150	13,000

These prices were collected by an enumerator in the guise of a consumer from traders operating out of their stalls (not by observing actual transactions as was the case in Baré). Prices were also collected in the markets of Saint-Etienne and in Ouezinville, where they are sometimes slightly higher. Shea nut prices were not collected and red sorghum which follows different conduits was not always found at the traders consulted. The measures were not weighed. In Bobo-Dioulasso the tine is commonly sold with a flat top and thus includes at least 8% less grain than the tine in Table 1. Also the variation in the weight of the sack between seasons and transactions is much larger than that of the tine, and this explains the varying ratios of per sack to per tine prices.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

price policies can only point to strong imperfections, at least in the consumer market.

In producing areas I have not encountered evidence of storage that is financed by city merchants. While most merchants and traders have warehouses in villages where they regularly purchase grain, this is used to regulate the shipment and for temporary storage. While it is not inconceivable that some merchants keep more important stocks in rural areas, there are two difficulties for those who desire to do so. One of them is the cost of transportation in the rainy season; the other is that at the height of the hungry season, when traders complain about the lack of grain, it would be very conspicuous and unwise to ship truckloads of grain to the city. Actually the inevitable transportation of large lots of grain into the city is the soft spot of the hermetic operations of merchants at any time of the year. One of the younger major merchants with whom I was discussing the government pronouncements against speculative grain hoarding commented somewhat apprehensively that the number of trucks entering the cities could conceivably be used by officials to make estimates of the stock holdings of major merchants (by recording the owner of the shipment in the routine police checks before entering the city). It is possible that merchants of the deficit provinces in the north store some grain in the anonymity of large cities until they need it later but this requires much further probing.

7. SMALL GRAIN TRADERS

As a source of grain supply to the city, part-time trader-farmers, I was told, have lost their importance in Ouagadougou as a result of the "involution" of the grain marketing system here, but they are still of some importance in Bobo-Dioulasso. It is easy for farmers who are close to a highway to bring the sacks to the side of the road on a donkey cart, or even a bicycle if the quantity is small, and then load them up on a passing bush taxi. Especially many retailers in the Saint-Etienne market of Bobo-Dioulasso described this source as important for them.

Besides these, there are also, among farmers who have large quantities to sell, those who prefer to make a deal with a particular trader they know in the city, rather than selling their grain in the village. This practice is particularly difficult to observe and it may be more common around Bobo-Dioulasso than there is evidence for it. I have encountered one significant case, a small Mossi trader in Saint-Etienne who started to sell rice after the harvest of 1984, one year after he opened his one room grain store in the market. His sole rice supplier was a migrant Mossi farmer who had a small but highly productive farm in one of the improved rice perimeters along the Kou valley. The farmer sold a major part of his production to this trader. This transaction should be evaluated against the backdrop that locally grown rice is not very attractive to most merchants because of the competition of inexpensive imported rice. Only one among the major merchants I interviewed expressed any interest in it; he said that in previous years he bought some to sell it as paddy to small women traders who would husk it in their mortars and retail it in village markets.[11] Otherwise the major part of the national rice produce is purchased by the government through development projects that provide extension service for it and is largely used for its own purposes or retailed in the government stores. This same rice which cannot support the long marketing chain under the competition of imports, can become viable when this chain is shortened as when the farmer and the seller can make a direct deal.[12]

Some of the medium level traders combine the grain trade with other trade activities as the top level merchants do; but these activities are

not the same ones as those that large merchants engage in. One of the young traders in the Saint-Etienne market in Bobo-Dioulasso, for example, is related to one of the wealthiest merchants dealing in imported second hand clothes in town. His father was considered the largest grain merchant of Saint-Etienne (which is a secondary market), because he was able to collect and store large enough quantities to occasionally supply even traders from the central market, or from Ouahigouya. The capital seems to have been derived from a cocoa plantation in Ivory Coast where they still have relatives. (It is not clear whether they have sold this plantation or whether they have some other kind o arrangement). Until a few years ago the present trader, who is the eldest son, was selling clothes in Kouka, one of the largest surplus producing towns north of Bobo-Dioulasso, while the father was managing the grain store. In the last three years the father went to the central market to sell clothes (an activity that requires less energy) while the son took over the scaled down grain operations in Saint-Etienne.

A more common example is the case of the grain and shea nut collector who purchases other products as well. Most typically women traders buy all kinds of plants used as condiments for sauces, honey, and fowl in village markets.

The differences among small traders are bewildering. They may engage in very different types of activities, and the smallest ones may sell grain only in the early part of the year when it is cheap and plentiful. Some are specialized in unusual ways. Some travel very extensively within and outside of the country to take advantage of price differentials between centers imperfectly connected because of transport difficulties. Such individuals may act as entrepreneurs opening up new avenues, but their activity does not always result in the establishment of new patterns. One of the most interesting successful attempts I heard about was that of a Ouagadougou trader who maintained that in 1966-67, while in search of grain with one of his associates, he opened up the main road to Fada N'Gourma and many secondary village roads in the Eastern ORD that were totally covered with bush and grass because of infrequent use, by hiring work parties, wage workers and using fire at the cost of a great deal of money.

Despite this variety among small traders one can see that in general those in Ouagadougou have much less vertical mobility than those of Bobo-Dioulasso. Most small grain dealers in Ouagadougou complain of a decrease in relative share in the trade in recent years. Their capital is eroding as grain becomes more and more expensive. They attribute this trend to several factors: for one thing, the lack of grain is pushing them to inactivity or reduced activity in the latter part of the year during which time they continue to have constant costs (such as rent, living expenses). This situation coupled with generally low margins may in fact cause some of them lose money without realizing it until the capital available to them is significantly reduced after an extended period of time. Secondly, they mentioned that now the availability of large vehicles favors the transporters of large quantities (the major merchants who are often also owners of trucks, as mentioned above) while those who cannot fill a whole vehicle have, not only higher costs, but also more numerous logistical problems in reaching the markets and taking out their grain. Also, possibly, the increase of competition and the higher integration of the national market reduced the possibility of occasional large entrepreneurial profits by regularizing supply and equalizing margins, a development that favors those who can deal in large quantities because they control larger funds. These changes seem to be due to the great increase in the number of those engaged in trade, in the city itself, but also and most importantly, to the growth of a local merchant group in secondary market centers, as described in Section 5.

One interesting example of the difference between the two cities can be seen in the case of women traders. I referred above to successful women grain dealers and their increasing role in Bobo-Dioulasso. The situation is different in Ouagadougou. In some secondary markets which supply Ouagadougou one does see women traders who buy grain; but often they are local residents who supply themselves for some transformation activity such as cooking or brewing. In Manga women buy red sorghum in large quantities, malt it, and sell it to brewers or assemblers from Ouagadougou. But in grains other than red sorghum their role is limited; the only examples I heard of are a few women who may buy a few sacks per year to retail in small quantities when prices are high. Traders in Ouagadougou told me that in Léo, on the roads leading to the market,

women intercept farmers who bring grain and buy it from them before they ever reach the market. Their competition was serious enough to lead male traders in the market to pressure the authorities for the issuance of a prohibition against transactions on the roads. Most of the women probably use this grain for their small restaurant business, as is the case in the Eastern ORD (Ouédraogo, 1983:85).

Women traders who are based in Ouagadougou itself, attend secondary market centers usually to buy primarily condiments and other commodities in which men no longer trade. When they manage to obtain some grain on the side they sell it immediately to retailers who have stalls in small neighborhood markets. Several men in Ouagadougou affirmed that there are no women traders dealing in grain who are of any consequence and who conduct their sales from a fixed locality. In Ouagadougou women who control moderately significant capital funds seem to move to occupations where they do not have to compete with wealthier men, such as the brewing of sorghum beer or dyeing of cloth.[13]

This is not to say that women do not have sex-linked disadvantages in Bobo-Dioulasso as well. One notices there too, that all women sell their grain either inside the market but in open stalls (not in stores) or out of their compound in a neighborhood. Several men in Bobo-Dioulasso commented that some of these women may possess capital funds that are more significant than those controlled by some lesser male merchants. The women are not only retailers, they may sell relatively large quantities to other retailers such as 10 sacks (1 ton) at a time. Usually they collect their grain themselves (as in the case of the women traders of Baré) in villages where they have personal relations with some client farmers. Often a daughter or close associate stays in the city and continues to sell when the trader goes to the villages. It was curious that even the largest of these women traders did not have a covered stall or a concrete store in the city market or the surroundings. It was explained to me that this was because men find such an arrangement inappropriate and resist it in a passive way. In Saint-Etienne and Bobo-Dioulasso male traders recognized that some women traders are actually actively seeking a store around the market. But these rooms are in high demand and are passed down from one occupant to another by recommendations of fellow merchants within a network from

which women are excluded. Even if a woman manages to locate such a vacant store, its owner would probably create some difficulty because he would be unwilling to deal with her directly (for example, he would ask her to bring her husband to negotiate, I was told). These explanations are not totally consistent with the common observation that women traders deal freely with their men counterparts in many contexts. Nevertheless the existence of some real block for women in certain respects seems to be true, because women and men are physically segregated in urban markets, while on the basis of scale of operation alone one would expect a different grouping within the marketplace.[14]

8. ILLUSTRATIVE CASES OF MARKET PARTICIPANTS

This section summarizes, in their concrete totality, a few of the cases from my interviews, and presents some rough estimates of quantities which characterize their enterprises in order to illustrate the considerable differences in financial power and scale of operation among different types of actors involved in the marketing of grain.

One of the largest merchants I interviewed in Bobo-Dioulasso was a Zara related to the family which held the canton chiefship in the colonial period and which includes well-known political figures. He started as a farmer, became a tailor, and in the mid-1950s started to work as a collection agent for the big companies. In 1963-64 he started to trade on his own behalf. Presently he uses one of the blocks he owns in the center of the town as a residence and as a commercial compound including large warehouses. He is well known in the trading circles of Bobo-Dioulasso and Ouagadougou; and merchants who work closely with him affirmed that he handles at least 1,000 tons of grain even in the worst year. He also told me that in 1984 he exported 400 tons of shea nuts and 150 tons of sesame.

He explained his business strategy in the following terms: he starts a very busy buying campaign as soon as the harvest starts, in August or September. He buys all kind soft grains and oil crops. He stores the oil crops for direct export. He stores food grains also and does not start to sell until April. The busiest months of sale, however, are June and July. He has the reputation of being one of the last merchants to exhaust his grain stocks in the pre-harvest period.

I met two other merchants comparable to him in mode and scale of operation in Bobo-Dioulasso. They were, both, Jula of Malian origin. They are the heads of large African family type businesses which are diversified into transportation, importing of cement and rice, and traditional trades such as fish.

The Zara merchant told me he took great advantage of bank loans while the other two, in contrast, did not; in the case of one because of lack of interest, in that of the other, assertedly, for lack of connections. But with or without loans, they all operate with very large capital reserves that could be guessed in the order of 100 million FCFA. All

three of them build stocks with grain that they obtain through the medium of long cultivated networks from the western provinces of the country and keep them for several months waiting for prices to rise. The active adult son of one of the Jula merchants explained to me that this is the only sensible course to take at the level at which they operate.

When the exporter-importer-transporter merchants described in Section 4 take an interest in the trading of grain they also follow a similar strategy. A member of this class whom I interviewed in Ouagadougou stated that he lost interest in the trade of foodgrains because the government's efforts to enforce official prices reduce the profitability of inter-seasonal storage and even makes it very risky. He is still involved occasionally in cereals, however, by making grain contracts with OFNACER and other organizations as it will be explained in the next section. What partly distinguishes merchants like him from the other three who still engage in the grain trade is the fact that the former are all-purpose wholesalers or newcomers in the grain business who do not have a cost advantage. When they want to collect grain for a contract or for storing they buy it largely from other merchants and traders in the open market. Their strong point is the enormous funds they control, thanks to which they can bulk at a level that very few people can, thus monopolizing relations with big institutional customers.

It is also possible that those large merchants who continue to be active in the grain trade are doing so because they are more old fashioned or have fewer contacts and sources of information and thus fewer options to employ their capital. This makes them less sensitive to declining profit rates and perhaps more willing to assume political risks. As a matter of fact, in Bobo-Dioulasso I met a somewhat educated and very enterprising businessman of the younger generation who seemed to be also in contact with several expatriate business agents. His main occupation was the distribution of bicycles and motorbikes, but he was also trying a hand at importing rice. He vehemently criticized the strategy of old-fashioned merchants who rely exclusively on speculation and maintained that a more courageous strategy that turns the money faster would bring greater overall returns. Certainly his greater exposure to ideas, his ease of communication and his personality were

important factors shaping his business style, but he also probably controlled smaller funds than the three mentioned above. The amount of capital that can be profitably employed in various trading activities is difficult to determine from the outside and it was not clear that his venture in importing would yield any long term results.

The trading activities of the small group of major grain merchants illustrated by the above examples have a profound impact in rural areas. These merchants are the leaders of Merchants Associations, as it will be explained in Section 12 and can exert oligosonistic pressures. The size of the stocks they build gives them great power in urban consumer markets.[15] Another conclusion from the interviews is that all these tendencies in the market would be strengthened if the top group of major exporter-importer merchants who for the moment lost interest in the foodgrains trade reenter it. This might result in greater capital flows into the marketing of grain, but at the expense of greater concentration in inter-seasonal urban grain storage.

Many of the major merchants who operate out of stalls in the main markets of the two cities are Mossi (often of Yarga origin) who started by first becoming successful regional merchant of minor secondary centers. Then, they preferred to settle in the expanding cities instead of going to a major regional center such as Ouahigouya and compete with its established merchants. Typically they have a Quranic school education, and after a sojourn in Ivory Coast, to save initial funds (and enlarge their horizons), they associated themselves with a major trader dealing in export crops and grains. The most important merchant of this group that I met in Bobo-Dioulasso told me that he was a truck owner and a trafficker with Ghana before moving to export crop collection. He now supplies (December 1984) several truckloads of grain per week to merchants in Ouagadougou and Ouahigouya, has dealings with European agents for the export of oil crops, but he also sells directly to consumers or brewers by the sack, food grains, locust beans, hibiscus seeds, onions, indeed, any village product that can be sorted in a sack.

One other such merchant, again in Bobo-Dioulasso, was working closely with a trader of Baré and I had longer contact with him. To judge from their reputation among fellow merchants, he seemed to be of lesser import

than the preceding one, but he told me that a merchant like him could purchase 100 sacks a day in the post-harvest period. I estimated that he turns over between 6,000 and 7,000 sacks of grain per year.

Such merchants, like those in the group discussed prior to is, have an extensive network to collect the crops they are interested in, but they rely more on commission agents than resident buyers. They may also handle almost as large an amount of grain as the major merchants outside the marketplace. The difference is that they store much less between seasons and adopt a strategy of high turnover because they control smaller funds. One can rarely see more than 200 sacks at any one time in their stall in the marketplace (but it is likely that they have warehouses elsewhere in the city). In Bobo-Dioulasso such merchants appear primarily as major suppliers of Ouagadougou and Ouahigouya merchants.

In Ouagadougou I met another Yarga trader who is representative of the same group. He specializes in the southern part of the country that borders on Ghana. When in 1984 northern Ghana turned up a record maize harvest while the Sahel was suffering from the effects of a bad crop, the formerly insignificant border town of Guéléoungo suddenly acquired great importance as one of the main ports of entry for Ghanaian grain. Like many others, he concentrated his efforts in this town. He attends each market with the two large trucks he owns, and because he is the wealthiest of the traders who commute there from the capital, he is considered their "president". I estimated -- on the basis of the number of trips he makes and the average amount of purchase in each trip -- that he handles about 1,500 tons of grain a year (an urban dweller who doesn't trade but who knows this merchant well and who has observed him at work found this surprising estimate reasonable). In 1984, three quarters of this grain was maize of Ghanaian origin. Like other wholesalers he also supplies wholesalers, retailers, and consumers.

I will give another example from Sankariaré, again in Ouagadougou. This merchant told me that he started as a hawker 30 years ago, but has been in the grain business for a number of years and is known to be the first wholesaler to have moved to the Sankariaré market. He has important contacts in the western provinces which in 1984, I estimated, supplied him with about 150 tons of sorghum and millet. But now he also

relies on Ghanaian maize which he obtains through Hamalé. Major merchants such as he often go as far as Wa in northern Ghana to buy grain directly. I was told that in November a large sack (of more than 120 kg) was sold for 1,400 FCFA in Wa. One also has to pay the intermediaries who see the grain through Ghanaian customs (this trade is illicit) and deliver it in Hamalé at another 2,000 FCFA per sack. There is a custom charge of 760 FCFA in Burkina Faso. Transport to Ouagadougou costs between 1,000 and 1,250 FCFA per sack. Early in December a sack of about 100 kg was sold by wholesalers in Ouagadougou for 7,500 FCFA, leaving a margin of about 2,000 FCFA or 36 percent of the cost.

In contrast to the merchants discussed so far, the majority of the traders who operate out of stalls in urban markets possess negligible amounts of capital and handle very small amounts of grain. Most handle less than 500 sacks per year and control capital of less than 5 million FCFA. Yet they may be forced to extend some credit to consumers who buy their grain, but in turn they may also receive grain on short-term (less than a month) loan from major merchants. They do not have any dealings with the banks, but I encountered young traders who keep simple records, especially on credit transactions.

Those, among them, who buy in villages sell the export crops which they collect to the same major merchant who is often also the person who supplies them with grain when it becomes scarce later in the year. But the smallest traders, especially in Ouagadougou may not buy in local markets at all for lack of capital. Then they are reduced to the role of simple retailers. Many such small traders operate out of somebody else's stall in one of the secondary markets of the city by paying the first tenant a small fee of 25 or 50 FCFA (depending on the type of stall) per sack brought for storage. This gives them the right to spend their time there, discuss with customers or do whatever else is necessary to conduct their business. Indeed it is difficult to distinguish between the original tenant and such junior associates in these marketplaces; they all sit in groups in front of their stalls chatting with neighboring grain retailers with whom there may also be ties of kinship, geographic origin or affiliation to the same Islamic order. On the surface there is surprisingly little tension or competition for customers. Selling prices

are adjusted smoothly and quickly on the basis of the most recent acquisition price in the local sector, and this information seems to communicate freely, at least as long as the price trend is upwards.

One does occasionally encounter a more important trader even in these secondary city markets. The Saint-Etienne merchant in Bobo-Dioulasso who has been mentioned in the preceding section is one of them. His father especially had the reputation of holding large stocks until late in the rainy season, and being able to sell by truckloads to merchants from other cities. The son who has replaced the old man now has a scaled down operation, but this is still important in comparison to that of his neighbors. I estimated that he handles more than 200 tons of grain per year, a large portion of which is stored for 4 to 6 months.

Among such merchants one may encounter very enterprising individuals. One of the traders I met in the central market of Bobo-Dioulasso specializes partly in the trade of locust beans which account for 35 percent of what he sells. He frequently travels to Gaoua (province of Poni) to buy shea nuts and locust beans. One his way back he sells the shea nuts in Bobo-Dioulasso, buys grain instead, and brings the grain and locust beans to Ouagadougou. He also travels to the eastern provinces to buy sesame or grain. But his most adventurous undertakings are his occasional travels to Guinea to buy locust beans. In Ouagadougou he can sell these beans to merchants from Nigeria. Such international ventures do not always yield high profits. When I talked with him, for example, he had in store beans purchased in Guinea which he had hoped to sell to Nigerians a long time ago; but the merchants had not shown up, and in the meantime prices had declined considerably. This trader probably delivers a total of 1,500 sacks (roughly 150 tons) of sorghum, millet and locust beans out of his stall in Ouagadougou. In addition to that, there are the shea nuts that he exchanges for grain in Bobo-Dioulasso and he also sells some imported rice. He does not store produce voluntarily for more than one month, but he may do so in the face of an adverse price change, because like most Bukinabé traders I met, he dislikes selling produce at an absolute loss.

One trader whom I met in Ouagadougou specializes in the purchase of grain from an unusual source: policemen (gendarmes) and guards who can obtain provisions on credit from the army store and use them as an

advance on their salary, which army personal regularly cannot obtain in cash. He has a store in the city which is well-known by the gendarmes and where they come to find him. In January 1985 the cost of the sack of maize he was getting in this way was 500 FCFA below that of maize he could purchase from the Ghana border. Gendarmes can obtain the grain at official consumer prices which are usually lower than market prices during most of the year, but they may also be willing to loose some money on it for the sake of getting cash. The trader said that he can also extend credit to some of them (that is, given them before they can bring the grain). (Maybe for this type of transaction we should coin the term "sales in the red" to complement "green sales".) This trader seems to have developed the same type of relationship with some government employees that most grain sellers maintain with their salaried customers, with the difference that in this instance the customers supply the grain instead of buying it. He also claimed that he has monopolized such relations with all the gendarmes and guards in Ouagadougou. It is hard to estimate the volume involved in this type of transaction, but we can note that he runs his business uniquely on this source of supply. I heard of the same practice in Bobo-Dioulasso from women engaged in the restaurant business. It was known in the city as well as in nearby villages. It is conceivable that at a smaller scale the same thing also occurs directly between gendarmes and consumers.

An example of a dealer who obtains success despite extremely small funds is the trader whom I met in his compound in the neighborhood of Sirafalao in Bobo-Dioulasso. Being originally from the Mossi country he travelled to Gaoua upon the encouragement of a relative who was working as a mechanic there. For a while he worked as an itinerant trader, peddling small wares that he brought periodically from Bobo-Dioulasso in the village markets he attended with his bicycle. When he accumulated some money he abandoned this extremely strenuous work and settled down in Bobo-Dioulasso where he opened a small store with his savings in the neighborhood where he presently lives. Later he transferred this shop to his kinsman associate from Gaoua (because, he said, he could not endure extending as much credit that such a business requires) and moved into trading cereals. He spends two days a week in village markets toward Yegueresso (within 15 km of the city), and buys grains and export crops

by small units such as tomato cans or tines. In the post-harvest period in a market day he can collect up to three sacks of produce, but the amount is much less in the rainy season. He sells the export crops that he collects to transit companies, and the grains to consumers in the neighborhood, most of whom are salary-earners who buy by the sack, or to brewers who may buy several sacks. In one year he collects about 50 to 60 sacks of shea nuts and perhaps about 100 sacks of grain.

Despite his success this trader seems to be extremely cautious, almost old fashioned, in his trading style. This was most dramatically revealed in his categoric declaration, prompted by one of my questions, that he does not want to take loans, because he is afraid of not being able to pay them back. While his turnover is small his profits are probably relatively high, because he retains the full margin between the producer and urban consumr prices.

The final example I will give is that of the major merchant of Pisila, an important secondary center which has an influence on the province of Sanmatenga, and even as far as that of Sahel (see Section 5). He told me that he started his business in the mid-1950s as an apprentice to a kinsman who also was a mechanic. He spent three years in Ivory Coast and brought back a bicycle. In the early sixties he started collecting export crops on behalf of merchants in Ouagadougou. Then he passed through a path similar to that of big city merchants. First he opened two flour mills, then a bar. He started to buy cereals and export crops on his own behalf. In 1972 he bought a car (the same one ton Renault that major Ouagadougou merchants had started with in the mid-1950s) which he put into service between Dori and Kaya, two towns between which there is a busy traffic resulting from the importance of sheep-raising in the north. Presently he owns two large trucks which he rents and uses for his own trade. Five years ago he also became a regional distributor of bottled drinks when the breweries decided to transfer their own distribution system to private parties. Recently he also opened a general store for his brother. It may be of interest that his financial success had no support in traditional political statuses; in this strongly hierarchical society he comes from a casted (griot) background.

According to his explanations, food grains constitute only 20 percent of all the produce he handles, the rest being shea nuts and sesame which he collects in his region to sell to exporters in Ouagadougou. I tried to estimate his grain trade on the basis of his sales. He said that he can sell 50 sacks per market day in the rainy season, and about 10 sacks per market day in the post-harvest season. Assuming five months of high demand he sells about 300 tons directly to consumers or petty retailers. In addition to that he has contracts with organizations such as the Catholic mission, Save the Children and OFNACER which operate out of Kaya. His total grain sales are probably close to 500 tons.

He was also one of the rare merchants who gave me some understanding of his use of loans. He receives mostly eight month campaign loans which he pays back in four bimonthly installments. Usually, he said, in the beginning of the harvest season he starts to buy with his own money. He prefers to start taking the loans when he exhausts his own funds, usually around December or January, because what is important to him is to pay them back as late as possible in the dry season. If the shea nut crop is very abundant he may have to have recourse to loans earlier in the season.

He declared that he does not store much grain nowadays, because it is politically dangerous. Nevertheless, he also mentioned in our conversation that the maize he had bought early in the season turned out to be a bad investment, because the Ghanaian maize that flooded the market kept prices from rising and he was relieved to rid himself of it in a recent contract. I take this to be an indication that he does store some grain, at least for the short-term and in the early part of the post-harvest period, waiting for prices to rise. A factor in the situation is the publicity that the critical food balance of the northern provinces has received. The result of it is the availability, in the worst part of the hungry period, of foodstuffs at subsidized prices supplied either by national organizations such as OFNACER or by international organization such as the Catholic Church. These may preclude speculative trade activity in some periods of the year in which it would otherwise be most profitable. It has been observed that in certain years even OFNACER had a difficult time finishing its stocks due to charitable distributions, while in the more productive southern provinces acute shortages may occur and local prices may soar to very

high levels. Thus it may be more profitable and secure to sell to organizations such as the Catholic mission or OFNACER (which later sell the grain to the population at a loss) than trying to compete with them. In the absence of political pressure and such charitable interference, merchants such as he would have more possibilities to exert monopsonistic pressure in the post-harvest period and monopolistic pressures in the pre-harvest period.

9. SOME EFFECTS OF GOVERNMENT AND LARGE ORGANIZATIONS ON SUPPLY CHANNELS

The marketing efforts of the Burkinabè government concentrated on export crops until 1971. In that year the Office Nationale des Céréales (OFNACER) was established in response to the Sahelian drought with a mandate to stabilize prices and establish an emergency grain reserve system. In the early years this organization mainly distributed food aid, but in 1974 the government gave the local rural development offices (ORD) monopoly rights to purchase grain for OFNACER.[16] There were difficulties due to lack of funds and organizational problems resulting in involuntary storage at the farmers' level. In addition foreign donors were angry and there were aid cutbacks and delays (Wilcock, 1977:201). In 1978 the government repealed the monopoly rights. Now the major merchants obtain a license from the Economic Bureau of the Ministry of Commerce in addition to the fee (patente) they have to pay to operate in particular markets. In the harvest period the government fixes an official buying and selling price for each major grain. This price is formulated by a large technical commission that meets under the presidency of the general secretary of the Ministry of Rural Development and in which various groups, including "farmers" and the Grain Merchants Association are represented.

OFNACER starts buying grain at the official price immediately after the announcement. Part of this grain is purchased by agents at the village level directly from producers at pre-announced times and places. The agents may also operate in market places. Because the organization is unwilling to buy in units smaller than a sack (of about 100 kg) -- while, for example the most popular unit of sale in certain market places is the tine (of about 17 kg) -- OFNACER agents usually purchase large quantities from the merchant middlemen who assemble and bag smaller quantities.

The actual buying campaign may have an impact on prices when it starts early in the season because the official prices are often above the market price in the harvest period. For example in December 1984 this was the case in N'Dorola where OFNACER agents set up shop a few hundred meters from the Bobo-Dioulasso and Orodara merchants. The same

competitive effects has been observed by Ouédraogo (1983:90) in the east.

Often however, because of lack of funds, OFNACER agents became active only later in the season when prices are already above the official price. (For information on the funding of OFNACER and factors reducing its administrative efficiency see Wilcock, 1977:199-221). In such cases I was told that OFNACER agents trying to fill a quota in a particular region may temporarily impose a de facto monopsony by suspending its market until they achieve their goal. The small traders in Ouagadougou were very bitter about this practice which shuts them out of the market in the period that was critical for them. Such adverse effects were not mentioned in Bobo-Dioulasso.

OFNACER also buys from Village Groups monitored by the ORD.[17] The purpose is to reach the producer directly. This arrangement would be much more successful, again, if funds arrived on time. When funds are late the major part of the grain is already purchased at low prices by merchants who are now moving their prices up to get at the stored grain. For example in N'Dorola in 1982-83 a total of 44 million FCFA were distributed to about 40 Village Groups. But only one third of this amount came in the harvest period, the rest being given in two installments in February and March. As a result the whole sum could not be used up by the Village Groups for the purchase of grain, and there were even problems getting the money back from them. The following year the funds for each Village Group were reduced to 250,000 FCFA each. Because of this and the untimely arrival of funds, of the 37 million FCFA disbursed, 25 million FCFA were returned unused. In 1984 the first funds were received on the 17th of December, but by the 26th, many Village Groups had not received the money yet, and the local price was catching up with the official price.[18] This failure is revealing, because the whole sum disbursed by the ORD is hardly equivalent to the budget of a medium-level merchant in this high surplus area; and even an unimportant private agent can purchase in a couple of weeks in the harvest period twice as much grain as a Village Group is expected to do in the whole season.[19] If organizational problems were solved and the money could be made available earlier, it is very likely that the effect of official prices on the depressed harvest time prices would be much quicker and more directly to the benefit of producers.

OFNACER has target stock levels each season, and usually cannot complete them by the use of the mechanisms described so far. As the season advances representatives of the government approach the big merchants and ask them to supply grain to OFNACER of the official price. However in many instances the merchants are politically strong enough to negotiate this price. In December 1984, for example, merchants mentioned a meeting where high level representatives of the Ministry asked the Association of Merchants to supply 60,000 tons of grain in three installments in the following months. The latter agreed, but there was disagreement on the price. OFNACER adds a margin for transport and profit onto the official price in such circumstances, the assumption being that the merchant paid the official price to the producer. But of course the grain supplied is usually collected through the market channels described above and not directly by the merchant to supply to OFNACER; and the price received by the producer is way below that. OFNACER may decide to pay a price above the official price later in the season.

OFNACER demand is an important factor in the dynamics of urban grain markets, probably even more so than in rural markets. In discussions of the Burkinabè grain sector the dichotomy between the private and public channels often gives the false impression that the two have little interaction. In reality by making contracts with major merchants, OFNACER also becomes a stimulus in the private grain trade at all levels, a role shared also by international (often, aid) organizations who buy large quantities of grain in Burkina Faso.

In Ouagadougou there are merchants who deal with grain only when they have such a contract. They are usually import-export-transporters, who usually belong to the top class described in Section 4. They have no grain in storage; they purchase it after they have made the contract. For this purpose they announce a price and the amount of the grain they need. In a surprisingly small time all the merchants and grain traders in the city have knowledge of this news through informal channels. If the price is interesting, the amount is usually collected in a very short time. But it also happens that the merchant is unable to deliver the quantity. The merchant is not bound to raise the grain within the country, he can import it. During my interviews I encountered merchants

who were importing maize from coastal countries for government contracts. Most of the sorghum and millet, however, comes either from within the country or is informally imported from neighboring countries of the Sahel in the continuous exchanges which go unrecognized officially. What makes grain contracts with OFNACER or other international organizations attractive is the very large volume involved in such transactions. This is enhanced by the possibility of receiving a short-term loan from a bank using the very contract as a basis, and thus conducting the operation without committing personal funds.

The impact of these contracts on small traders is important in the capital city. In December every day I was told of such and such major merchant from Sankariaré or elsewhere purchasing at such a price. Some contractors were said to be able to raise 100 tons a day when the word of a contract is passed around. Most small traders will take four or five sacks, but some may deliver larger quantities. The quantity of grain collected by rural merchants, transferred to the city, and ending up in OFNACER through the means of such contracts must be considerable. In this way OFNACER and other large grain buying organizations are enlarging the urban market, providing a profit margin to a type of urban merchant who otherwise would not engage in grain trade, and perhaps also contributing to maintaining current price levels.

Merchants in deficit areas can also have contracts with OFNACER or international organizations as in the case of the merchant from Pisila mentioned in the previous section. Most of this grain is purchased in Ouagadougou from merchants who have obtained it at the end of a long marketing chain. Thus the grain collected in rural areas can travel to the city, changing hands several times, can be stored there for several months, can be combined into big lots through the agency of a major merchant operating with an advance or loan, and then can be taken back to rural areas by OFNACER or some international organization, to perhaps be sold at a loss in villages from which it was in part collected. Another implication of this practice is that OFNACER is present at every level of the marketing chain and in interaction with private agents, in some areas competing at the village level, in others using bulking agents in the secondary marketplaces or funding Village Group activities, and

ultimately, paradoxically, making the largest grain contracts with the super-merchants in the cities.

The government has an effect of a different order on the market by providing regulations. Usually these have notoriously little impact because they are not seriously enforced. The revolutionary political climate of the country, however, has somewhat modified this situation. From the point of view of the grain market the most interesting attempt was the campaign to homogenize volume measures by insisting on the use of the official versions to be filled without a crown (see Section 13). The radio stations broadcast frequent announcements to that effect in November in 1983 and in 1984, and village CDRs started to monitor market transactions. In response, in Baré the two nonstandard tines, the one larger and the other smaller than the official one, disappeared from the market, but the proviso of filling the tine with a flat top was ignored. I was told that there was more pressure in this respect in markets such as Soumousso where the CDRs were more vigilant.

10. STRUCTURE OF THE MARKET AND PRODUCER PRICES

Large merchants in Bobo-Dioulasso and Ouagadougou are organized in associations (syndicats). These associations are powerful political pressure groups and also act as channels of information. Grain wholesalers are organized as a subgroup within merchants associations, while minor traders and the retailers have a separate association. Grain wholesalers are one of the most powerful merchant groups in the country and are known to have successfully challenged many government decisions, most notably during the tragic drought and associated scarcity between 1971 and 1974 (Ouédraogo, 1974:;22). The Ouagadougou Grain Merchants Association is affiliated with the labor union confederation OVSL since 1978. They send a representative to the technical commission that sets official cereal prices. When the government wants to purchase grain for OFNACER the officials approach the association as a collective body rather than turning to individual suppliers.

One thing explained very clearly to me in Bobo-Dioulasso was that one of the major (but unofficial) functions of the grain merchants associations was until recently to set a maximum price to be paid to farmers. Executive members (in the number of 20 in Bobo-Dioulasso) who are major merchants have a first meeting before the harvest in the house of the president of the association and decide on the starting price to be offered to producers for the new harvests. Subsequently they meet a few more times to adjust the price, because when the season advances less grain is offered for sale by farmers. This was not an informal agreement. They had texts documenting the agreement and also specifying the fines to be applied in case a merchant is found to violate the agreement. According to one of the former presidents the fine imposed would be 10,000 FCFA for the first breach (even if the quantity is very small), 20,000 FCFA for the second. If the quantities involved are very large there is an additional fine calculated per kg. One major merchant declared that such fines could reach the amount of 45-50,000 FCFA. This money was deposited in the Association's bank account and was one of its major revenues.

Such high fines make one wonder about the sanctions that are available to enforce such discipline. It can be suggested that there are

powerful interests uniting the largest merchants constituting the executive members of the association, and that the organization is aimed at controlling their interests vis-a-vis lesser traders who might be tempted to get a larger share of the supply by competing through prices. The organization was effective because these traders are ultimately dependent on the major merchants in many ways.

This system apparently was not in operation when I conducted my interviews in December 1984. The merchants complained that the situation was anarchic. One of the reasons for this is the political climate. The Merchants Association of Bobo-Dioulasso is under pressure because it manifested enthusiastic support for the prior government which had detained the present president of the Faso. A contributing element is that the present government has mobilized youth groups (CDRs) to monitor the enforcement of certain measures and the activity of merchants. The merchants do not see the setting of a price itself as a bad thing, because the setting of official prices provides a model for them and furthermore because the major concern of urban public opinion (and partially even that of the village public opinion) is to achieve low consumer prices; there is even a hint of pride in it. Consequently they did not see any inconvenience in giving me all the details about this practice. And yet fixing prices <u>below</u> official prices is not something they would like to advertise in the present context. As a result, either they have discontinued their prior practice, or, and this is a possibility, they have not totally abandoned it but merely want to keep a low profile on it. In the weakening of the collusive power of Bobo-Dioulasso merchants there were also purely market forces at play. They were due to strong competition exerted in the hinterland of Bobo-Dioulasso by groups of merchants that until recently were uniquely their customers.

11. COMPETITION BY OUAGADOUGOU AND YATENGA MERCHANTS IN WESTERN PROVINCES

Merchants from Ouagadougou and Ouahigouya have started in the last few years to obtain part of their grain needs directly in the large surplus producing areas of the west. One of the obvious reasons for that is to retain part of the margin paid to the intermediaries in Bobo-Dioulasso. Another one is probably a desire to benefit from price rises by taking part in the storage of grain. As the major merchants who build stocks in the city are not interested in selling their grain before the rainy season starts, merchants of other centers are restricted in their storing capacity unless they go to the origin of the supply. The outside merchants who come to the western provinces usually do not have the necessary contacts to have the grain channeled to them. They are also pressed for time because their stay in the producing area is costly. Their aim is to buy as much grain as possible in the shortest time possible. One way to achieve this is to lure agents of the great merchants of Bobo-Dioulasso to sell them the grain they have collected for their employer. When this happens Bobo-Dioulasso merchants lose valuable time while their capital is used by someone else. This may also drive prices up generally, because these agents in turn may offer higher prices to farmers to obtain more grain. Other merchants and agents operating in the area have to follow if they want to continue to collect grain.

The sole impact of this type of competition is not just on prices; the very way the merchants organize their trade is affected. The fluidity of the situation creates insecurity and increases logistical problems for big city merchants. Agents are usually asked to check back with the merchant before starting to offer a higher price. Sometimes they have to receive additional funds to continue to buy if the price of the grain has gone up. Therefore frequent price changes mean loss of time even when the agents are loyal. To give more autonomy to agents is one solution but brings its own risks. Some agents, I was told may even misinform their employers on prices to increase their personal profit.

The same factors are at play in the case of resident village buyers. Many people traced the decrease in the importance of resident village

buyers, who operate with funds provided by the city merchants, to frequent cases of disloyalty due to the same factor. In this respect it is significant, for example, that in a village such as Baré there are no more grain buying resident villagers, while the collection of shea nuts which is not subject to the same pressure on the part of traders from Ouagadougou and the Yatenga is still largely achieved by a few villagers who receive large cash advances. In this way the competition, that the group of outside merchants exerts, affects the monoponistic structure to some extent, but also disrupts the links merchants have developed to collect the crop.

The situation was exacerbated by the very poor harvest the north had in 1984. The wealthy merchants of Ouahigouya especially were so aggressive when I was conducting my interviews that they were said to operate in villages 15 km from Bobo-Dioulasso. Their greatest impact, however, was felt in the provinces of Kossi and Mou Houn. Around Kouka, for example, in the harvest period, agents of Bobo-Dioulasso merchants were buying sorghum for 6,000 FCFA per sack. While the commission agent usually receives an additional 200 FCFA, Ouahigouya merchants were reported to have offered 7,500 FCFA per sack to some of them.

The situation was still very dynamic in December. The market of Kouka in Kossi is an intermediate bulking center in a very productive grain area. Merchants from Bobo-Dioulasso are very active here, but so are those from Ouahigouya who have large warehouses around the marketplace. Independent traders or commission agents working for merchants go to surrounding villages to buy grain and export crops and bring them to Kouka. When, in our visit of December 27, my assistant attempted to buy a sack of white sorghum in the market of Kouka, three different prices ranging from 8,250 to 9,000 FCFA were quoted to us; and even at those prices, traders were willing to sell only part of a sack. When by midday we went further north, to Kotoura, grain was even scarcer. A trader offered only two tines for sale at 1,500 FCFA each (9,000 FCFA per sack). On our way back to Bobo-Dioulasso, around three o'clock in the afternoon, we stopped in Koudougou which also had a market at day. A trader who had assembled two and a half sacks and who was getting ready to pack, offered a couple of tines for 1,350 FCFA (8,250 FCFA per sack), but when my assistant attempted to argue he changed his

mind and did not want to sell at all.

That, in all this movement, Ouahigouya constitutes the center of gravity is evident from the fact that prices were going up as one goes north (closer to Ouahigouya). Taking into consideration the cos of transportation to Bobo-Dioulasso (500 FCFA) and the commission of the agent and other expenses, in the market of Kouka and farther north at this date prices were already too high for city merchants.[20]

The situation in Kouka stands in contrast to that in N'Dorola, a large market center only some 80 km to the west of Kouka. The difference is due to the fact that the two centers are connected by a very bad road, half of which being barely passable by car. Therefore Ouahigouya traders do not go to N'Dorola and the marketplace is left to merchants from Bobo-Dioulasso, Orodara and OFNACER. Orodara is a prosperous and agriculturally very productive area, but grain production has been going down in the last few years because the population is shifting into the more remunerative activity of orchard growing (mainly mangoes and citrus fruits). In N'Dorola the prices quoted to us were much lower than in Kouka: 1,000 FCFA and 1,100 FCFA per tine of white sorghum.[21] But there too, large farmers told us that they had received offers of 1,200 FCFA and even 1,300 FCFA a tine (7,800 FCFA per sack) if they could supply large quantities.

Big merchants of Ouagadougou also told me that they used to set buying prices in the same way as the merchants of Bobo-Dioulasso. One of them even maintained that the arrangements concerning meetings and fines were actually copied by Bobo-Dioulasso merchants farm Ouagadougou merchants. However this practice seems to have been abandoned a longer time ago in the capital city. The reason is probably that very few Ouagadougou merchants or agents have a direct relationship with producers; as explained in Section 5, the first stage of bulking is very often in the hands of local independent traders, or is the job of a multitude of extremely small operators exploiting a very restricted geographic niche. A major part of the supply of the city comes from entrepôt centers such as Bobo-Dioulasso. Under such circumstances, an oligopsony at the level of producers becomes less important for the merchants of Ouagadougou. The central part of the country is almost parcelled out into influence zones, upon which the merchants based in the

regional center exert their pressure. Conceivably, the largest grain dealers of the capital could in turn have great leverage on these regional merchants thanks to their financial strength, and certainly they have a similar influence on the consumer market as in Bobo-Dioulasso. These points though, need further study. By contrast, there is more evidence on how the control is exerted at the lowest level of peasant marketing.

12. STRUCTURE IN VILLAGE MARKETS

The existence of a marketplace facilitates the contact between buyers and sellers and may be more favorable to competition in comparison to where resident buyers are the only option to farmers. Especially medium-level farmers who have moderate surpluses to sell often reveal a preference for market places. One example is the village of Baré which did not have a market until 1983. Until then most grain sales were made to resident buyers or in Soumousso which is close enough to some villagers' bush farms to use it regularly as an outlet even today. The initiative to establish a market was taken by major farmers, while elders were hesitant because they had an apprehension that the market would encourage theft. Nevertheless the market was established and the villagers bore most of the costs by cleaning the place, building shades, and providing a sacrifice.

The existence of a marketplace, however, does not ensure that the market for the farmers' products is competitive. The number of buyers who can enter the market is limited by the availability of funds, and the traders or merchants' agents often collude to exert a pressure on the price. This is confirmed in many parts of the country by traders and farmers alike. For example, in N'Dorola, I was told that independent traders and agents attend the market early in the morning before starting to buy and fix a purchase price for major cereals. The situation is similar in Guéléoungo. Here there are about 15 merchants and agents who come from Ouagadougou to attend the market which meets every three days. The evening before each market day they all travel in one of the trucks which belongs to the "president" (see Section 8). During the trip, and afterwards when they arrive in the marketplace, they discuss the situation and agree on price. Then they sleep all together in the same corner of the marketplace. In the morning of the market day they start to buy very early; and late in the afternoon they and their grain all come back, together again, in the trucks of the "president". This arrangement was described by the "president", by another trader, and by an independent observer. The collusion seems to be particularly successful in Guéléoungo because the grain is supplied by hundreds of

women who cross the Ghana border on foot with baskets on their heads, each supplying relatively small quantities.

Sherman (1984:113), gives another example by describing how the control operates in Manga. It was mentioned in Section 5 that here, by agreement, local traders keep the assemblers who come from Ouagadougou out of competition, in order to avoid driving purchase prices too high. On the morning of a market day the large traders of the town get together to discuss the price to offer. Then, throughout the day they monitor the transactions by walking through the market; those who violate the price regulation are sanctioned financially by being forced to sell all the grain they have collected at the price they have acquired it.

In a village market there is usually some additional demand for grain besides that created by merchants, their agents and professional independent traders. Other farmers, urban consumers who happen to be in the marketplace, and most importantly local brewers or malters and food processors (cf. Ouédraogo, 1983:72; Sherman, 1984:115) are responsible for that. Such actors do not participate in the collusion of traders and usually offer a higher price. The result is the existence of different prices within the marketplace. Thus, for example, on February 18, 1984 a village woman was collecting white sorghum at 1,250 FCFA a tine at the Baré market for her modest restaurant business, while at the same time the traders were paying 1,200 FCFA. Similarly on March 3, 1984 a foreign woman visiting the marketplace bought a tine for 1,250 FCFA while on that day traders were buying for 1,100 FCFA. Of course the difference can be in the other direction if kinship or similar links enter into play. Thus on March 17, 1984 a brewer in Baré is reported to have bought a tine for 1,200 FCFA while in that week traders had started to buy for 1,250 FCFA. Price differences persist because the internal demand is usually small compared to that of traders and merchants who agree on a lower price. Proportionately, the larger the "internal" demand, the less the collusive power of traders. Likewise Sherman (1984:117) notes, for example, that in the region of Manga the smallest bush markets where most demand is created by consumers, brewers or restauranteurs are effectually competitive while where the traders have a more important share of demand competition diminishes.[22]

At times traders who do not have an interest in joining the price agreement may also have a competitive effect. For example in Guéléoungo, occasionally traders from Kaya and Dori enter the market and offer a higher price to attract large quantities in a hurry. The regular traders withdraw momentarily from the market and wait until the intruders have collected what they want and leave. Then prices revert to their former level. This is a smaller version of what is happening on a region-wide scale in the area feeding Bobo-Dioulasso, as described in the above section. In the Guéléoungo case the effects are limited because the funds of those entering into competition are relatively very small and the intrusion is infrequent.

Sometimes farmers reciprocate in kind to colluding traders and merchants. This is not always the result of concerted actions, it may be due to individuals' feelings for what is fair. A major merchant in Bobo-Dioulasso told me that Village Groups can dominate the market when they start purchasing early in the season at official prices. As usually the funds provided to Village Groups through the ORDs are small, traders and agents wait until this money is exhausted and reenter the market at the former lower price. It happens, though, that farmers refuse to revert to the old price. They think it is unfair and withhold sales of grain. Then traders and merchants can either match the new price, or, if other areas are still supplying at the old price, withdraw from this particular area until later in the season. "The market has been spoiled" they say.

Farmers can also try to challenge traders in an organized way, though I heard of few successful examples of such pressure. In the village of Baré, for example, the ritual chief will occasionally regulate the practice of traders by delivering angry rebukes in the middle of the marketplace. Sometimes these concern prices. In 1984 late in November, red sorghum was still bought for 800 FCFA a tine in the village market while the same traders were buying it at 1,000 FCFA in Soumousso which also has higher transportation costs to Bobo-Dioulasso. The chief went to the market place in the company of the CDRs and declared that no villager would sell unless traders offered the same price as in Soumousso. Grain transactions stopped for a while. The outcome, however, was a failure because as the traders were getting ready to pack

and return to the city, some farmers who were anxious to sell approached them to make private deals and the effective price remained low for a few more weeks.

Farmers are not invariably in favor of higher cereal prices throughout the year and the effect they want to have on them may be at times in the opposite direction. Several months prior to that incident, early in June (in the preharvest period, when most farmers do not have much to sell anymore and prices are approaching their peak) the same chief of Baré interfaced to lower red sorghum prices. While some traders were paying 1,600 FCFA for a tine, the chief fixed the price at 1,500 FCFA per tine. This incident was related to me by farmers as a success, but the prices collected at the village market reveal that the prices continued their upward trend after a momentary decline (cf. Table 1). This measure was taken in order to protect the brewers and malters of the village who could not afford competing with the traders from Bobo-Dioulasso, and thus also to keep the price of sorghum beer within reasonable limits. It is worthy to note that even in a village such as Baré where there is quite a surplus offered for sale, in this period of the year the public opinion is shaped from the perspective of the consumer.

13. NONPRICE COMPETITION IN THE VILLAGE MARKET

Traders who operate in the same marketplace, when they agree on a buying price, compete with each other by means other than price to obtain as large a portion of the product supplied as possible with the least cost. The respective shares of different traders is ultimately determined by the relative strength of the funds they control, but in one particular market day or activity period an agent can find himself or herself with unspent trade money and thus lose potential profit.

Greater access to potential sellers is an advantage. The location of the trader in the marketplace, for example, can play a part in his or her share. In Baré the first spot close to the road whence most sellers come was occupied by the successful trader who works in collaboration with international merchants in Bobo-Dioulasso (see Section 4), and he has the largest share in the village market.

Another common practice is to have people (usually children) meet uncommitted producers in the marketplace or on the roads leading to the market and guide them to the trader or agent. This was mentioned by several traders in Bobo-Dioulasso and Ouagadougou and is also noted by Ouédraogo (1983:85) in the East. In Koundougou I was told that such children were paid 200 FCFA each at the end of the day. There was a strong feeling against this practice in the village of Baré, because it was felt to constrain the freedom of the seller; one of the strong reproofs by the ritual chief of the village, which I observed in October 1983, concerned such action.

Another way traders and agents may compete with each other is by playing with volumes. The conventional wisdom in marketing is that grading (sorting of products into homogeneous lots according to physical or subjective characteristics) and standardizing measures facilitates price discovery and this benefits producers, traders and consumers (Kohls and Uhl, 1973, quoted by Ouédraogo, 1983). In contrast, standardization may be against the interest of traders both as a group and as individuals competing with each other. In Burkina Faso one finds as measures: ladles, tin cans in various shapes, enameled bowls and baskets, all coming in an array of slightly different sizes.[23] Some of these measures have official versions, but they are not always enforced.

Haggling in the markets often takes the form of a discussion about the size of the measure to use, while the unit price is assumed to be fixed. Traders and sellers may meticulously compare their ladles or measure the same quantity of grain or legumes with two different units to make inferences.

One general principle of pricing in the cereal and export crops is that traders give a premium for supplying large quantities. Sometimes this is achieved by offering a better price disguised under a fictitious conversion rate between different units, for the sake of maintaining a theoretical unitary price. For example, around Bobo-Dioulasso a tine is said to be equivalent to ten large tomato paste cans and its price is accordingly 10 times more, but it can never take more than 9 times its content; thus one gets a better price if one sells measuring by the tine than by the can. Table 1 gives a comparison for certain weeks of per kilogram prices achieved in different transactions conducted with different size volume measures

The theoretical conversion rates are sometimes used in the opposite direction. For example in the central part of the country an enamel bowl of a specific size is widely accepted by the Mossi to be a standard unit of measurement corresponding to 1/7 of the tine. This however is a fiction because 7 such bowls actually fill more than the contents of a tine. When local traders purchase grain from farmers they measure the "tine" by using a bowl seven times whereas when they sell, the grain is measured with an actual tine. If one were to ask a trader to retail by the bowl they would agree only if the customer were willing to pay more than 1/7th the price of the tine. (This actually happens rarely because the sale of smaller quantities to consumers is the specialty of a certain category of retailer women who use the ladle.) A similar mechanism exists with respect to what is called the "hat", a crown formed at the top of the measure container by pouring the grain until it can hold no more. Traders buy with large "hats," but sell with flat tops. The same result is sometimes achieved by the systematic use of two versions of the same unit. For example Bonkian (1982:26) reports that in Ziniaré, merchants buy grain with a local tine which takes about 20 kg of grain and sell it with the official tine which takes about 16 kg. The profit of the trader is only partly realized as a difference in the price per

unit, while part of it derives from a smaller grain content for the unit. The same principle applies in transactions among traders themselves. In the Bobo-Dioulasso region most cereal sacks which arrive from producer areas weigh between 100 and 105 kg; traders in the city market rebag them to reduce the weight to between 80 and 90 kg.[24]

The ability to judge the quantity of a product in a measure is one of the most fundamental skills required in trading. Traders in Ouagadougou claimed that at first sight they could tell the relative amount of grain in any measure of the same type as the ones they have the habit of using. Reportedly discussion on volume size is rare in transactions among traders and merchants, and in case of smallest doubt the parties resort to measuring. This is not the case when traders are facing consumers or producers who lack the critical skill. Small traders in Ouagadougou mentioned cunningly to me that they would not turn down a consumer who insists on bargaining the price down, but would simply give him a sack containing less grain (see Section 6). Even when supplying grain for formal contracts some traders said that the sacks will be filled depending on how good the price offered is.

When traders buy from farmers, the manipulation of volumes becomes one of the main causes for "distortion" in the market. One of the stereotypes of the common lore in rural areas is that of the trader or agent who falsifies measures to deceive clients, and many foreigners notice in marketplaces the measures beaten out or in so as to hold more or less grain. Many producers do measure their grain or other products before taking them to the market and as a result arguments over the measuring are common. Such conflicts, however, are not sufficient to homogenize the measures.

An event that happened in Soumousso in the harvest season of 1984 will provide an illustration. At that time red sorghum was sold commonly for 1,000 FCFA a tine. A woman trader was paying 1,100 FCFA but was buying with a locally constructed tine that looked very much like the standard one. A farmer took her a sack of red sorghum (6 tines), left it to be measured and went about some other business. When he came back to pick up his money she informed him that it came to 4 tines. It so happened that the farmer had carefully measured the grain at home: he started an argument accusing her of dishonesty. The trader offered to

pay 1,200 FCFA for each one of the four tines to quiet him, but the farmer was still dissatistifed and called the CDR. The members of the committee measured the trader's tine against hte official tine and found that it was about 1.5 times larger. As a sanction the faulty tine was taken from the trader. She was also given a fine of 5,000 FCFA and was forbidden to attend the market for two weeks. Nevertheless she had bought grain using the nonstandard measure for several weeks, despite the vigilance of some farmers and the CDR in this market. Also had the government not incited some political awareness among the population, or if the CDR had not included farmers among its members, she might not have been sanctioned at all.

14. PERSONAL BONDS BETWEEN FARMERS AND TRADERS

One of the main strategies of buyers at the village level is to develop personal bonds with farmers who usually have grain to sell. Traders who buy in villages talk about "their" clients. Merchants in the big cities often comment on the need to develop a loyal clientele, and many offer the lack of such clientele as the greatest difficulty in obtaining grain in village markets. Personal bonds developed between trading partners have been well studied elsewhere (most notably in the early work of Mintz, 1961 and 1964) and have been related to a reference for long-term advantage over short-term profit in a high risk environment.[25] One point which needs to be stressed, however, is that the parties do not necessarily profit from this relationship equally, especially when they do not engage in it with equal power. The benefits that the client derives from a personalized relationship vary. It may involve minor material benefits. Farmers in Baré mentioned that some traders may occasionally give small gifts to their frequent clients, such as a few dried fish, a little salt or a piece of soap. Perhaps in this way new dimensions are added to the market link between seller and buyer which results in a fuller social relationship. The trader thus pressures the farmer to sell to him or her.

Probably a more important factor in building permanent relationships with farmers who have regular and large surpluses is the assurance to buy his or her grain at any time of the day or the year at the going price. This problem may sound unusual for a market that seems to operate without hindrances. Yet most of the operators in the villages have small funds and may more or less frequently find themselves incapable of absorbing a big purchase either at the end of the day or in a certain period of the year. This may be due partially to the traders' increase in their stock levels in expectation of rising prices at certain periods of the year. Large farmers, for their part, may want to sell to take advantage of high prices, or may have a need for cash. Therefore it is important, especially for farmers who have a considerable capacity to sell, to have the guarantee of a ready buyer throughout the year. As an elderly trader

in the Bobo-Dioulasso market put it "If you want to keep your client you have to buy even when you don't need to." It is evident that big merchants' agents and resident buyers or independent traders who have access to large operating funds have an advantage in this respect. This mechanism explains how it is that the best endowed merchants and traders also happen to be the ones with the largest personal linkages which allow them to attract very large volumes of grain.

One of the personal favors that traders provide to farmers is loaning money. The extension of credit by a merchant to the farmer who is also a supplier of grains is often described as a trap binding the producer into an obligation that is ultimately against his best interest. It is certain that the practice of "advance sales" occurs in some parts of Burkina Faso, but in the areas where I undertook research, loan bonds did not seem to be widespread or important in this respect. In Bentenga I recorded only one pre-harvest loan transaction. It involved a well-to-do farmer who wanted to buy a cart and a buyer-agent operating with funds provided by an Ouagadougou merchant. The loan was paid back in grain and even though interest was not formally recognized I calculated the rate to be very high (26 percent in less than three months) (Saul, 1982:201). In Baré several farmers told me that a trader would be the first person they would think of if they needed to borrow money, but there was no evidence that interest was calculated. Another practice I encountered was for a farmer to receive a sum of money from a trader with the promise of delivering a certain amount of grain in the following week. The sale was considered concluded when the loan was taken, and if there was a rise in price in the following week the farmer did not receive the difference. In most such transactions the farmer involved is relatively affluent, while the lending of money is seen as a favor done by the trader and reinforces the personal bonds between the parties. It has to be kept in mind that the sanctions against default are very weak. Traders screen demands for loans very carefully and grant them only to those farmers who are likely to sell large quantities of grain (as well as having a long and friendly relationship with them). The trader naturally expects that the farmer will sell his grain to him/her, but this cannot be strictly enforced.

To develop a large clientele and, especially one that includes large

farmers who can sell a lot of grain, takes time and effort, requires special personal skills, and is an important asset in the trade. A member of the village community does not necessarily have a priority when it comes to monetary transactions. In Baré there was a successful young farmer, who on the side engaged in a little foodgrains speculation with his savings (a peasant-trader who "sits on his grain" in Sherman's terms (1984:101)). In 1984 he could not buy any sorghum because, he said, there was not any for sale. I pointed out to him that traders purchased several sacks every market day. He explained that they were getting it from their clients and since he did not have a permanent clientele he could get grain only when there was a real abundance (the 1983 harvest was below average).

The interesting question then becomes: How can such personal trade relationships be built? Merchants indicate that at the time when there were still unexplored areas at the periphery of the national market, it took some prolonged temporary residence in the locality in question, close personal relations with the people and some propaganda on the virtues of getting involved in the market. This is rare now, because most areas are already open to trade. Where the cereals business is already active, and merchants and traders have already been established, one way is to attend a target ring of markets consistently in the harvest and post-harvest period, try to attract some of the "surplus" offered by infrequent sellers who are better in markets where there is a larger offer, but in any case, a newcomer trader is likely to attract only marginal sellers. Proximity may provide some advantages. As discussed in Section 5, in the central part of the country local merchants based in secondary centers came largely to control these kinds of links in their sphere of operation, especially when they had access to large funds (through bank loans), at the expense of merchants from Ouagadougou. The situation is not yet as evolved in the western region.

There are yet other techniques that innovative traders use to establish contact. In Kouka I was told that a merchant was contacting major farmers in the area, as the officially appointed buying agent of the locally active plow loan program administered by the ORD. A farmer would not necessarily sell to such a person at a low price, but his claim was probably giving the merchant an edge against his competitors.

There is reason to believe that the personalized long-term relationships that buyers develop with producers work to the greater advantage of the former, because it further segments the market by introducing an element of monopolistic competition even in the physical presence of several traders.

The oligopsonistic tendencies described so far for village markets explain the otherwise unintelligible existence of multiple prices in them. This phenomenon has not been properly explored, because, as Harris (1982) points out, there has been an undue emphasis on the spatial integration of marketplaces in the economic treatment of West African grain prices. While it may be true that, sooner or later, local market segments respond likewise to the same supply and demand pressures (as a result of which one may sometimes find a general correlation in prices over large territories), the pattern of price differences at any given moment is aberrant if one considers only transportation costs. One example here is the price difference between the market of Soumousso and that of Baré. As briefly mentioned in Section 12, grain prices were higher in Soumousso for several weeks in the post-harvest period, even though transportation costs to Bobo-Dioulasso are slightly higher as well, and despite the fact that the same traders attend the Baré and Soumousso markets. The reason for that probably lies in the fact that Soumousso is a larger and older market attended by many more independent buyers as well as consumers who on the aggregate, put more pressure on organized traders.

The occurrence of direct sales from individual producers to mobile urban consumers in an imperfect market has been observed elsewhere, most notably in Senegal (Harris, 1982:76). Naturally, there is a limit as to how large a price difference between two points can be tolerated when transportation between them is possible. Sellers can take their grain elsewhere and engage in arbitrage which pushes different market centers into competition to stop the flow of goods. But in that respect the farmer has disadvantages. Transportation between secondary market centers is more costly than that between these centers and the big cities, and there is also the factor of scale. The farmer who wants to take his crop to a distant market actually faces a step-like cost function, because between what he/she can transport on the head or on the

back of a bicycle and the quantity that justifies the cost of hiring a donkey-cart, there are no intermediary options. This implies that the tolerance to price differentials among secondary and tertiary centers is considerably higher than what one would calculate on the basis of transportation cost differences in the commercial vehicles that traders and merchants use.

In fact price difference between markets can reach such high points that the solidarity between traders collapses under the pressure, before arbitrage starts to work to reduce their magnitude. In the first week of December, a few weeks after the ritual chief of Baré made his unsuccessful attempt to bring the price of red sorghum to the same level as in Soumousso (see Section 12), a clash between the traders themselves resulted in a change of price. The major trader who had the advantageous position on the road intercepted a woman who was bringing grain to the market in a big basket on her head and purchased her grain. This upset a woman trader who claimed that the farmer was one of her special clients. She started an angry dicussion with the seller which then turned into a loud argument with the first trader, in the heat of which she declared that she would raise the price of red sorghum to 1,000 FCFA a tine. Needless to say, her act was deeply appreciated by the villagers and she collected a large quantity of grain in that day. The other traders had to follow and this is how the price of red sorghum was adjusted to the level of that in Soumousso, after a delay of several weeks.

While the merchants and traders can exert some pressure on the price, the total volume offered for sale is still a function of the price. This is why buyers will raise the price on their own when the offer is slacking. I pointed out that big city merchants meet several times during the buying seasons to raise the maximum price they agree to offer to producers, to adjust for supply conditions. At another level a similar arrangement takes place among traders who attend the same village market. It is as if the traders had the following model of the grain market: the amount of marketable grain (and export crop) is limited; it starts to come out in great abundance during harvest; when a certain proportion of it is purchased at the low starting price, the supply slows down; a slight raise in price level is reached but grain is still rare. In this period big city merchants start to lose interest in many

productive areas because impassable roads make the evacuation of the product impossible. Large cities have to rely on the grain that has been purchased previously and stored in them, and on meager shipments from a few secondary centers which are on national highways. In this period consumer prices in the cities continue to climb but it is difficult to generalize on what happens in villages. The markets are dissociated and prices start to vary independently following local factors. Where stocks within the village are sufficient relative to internal demand in the rainy season, prices tend to stabilize when the village is cut off. But the reverse may also happen depending on the wealth of the village (irrespective of whether or not this wealth originates in farming) and on the distribution of this wealth among households. Where there are large differences in production and stock levels among households, the big producers may sell their surplus to urban agents before the rains set in because local demand is unreliable. The aggregate result of such individual action however may be an acute shortage in the village during the "hungry period". Prices can rise to levels higher than in urban centers and it is not uncommon to see villagers who travel to regional centers to purchase grain and transport it to the village with their own means. In this period grain prices are sometimes higher even in regional centers which are not totally cut off from major cities, perhaps because the private sector organization is basically extractive and the back flow of grain is not institutionalized (Ouédraogo, 1983). The trend is evident in the six graphs given by Berg (1977:101-103) which chart price differences between Ouagadougou and some major regional centers. (Harris (1982) interprets such price trends by reference to the spatial monopoly of major cities.)

When traders adjust the price in village markets, changing the grain content of the measure provides a smoother transition than changing its price. Changing the price of the unit is a major step and seems to be hardly reversible even when traders make miscalculations. In August 1983 when I had just started to work in Baré, the traders in the market raised the price per tine of shea nuts by 100 FCFA. The place was instantly flooded with nuts; the traders realized that the stocks in the village were higher than what they had thought and that they had offered the rise too soon. They decided to back up by cutting the price to its former

level. Upon this, the ritual chief performed one of his prohibitions in the marketplace, which was effective because village women (who almost exclusively supply the nuts) refrained from bringing the product and the traders were forced to revert to their higher price.

Prices can progress even within the same day, as I had a chance to observe in Soumousso and in Koudougou. In periods of frequent price changes in such large markets, traders start by offering a lower price for determined sellers who come to the market early in the morning to rid themselves of their commodity. When the flow of grain is reduced and also occasional buyers such as visitors, other farmers or small independent traders show up, traders start offering 100 FCFA more per tine. The price may go even higher around two or three o'clock in the afternoon, as traders are ready to pack to return to the city and there are no more farmers who bring grain. The highest point is reached when traders start to deal with each other; independent traders sell to each other or to the assemblers of big city merchants, what they don't want to transport or store. The price for these deals naturally includes a small profit for the first handler.[26]

Prices also vary because traders offer private deals to their clients who have large quantities to sell. A farmer who decides to sell a big lot may approach his trader and ask for a special price. But usually it is traders who contact successful farmers. The farmer usually wants to hold on to his grain waiting for higher prices; the trader tries to entice him to sell as early as possible by even offering a price higher than the one in the marketplace. A few farmers told me that they were motivated to sell by a seemingly high price and that later they regretted it. Such a special price is at times offered in violation of the price agreement made with fellow traders and so brings the risk of their sanction. Hence it is kept a secret. This is a curious facet of traders' strategy. By making public the purchase price they set among themselves, they also transform it into a basis for differential pricing. The air of secrecy that surrounds private deals creates a collusion between buyer and seller, and by strengthening the bonds between the two, reduces chances for collective action or retaliation on the part of farmers.

15. THE DISPOSAL OF GRAIN BY FARMERS

Farmers do not constitute a homogeneous stratum, and those with different production conditions and endowments have dissimilar marketing behaviors. The relationship between stratification and grain marketing was brought to the fore in the early 1960s in discussions about the effect of introducing grain surpluses to South Asia.[27] Economists in West Africa have discussed stratification among farmers with respect to two related issues. One of them is the difference in grain storing behavior among farmers in different strata, as an element of the pattern of aggregate grain supply to the market. The second is the differential effect of price variations on different types of households.

For both of these questions, it is important to determine the proportion of grain sold and purchased in different periods of the year. This is one of the hardest issues to solve with conclusive evidence, because national statistics do not include data on grain transactions. And yet, to anyone who has been year-round in the village or city markets of Burkina Faso and observed the post-harvest glut, or who has had discussions on the subject with farmers and traders, it seems beyond the shadow of a doubt that the largest proportion of marketed grain leaves the hands of the producer in the periods of harvest and immediate post-harvest. This has also been confirmed by several recent independent studies conducted in various parts of West Africa and based on surveys of village households, such as Ross (1979) in Senegal, Sutter (1982) among the Hausa in Nigeria, Ouédraogo (1983) and Sherman (1984) in Burkina Faso.[28] Ouédraogo even finds evidence for "green sales" (1983:209-217). The question then becomes: Do all households behave in the same way in this respect and for what reasons?

As a preliminary to exploring this question, it is important to establish that in Burkina Faso there exists today a group of large farmers who operate on a scale incomparably larger than the average farmer, and who produce much more than what they need to sustain their families. Their purpose in production is to earn cash by selling this produce. Unfortunately, again for the lack of statistics, it is not possible to accurately know how important in numbers they are or what proportions of the aggregate grain supply they provide. The existence of

such a group seems to have gone unnoticed also in the first-rate and abundant sociological and economic literature produced on the country in the last two decades. This oversight is probably due to the fact that such farmers are often excluded from the study during the sampling in most surveys which have a village focus, because they stand out so much from the typical farming population in social and economic characteristics. Most such producers do not participate full in the social activities of nearby communities. Many are immigrants in the areas they farm. The abundant literature on the Mossi migration to the west of Burkina Faso has to be reevaluated from this perspective. Often their migration is the result of, not necessity, but better endowment in cash funds and labor which allows them to take full advantage of greater land potential. In the west, migrant farmers are invariably known to be the largest surplus producers. This is true not only for the Mossi, whose settlement in large numbers in a distant and culturally different area has drawn much attention; there are also migrations over shorter distances which are part of the same pattern, even if the settlers and hosts involved all belong to the same ethnic group. Around Soumousso, for example, one finds Mossi migrant farmers, but also migrant northern Bobo farmers, all cultivating large bush farms outside of villages and largely excluded from their social life, and supplying large quantities of produce to the market.

Large surplus farmers are not all migrants; they may also be residents of their native villages. In addition they often have significant nonfarming sources of income. They may operate a flour mill or a bar, engage in trade, or have an occupation such as welder, mechanic or tailor. Some traders in Bobo-Dioulasso told me that originally they were large farmers who started their trade with proceeds from selling their own grain surplus.

Another type of large farmer is a retired civil servant or ex-serviceman. Many such individuals have orchards and grain farms and use their savings or salaries to purchase farm inputs such as modern equipment, fertilizers and other chemical products or labor. Elsewhere I have described a few such individuals who farmed around Bentenga (Saul, 1983). I encountered several others around Baré when my survey was well under way, none of whom was covered in my initial detailed census of the village. Villagers also showed me an extensive tract of land that a

former minister in the government of Saye Zerbo had cleared on village land with the intention of cultivating it using modern equipment, a project that did not materialize because a coup d'état removed the government from power.

Even some important urban merchants or their managers engage in serious farming. Besides those among them who never severed their ties with farm work, I encountered in Bobo-Dioulasso young and highly educated members of the business class who, in collaboration with close relatives not so educated, were farming areas of 30 or 40 ha. From now on I will refer to all these varieties of large farm producers as "predominantly market oriented farmers."

Predominantly market oriented farmers consume a very small portion of their production and can generate cash income on the order of 3 or 4 million FCFA from sales of farm products; but they usually also have heavy outlays of money to pay for modern inputs and the installments on tractors or other heavy equipment, if they buy them on credit. They make most of their production decisions in such a way as to maximize this cash return. They produce a large variety of commercial crops, for example, besides cereals, such as cotton, vegetables or peanuts; and they are very keen on new outlets that develop for alternative crops. I was inquiring from a large farmer in Kouka why white sorghum was so dominant at the expense of red sorghum. My interviewee explained that it was easier to sell white sorghum (probably because the large demand here is from Yatenga where the need for food grains is large and where Islam has curtailed local beer brewing); but he was quick to add that if I was interested in red sorghum it was very easy for him to shift to it in the following season. Of course these decisions are not made purely on the grounds of prices. Cotton, for example, is not interesting in terms of returns to labor; also as another large farmer pointed out, one can neither eat it nor store it so that it has to be sold right after harvest.[29] In the productive provinces of the west most large farmers still devote five to ten percent of their acreage to cotton, partly to maintain good relations with the ORDs which have this crop as their main concern and thus obtain the critical inputs and credit they provide, and partly to diversify, because in years in which sorghum suffers greatly, cotton may do well.[30] Nevertheless many farmers in 1984, both large

and medium, were cutting down their acreage in cotton by half because "everybody wants sorghum."

Predominantly market oriented farmers are also very sensitive to price movements within the year and are willing to wait for prices to rise in order to sell. They are well informed about prices not only in their area but also in distant centers. I asked a farmer in Kouka (who estimated the area he farms at 40 ha.) if he followed the prices in the city. He laughed at my question. He said that he has a "brother" in Bobo-Dioulasso who is like a gauge, when prices go up in the city he comes to spend some time with him in the village and tells him all about it. The marketing philosophy of predominantly market oriented farmers can be summarized in the words of a Mossi farmer I met in N'Dorola. "The key to the farmer's success is patience."

Yet it would be wrong to assume that all the marketable production of such farmers is sold at the time prices reach their peak. For one thing, even in such households adult dependent members have their own separate budgets and make their own decisions under different circumstances than the head of household. Very often at the end of the year, the heads of household reward the women and adult men in the farming groups by giving them a generous gift of grain. This is widespread among the Mossi (I observed it in Bentenga as well as among the migrant Mossi around Kouka) and the Bobo. Among the Mossi I once witnessed a dissatisfied young adult son even steal a sackful of sorghum from his father's store in the harvest period. In the large households of successful farmers such post-harvest rewards may amount to several sacks and usually most of this grain finds its way to the market immediately.[31] Then come gifts to members of other households, most notably sisters and other elderly relatives (mostly women) some of whom anxiously wait for these donations from prosperous brothers to obtain a little cash for long postponed needs. Such relatives are also allowed to glean the harvested fields. To this one could also add the important amounts of grain distributed at harvest parties which are organized according to old customs, even though this might be considered as a productive expense, and such collective work is usually avoided by the predominantly market oriented farmers discussed here. Thus, redistribution within the household reduces the amount of surplus grain available for sale, and was also suggested to be,

by some farmers interviewed, a major contribution to the post-harvest glut.

The marketable grain left after these deductions can be on the order of 150 to 400 sacks. A large cache like this is what grain merchants and their agents are after as the dry season wears on and rains are about to start. They offer a premium to induce the farmer to sell all of it at once. The farmer may do that, but he also has other considerations. Farmers have an aversion to holding large sums of cash as also noted by Sherman (1984:57). To avoid whittling away their funds farmers may prefer to store their wealth in other forms. The only difficulty with the highly liquid nature of money is not the well-known problem of potential borrowers (or the temptation to increase expenditures on consumption); cash also remains idle and insecure. In Baré there were several farmers who had savings accounts in the bank, in the post office or in the Catholic Mission (no interest bearing accounts in the last two cases). But this is unusual and related to the large number of ex-servicemen and to the close ties the village population has with the city. In the Manga region and in the large cereal producing areas around N'Dorola and Kouka, I had the impression that very few farmers had bank accounts. (Only one was pointed out as a possibility during my interviews in Kouka.) Not only does the value of money decrease, but even keeping it safe becomes a problem. Theft of money stashed at home is one of the most common crimes in villages and bush farm houses. This is one reason why farmers defer the sale of their marketable surplus until the money is needed for a project. Then wealthy farmers offer explanations such as "I will never sell until I have to purchase something," which superficially sounds like a claim for a distress sale.

Since financial institutions are not widely used and grain is easily convertible to money throughout the year, in order to understand the sales decisions of farmers, one needs to take into consideration not only grain prices but also factors related to the farmer's purchases. For example if the farmer intends to purchase cattle for a plow or to build a herd as an investment, the timing of the sale may depend on the availability and prices of cattle as well as that of grain. If he needs to make a down-payment towards the purchase of a tractor or plow provided by the extension service, the time of payment is closely set for him by that organization. Of course, there are also social pressures for

expenditures. All of these may result in a bimodal selling pattern, according to which the head of the successful farm household sells part of the crop in the post-harvest period at depressed prices and the rest in the preharvest period in order to take advantage of high prices (Harris, 1982:34).

The minority of predominantly market oriented farmers are usually in favor of seasonal price variations, an attitude not shared by the majority of farmers I know. They are against any kind of stabilizing policy measure. For example, in N'Dorola during one of my interviews I happened to mention that the official prices were still slightly above market prices. This remark upset the wealthy farmer with whom I was talking. He was concerned not so much with the immediate effect the official announcement had made on market prices, but with the possibility that it would constrain their rise later in the season. He maintained that farmers who rely on the heavy equipment and inputs necessary for modern farming could never make money on the announced official prices.

Nevertheless, to profit from high prices by selling late in the year is not unproblematic for many large producers. Another migrant farmer in Kouka argued that it was immoral to sell at very high prices, that the people who did that were actually responsible for the very high prices. When I suggested that large stocks among farmers until the pre-harvest period might prevent prices from rising so much, he disagreed. I believe he was sincere, even though like most farmers in his position, he was actually selling so that he could take advantage of high prices. I interpret his humored reprobation as the indication of a moral attitude which stems perhaps from the conflict between individualistic practices and a communitarian ethos.

The second type of farmer, often called subsistence or self-sustaining, constitutes the massive majority of the rural population in Burkina Faso, as elsewhere in the Sahel. One finds a gradation within this stratum as well, from the very poor to well-to-do farmers who aspire to become rich. What differentiates these latter from the category of predominantly market oriented farmers is that in making their basic production decisions they have the overriding concern of ensuring the consumption of household members; and technical considerations, such as the type of soil in the tract they presently farm or the availability of household labor in bottleneck periods, play a greater role.

In a good year some prosperous farmers I would include in this group may have a marketable surplus as high as half their total production. But the size of this surplus varies greatly depending on rainfall conditions. The acreage cultivated also varies from year to year depending on the farming cycle. The initial clearing in a new tract usually results in a small main field; in the following years the farmer cuts out a little more bush to increase the size of his farm in each farming season. After five or six years, however, the acreage reaches an average size, because from then on the portion added to the field is approximately equal to that which is abandoned. This average is so established that even in bad years there will be enough food for consumption and in most years at least some surplus to sell. The composition of the harvest depends on many technical factors. The Bobo, for example, usually start a farm in the lowest point in the topo-sequence, which is usually suitable to maize or sorghum, and gradually move upland towards ridges with stony and lighter soils suitable for millet. Newly cleared sections are covered with sesame late in the sowing season; different types and varieties of cereals are rotated in fields intercropped with cowpeas; when the fields are tired they are used for fonio, peanuts, ground peas or cotton.

There are clear-cut consumption preferences as well. In the villages around Bobo-Dioulasso and among the Mossi around Manga, the grain preferred for cooking is millet for a variety of reasons having to do with taste as well as ease of preparation and versatility. Among the Bobo white sorghum, which is recent as a food grain, comes in second place. Red sorghum, again as among the Mossi, is desired for brewing. Bobo farmers do not like to eat maize, except as a snack roasted when it is fresh. This set of preferences is the reverse of the one dominant in the cities where demand is highly influenced by civil servants' and other salaried personnel's choices.

This complementarity of preferences produces a very clear pattern of sale. In Baré which has very good soils for maize, this crop was almost totally sold and when demand for it went down many farmers partly shifted to other cereals. Red sorghum, when it is not reserved for ceremonies that call for beer, and if there is enough food grain, is also totally sold. White sorghum is consumed, but if there is an excess, it is sold.

Millet is the cereal to be marketed the least and the one most preferably purchased even if its price is considerably higher than other grains. Rice is appreciated as a casual delicacy and purchased in small quantities at high prices. In the few projects where it is cultivated as a monocrop (such as the irrigated perimeters of the Kou valley or in Djonkelé) farmers prefer to sell their rice and purhcase millet and sorghum. In order to avoid the losses associated with the marketing process, such farmers also commonly exchange rice for an equal volume of sorghum with other farmers in the area. The habit of eating rice, however, is spreading among those who aspire to a lifestyle perceived as urban. In Manga, for example, some well-to-do farmers who had educated sons were purchasing large quantities of rice consumed daily in a midday meal. (Many of those farmers were producing large quantities of red sorghum which they sold to purchase white sorghum as well.)

Naturally, the offer of grain is also shaped by ecological factors. The north is known to produce mostly millet, while as one moves to the south the proportion of sorghum and maize increases. Some situations can be explained by the interplay between ecology and cultural practice. Within a radius of 50 km from Bobo-Dioulasso, there is a zone of red sorghum (which was particularly abundant in 1984 due to favorable rainfall) while further north, in the fertile basin of the Black Volta white sorghum is the important crop. Manga also has the reputation of being a red sorghum center, while the rest of the province produces mostly white sorghum.

16. NONCENTRAL GRAIN DISPOSAL DECISIONS WITHIN THE HOUSEHOLD

As Hill (1969) has shown for the Hausa of Nigeria, and as confirmed by several other studies conducted in the West African Savanna in the last decade, most self-sustaining households purchase as well as sell grain, and the internal demand for grain is an important element of the market even in surplus producing villages. The information in many such studies, however, is often presented in aggregate for all members of the household as if there were a unique common budget for it. In reality most adult dependents within the household group that is usually taken as the sampling unit, have an autonomous budget of their own. Middle-aged women or married sons, for example can control significant resources. Within the farm-household, grain may be purchased by one set of individuals and sold by another. Such a transaction does not necessarily indicate the inability of the household to produce enough food for itself and the aggregate volume of village grain transactions is much larger than the sum of deficits and surpluses.

Among self-sustaining farming households, the decisions over the disposal of grain are even less centralized than among the market oriented farmers described in the preceding section. Hence the rationale for the timing of sales and purchases will be different, not only for different households, but also for different individuals within them. At harvest time the head of the household distributes to women and adult sons part of the collective produce and expects them to take care of themselves and their children during the longest part of the dry season. Adult dependents are also expected to add to this grain the produce of their private farming endeavors. Among the traditionalist Mossi the contribution of women to the diet is so significant that some ethnographers have described it as a norm according to which the head of the household does not have the obligation to feed the household during part of the year.

Different dependent individuals take different options in the way they manage this personal grain budget derived from private farming and donations by the head. For example, bachelor sons may sell grain in the harvest period and then spend money on buying cooked food or beer in markets. Married sons, in contrast, often have an important private farm

and grain store, especially when they are under, not their immediate father but, a more distant senior agnate. In Bentenga in one of the households in my sample the semi-independent unit of a widow and her adult son had a larger production than that of the elder head of the household who was compelled to purchase grain in the middle of the rainy season while the household as a whole shows a surplus in aggregate records. (Saul, 1982:230). Adult dependents do not necessarily farm in their free time. In Baré, for example, many young men prefer instead to spend their effort and resources in wage work or small trade, and they purchase food to supplement their wive's ration from the collective household granaries. In general, dependents have less of an inclination to store grain in order to take advantage of price rises. One factor in this attitude may be the apprehension to have to return the grain to the common budget, in case the household faces a food emergency situation. Thus the distribution of grain within households affects both the supply and the internal demand for grain in villages.

The most important demand for grain within most villages, however, derives from small scale restaurant cooking and from beer brewing (where it exists). In Manga it was common for brewers to purchase red sorghum from their husbands, the epitome of separate budgets within the household (Saul, 1981). The organization of the trade in cooking and brewing then, has a serious impact on the "internal" demand for grain in the market. When cooking and brewing is in the hands of professionals who control relatively large sums of capital, these women purchase large lots in the harvest period to take advantage of good prices and provide competition to traders. If, on the contrary, women control little capital and engage in such operations occasionally, their demand is distributed more evenly throughout the year, and they follow the price cycle more passively. This was largely the case in Baré, where wives often pay for the grain they are given by their husbands when they have sold the beer. This arrangement may work to the mutual benefit of the couple when there are limited outlets for the grain, but in the developed market conditions of the present, usually it is simply a way for husbands to support their wives who have very little capital by keeping them in business.

The demand on the part of brewers and cooks who live in the cities also has a direct impact on nearby village markets. In Bobo-Dioulasso

many brewers give important sums of cash to relatives who live in villages, to provision themselves in red sorghum in the post-harvest period. In Baré in 1984, in every case I encountered of a farmer who bought a significant quantity of grain in the post-harvest period, the purchase turned out to be for a "sister" in the city. This is similar to the demand created by urban consumers who visit villages or send money to relatives there, a practice by reference to which traders explained the great slack in consumer demand that occurs in the cities in the post-harvest period.

The head of a household has considerations that are different from those of dependent men and women in the disposal of grain. Normally he has the highest grain budget in the household, and often the highest surplus to sell. In contrast to dependent members, his concern is the long-term needs of the farm group; good and bad years are expected to alternate and he has to maintain a safety stock. In most years grain consumption and sales do not equal production (see Ouédraogo, 1983:VII-12). The head usually builds up his stocks in good years and is forced to reduce them in bad years; in such a year he will also respond, of course, by reducing his sales even though prices are at very high levels. When grain is stored on the head it keeps well, but now by using a mixture of modern insecticide powder supplied by the extension service and ash, farmers can also successfully store threshed grain in jute sacks. There are heads of household who use their stocks as a form of savings and carry over even the marketable surplus from one year to the next, partially in order to obtain a larger volume to sell at once and thus profit from a premium price, and partially perhaps with an eye to the possibility of speculation.

The ideal for self-sustaining farmers is to wait until the year's crop is mature enough, and to sell the surplus of the past year only when one can be sure of the present crop. There are even farmers who, if they have money, purchase grain during the harvest, either to cover their deficit or to sell later, often in small quantities, for pocket money. There is a risk of waiting too long to sell however, because falling prices are communicated fast between distant areas supplying a major center such as Bobo-Dioulasso and Ouagadougou, and as the season in one of these areas can be unpredictably advanced, prices may take a sudden

decline. Often prices take a downward trend in August or early in September, before the harvest of early maize and red sorghum. For example in 1978 in Bentenga, red sorghum prices started their decline weeks before the harvest. The first week this happened, those who had a stock in the village rushed to empty their granary, thresh the grain and take it to the market. Prices, they reasoned, would be lower each coming week, and this proved to be true.

Despite this aspiration to take advantage of high prices it is yet true that most producers sell most of their marketable grain in the post-harvest period. The action of heads of self-sustaining households is one of the main contributions to the glut in the grain market in this period. The reasons for this behavior are well described in the literature. My observations confirm that genuine "distress" sales do occur. In the villages where I worked, people frequently mentioned grain sales because of a disease in the family or the sudden necessity of a ritual. This however is only part of the story and concerns primarily the more destitute farmers.

Another common occasion for untimely grain sales by the head of the household is the predictable expenses related to production, an important question rarely discussed in the literature. All loans from the extension service for modern farm inputs, for example, have to be paid back early in the dry season. Among the Bobo many farmers also engage youth groups for work in the farm and have to pay them in the harvest by selling grain. Even when relatively well-to-do farmers borrow money at usurious rates, often they do so to use it on income-generating or income-saving activities, such as buying or renting a cart for the harvest. The middle-range farmer is not totally constrained with only one option and, as other researchers have observed, he is manipulating to make the best out of a limited range of possibilities. And yet, it is also evident that he is choosing from a position of weakness created by the lack of resources. As a result, he may engage in transactions disadvantageous to him, and this is true even for most well-to-do self-sustaining farmers in Burkina Faso. This vulnerability is most evident in the dramatic inter-seasonal grain price fluctuations and the intrinsic inability of the majority of farmers to take advantage of them. The weakness is ultimately due to the extreme dearth of capital

among the farming populations and its concentration in the hands of merchants. Heads of household who have cotton, for example, stop selling grain when they have received the cotton money.

A final point of relevance to farm level storage is that farmers cannot take advantage of the rainy season consumer price rises when they live in places where roads are flooded, and where prices reach their peak point in the beginning of the rainy season (see Section 14). In such villages there is no point in keeping the stock until the rainy season, even if it is possible to do so. In order to avoid such an eventuality, predominantly market oriented farmers select sites which can be reached by trucks throughout the year and clear manageable paths from the main road to their farm. This is why a traveller along the highways in western Burkina Faso sees practically only the thatched roof huts of the migrant Mossi.

17. CONCLUSIONS

The channels that are responsible for the flow of grain and export crops in Burkina Faso have been shaped by the dendritic system that European companies initiated in the 1940s to extract oil seed crops. Collection agents who initially operated with advances from these companies gradually accumulated enough capital to become independent and to control the marketing of food crop and export crops. The critical factors in this process were the availability of large bank loans and a favorable political climate. The evidence does not show that the trading sector suffered from the neglect of the government. On the contrary, its accelerated growth would not be possible without the official support of the government bureaucracy.

A very large number of middlemen assure the flow of grain from producer areas to the cities, but a small number of major merchants have a great influence on these conduits by virtue of controlling very large funds. Major grain wholesalers are politically organized in associations which can also be used for price agreements. In Bobo-Dioulasso the impact of such merchants on producer area prices is direct, while in the Mossi plateau this impact is mediated by large regional merchants who are based in secondary centers. Major grain merchants are not organized at a national scale yet, and there may be competition between groups established on a regional basis. In recent years the major supply areas of the western part of Burkina Faso are the stage for such competition at the expense of major merchants based in Bobo-Dioulasso. Consequently the marketing of grain has a more dynamic character in this region, a dynamism which at the same time as it shakes the structures controlling the trade, also reveals the level at which these controls are placed in the first place. This dynamism is also, by creating an insecure trade environment, disrupting the channels that have been so far responsible for bringing the grain to the cities.

In contrast to major traders, the majority of middlemen involved in the grain market operate with very small funds and rely on quick turnover. It would be an error, however, to try to deduce the characteristics of the grain market only on the basis of their behavior. Even when they are independent such actors are ultimately under the influence of major merchants.

Producers face a market that has many imperfections. The possibility of free entry or even the physical existence of a multitude of traders does not ensure competition, because access to operating funds is limited and effective oligopsonies can be formed by collusive practices. The internal demand created by rural customers or brewers and restaurateurs may have the salutary effect of exerting competitive pressure, but the impact is often too small and results only in price heterogeneity.

There is evidence that major city merchants build large grain stocks and can exert pressure on rainy season consumer prices as well. Minor traders and retailers are dependent on these stocks at least during part of the year. There is also a chain of credit that ties both consumers and retailer middlemen to major merchants. High consumer prices in consumption centers do not benefit the majority of producers because farmers take little part in the interseasonal storage of marketed grain. We can infer that the marketing system is able to bear the high costs of so many intermediaries of various sorts only because of the high aggregate margins achieved with the double exertion of oligopsonistic and oligopolistic pressures made possible by the concentration of financial power.

The effects of the marketing activity of the government are difficult to evaluate and more complex than usually assumed. As far as producers are concerned, when OFNACER starts to buy early in the harvest period it can raise grain prices in some surplus regions where the starting market price is below the official price. Often this effect is minimal because the purchase campaigns are interrupted for lack of funds. Its effect on private traders is ambiguous. OFNACER may collaborate with small intermediaries who bag the small quantities that they acquire in local markets and thus provide them employment. But small traders in Ouagadougou who have a precarious position in the trade are embittered about OFNACER buying campaigns in the central and eastern parts of the country because they see them as instrumental in their losing a share in the market. In the cities, OFNACER and other international organizations buy large quantities of grain by making contracts with major national merchants who collect this grain in the open market. These contracts may have the effect of increasing urban demand and maintaining high city prices. In contrast, by distributing a considerable amount of grain at

official prices, the government may well have a constraining effect on urban consumer prices, but it is very far from achieving conformity to these official prices in the rainy season.

Grain disposal patterns are different among different types of farmers. Wealthy and predominantly market oriented farmers make production and sale decisions largely on the basis of prices. But there are also considerations such as the necessity to pay for both production expenses and social celebrations, and because of the low use of financial institutions, even such farmers may sell part of their crops in the post-harvest period at depressed prices. This may result in a bimodal selling pattern. There is also the important fact that production is not completely centralized in the hands of heads of households, and the part of the produce controlled by dependent members is likely to find its way to the market very early in the post-harvest season.

The more familiar type of self-sustaining farmers make production decisions with an overriding concern for a safe level of household consumption and under the greater constraint of technical considerations. There is evidence of long-term storage on the farm, but because of the primary concern with safety, the level of stock varies from year to year following the conditions of production and not that of prices. This means that most farmers often cannot take advantage of inter-annual price fluctuations, because high prices are due to adverse climatic conditions when they are likely to sell less than in other years. Most farmers cannot take avantage of intra-annual price fluctuations either, because they sell the largest portion of marketable grain in the post-harvest period. This is not solely due to crisis situations as implied by the use of the term "distress sales". While such cases are evidently common, a more fundamental reason lies in the fact that farmers are drawn into the money economy without possessing sufficient capital to be able to operate within it freely. A host of personal, social and economic reasons (including, most importantly, productive expenditure on the farm which in some parts of the country is higher than usually assumed) conspire to create a large cash need at the end of the long and lean farming season. The little available capital is

concentrated in the hands of merchants while most farmers possess too meager monetary resources to be able to successfully manipulate the possibilities of the cash economy to their own advantage.

NOTES

[1]The information presented here is the result of three separate research opportunities. Between June 1983 and August 1984 I conducted field work and a survey on farming and cash expenditures in the village of Baré, covering less formally also the larger Bobo-Dioulasso area. This research was supported by the National Science Foundation, the Wenner-Gren Foundation and the University of Illinois Research Board. Following that, between December 10, 1984 and January 10, 1985 I conducted a set of 35 interviews with merchants, large farmers and administrators in Bobo-Dioulasso, Ouagadougou and the provinces of Kossi and Kédougou, working as a consultant for the University of Michigan and University of Wisconsin Cereals Marketing project funded by USAID. Much of the case material given in this paper derives from these episodes, and from discussions I had with other researchers in the latter project, most notably Chantal Dejou. Also part of the prices given in Tables 1 and 2 was collected under the supervision of Ellen Szarleta of the University of Wisconsin. Finally, between May 1978 and August 1979 I conducted a survey in the village of Bentenga and in Manga, in southern Mossi country, as a member of the team of Purdue University West African Projects. The number of people to whom I am indebted in this long involvement is too large to attempt a listing, therefore I will limit myself to recognizing anonymously the Burkinabè farmers and merchants who patiently allowed me to pursue my inquiries in a nonreciprocal relationship.

[2]The six were: C.F.A.O., S.C.O.A., Peyrissac and Co., C.I.C.A., C.A.M.I.C.O. (a subsidiary of C.A.C.O.M.A.F.), and the French Niger Company (a subsidiary of UNILEVER).

[3]For an account of an early incident of such trade during World War I see Bâ (1973), Chapter 5, pp. 68-76.

[4]The regulation introduced pay by the hour, minimum wages, social security, all supported and monitored by active labor unions, and resulting in a smaller gap between colonial and metropolitan wages.

[5]Colonial administrators parcelled out large zones which today are the business districts of Ouagadougou and Bobo-Dioulasso by tracing wide streets and sometimes removing the previous inhabitants by force. Some farming areas in the vicinity of cities were closed for other reasons. For example, the Dinderesso area, where the farms of the people of Tounouma in Bobo-Dioulaso were situated, was declared a protected forest.

[6]The mobility made possible by these propitious conditions of trade and accumulation is so remarkable that some individuals who started in the late 1950s with one small vehicle now own a fleet of semi-trucks.

[7]In order to give a wife the merchant finds a young woman from among his relatives and acquaintances who have a social debt to him or who want to establish a relationship. This is a well-known practice among the Mossi. The receiver of a woman can give her to another one, and thus establish a new subordination usually paid back in the same way

years later. This practice may allow him to manage a pool of wives to be redistributed. Here the person of authority is playing both roles, a superiority that derives from his position in the transaction but from his prior position in the society. Women circulate between three parties and establish two dyadic relationships, the same person acting as patron in both of them. This mechanism was commonly used by chiefs to increase their following (see Skinner, 1960), but some Mossi villagers wouldn't hesitate to "give a woman" (a daughter) to any person of wealth and authority with whom he can establish a link.

[8]This prohibition concerns cereals only. There were three resident buyers who were acquiring large quantities of shea nuts on behalf of city merchants, in addition to what was sold in the marketplace.

[9]The tendency for transactions involving the largest volumes to bypass marketplaces--which nevertheless remain important as a source for consumer goods and which assume other social functions--has been observed in the well-known description of the Gouro by Meillasoux (1964). For functions of markets among the Mossi see Skinner (1962).

[10]This difference would only be partly revealed in a comparison of the prices of a tine or a sack because their weight varies differently in villages and cities. In village markets when prices are at their lowest, traders buy with very large "hats", and as prices go up the size of the "hat" is reduced. In contrast in urban markets grain is always measured with small or fat tops (see Section 13).

[11]He said, however, that in 1984 he did not buy any because the rice harvest was very poor.

[12]Most of the other grain merchants sell rice supplied by importers. Retailing imported rice is not a very profitable proposition unless the trader can buy very large quantities at once and receive a quantity discount. Traders who own little capital are thus almost excluded from the retailing of rice.

[13]Those are the most common activities conducted by women in Ouagadougou (Pallier, 1970:136).

[14]One factor that might have relevance here is the rent of such a place. In Saint-Etienne the market fee for an open stall can be as high as 2,000 FCFA per month for the most important of women traders, but is less for the great majority. The rent for a store of one room in the same market is 2,500 FCFA per month.

[15]If we assume a yearly urban millet-sorghum-maize consumption of 119kg per head (Wilcock, 1977:80), part of which is supplied by OFNACER, other government stores, and urban part-time self-consuming farmers, the total consumer demand from the private market in the city of Bobo-Dioulasso is probably not more than 12,000 tons. The information collected from merchants suggests that a handful of merchants can store several thousand tons, a huge quantity in comparison. Of course a large

part of the grain stored in Bobo-Dioulasso is supplied to other consumption centers; but it would be going too far to claim that in Burkina Faso there is no evidence for the existence of large stocks constituted for speculative purposes and large enough to exert pressure on consumer prices.

[16]For an excellent description and evaluation of the history, primary objectives and operation of the ORDs see Gregory (1974:37-74).

[17]Village Groups (Groupements villagecis) are the voluntarily constituted village level development units started by the rural development organizations (ORD). The members can benefit from services such as credit, supply of modern equipment and fertilizers etc., provide the link between the ORD and the village community, and also engage in joint production and marketing ventures.

[18]The information on funds received by Village Groups was kindly provided by Sye Palm, sector head of the ORD of N'Dorola.

[19]I did not inquire into the possibility of Village Groups' buying grain and selling it to merchants at higher than official prices and thus using the funds provided by the ORD to make gains by bulking and short-term storage.

[20]The following day the price for a sack of white sorghum was quoted as 9,000 FCFA in the market of Saint-Etienne but my assistant believed that, if one were willing to pay cash, a better price could be found in the city.

[21]Transporters charge 750 FCFA per sack of white sorghum from N'Dorola to Bobo-Dioulasso and, as usual, to have the sack carried to the truck in N'Dorola and from the truck to the warehouse in Bobo-Dioulasso costs 50 FCFA each way. There is also a 50 FCFA storage fee if the agent bulks the bags in someone else's place.

[22]In Manga brewers who buy red sorghum malt at higher prices, but usually on credit, have exerted social pressure on traders who constitute an oligopsony to agree to enter the market only at 1 or 2 o'clock in the afternoon (Sherman, 1984:115).

[23]Only rice and potatoes are retailed by the kilogram in the cities, all other grain transaction taking place with volume measures.

[24]There seem also to exist systematic differences in the <u>average</u> size of the measures used in different regions. In Bentenga, the average weight of the contents of a farmer's tine full of sorghum was 19.4 kg and Ouédraogo (1983) reports 19 kg in the eastern ORD, while in Baré the official tine which holds slightly more than 16 kg was popular.

[25]In the different environment of a North African bazaar, Geertz (1978:30) traces it to the need to divide the disconcerting plurality of individuals and options into manageable units, with a practical consequence of limiting the cost of the search.

[26]A curious thing with respect to price variations is that export crops such as shea nuts and sesame also follow the high and low cycle of cereals. The movement is less pronounced but still noticeable even in the case of sesame which may go from 13,500 FCFA/sack to 15,000 FCFA/sack early in the rainy season. Export crops should be facing an unchanging (or irregularly changing) international price. The cycle may be explained either by the existence of different profit margins in different seasons for exporting merchants (which would be again an indication of noncompetitive structures) or by the pattern of bulking necessary to achieve direct sales to the world market.

[27]Khatkhate (1962) argued that the response to price changes depends on whether the rural economy is dominated by large or small landholders. He maintained--against the idea that the disposal of farm surpluses from developed countries has a deleterious effect on the farming of recipient countries by depressing prices (an argument introduced by Schultz)--that marketed surplus in the subsistence sector, unlike the produce of big landlords, becomes smaller in response to rising prices because of a relatively constant need for cash among small farmers. Thus he produced a sociological context for the now well-known Chayanovian idea.

[28]But there has been one contradictory claim on northern Nigeria: Hays (1977).

[29]Cotton is almost solely purchased by SOFITEX, a joint venture of the government and the French CFDT, by using the personnel of the ORD.

[30]There may be other reasons for growing cotton: (i) of a technical order such as putting to use an old field and continuing later to grow cereals on it by taking advantage of the residual effect of heavy fertilization; (ii) of a social order: Capron maintains that among the Bwa with the development of cotton, wives' labor is much more intensively used to the benefit of the husband, because harvesting which is relatively light in cereals is the heaviest task in cotton, and traditionally it happens to be the women's obligation (personal communication).

[31]There might also be different customs, or some market oriented farmers may be trying to find new arrangements. A large Senoufo farmer in Dingasso stated that he never gives grain to his wives and other dependents, that he waits until he is paid for his cotton to give them money instead.

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THE DYNAMICS OF GRAIN MARKETING IN BURKINA FASO

VOLUME IV

RESEARCH REPORT 6

GRAIN MARKETS IN THE VOLTA NOIRE REGION OF BURKINA FASO

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Burkina Faso Grain Marketing Development Research Project

Prepared by
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and
International Agricultural Programs, University of Wisconsin
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FOREWORD

This research is part of an eighteen-month study of the grain marketing system in Burkina Faso conducted by the Center for Research on Economic Development, University of Michigan, and the International Agricultural Programs office at the University of Wisconsin for the United States Agency for International Development (Contract no. AFR-0243-C-00-2063-00). Its purpose has been to analyze the grain marketing system at the producer level in order to determine where the constraints to its efficiency, if any exist, lie.

I am indebted to many individuals who have assisted me both in the research and in the preparation of this report, as well as to those who offered me the encouragement and support necessary to complete this project. As such my list of acknowledgements may be somewhat lengthy.

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INTRODUCTION

GRAIN MARKETS IN THE VOLTA NOIRE REGION OF BURKINA FASO[1]

Burkina Faso has a greater potential for self-sufficiency in grain production than do most other Sahelian countries. However that potential lies mainly in the less populated surplus areas of the south. To date, the country has relied on the marketing system in these areas to insure national self-sufficiency.

In the Club du Sahel study on grain marketing in the Sahel, Elliot Berg concludes that Burkina Faso[1] has a better potential for self-sufficiency than many other Sahelian countries. (CILSS, 1977, II p. 5). Burkina Faso is "ecologically favored" with more than half the country being in a Sudanese rather than a Sahelian ecological zone. As a result, its grain production generally comes close to self-sufficiency, as the average production shortfall has been less than 5 percent.[2]

In addition, it is one of the least urbanized countries in the Sahel. Almost 90 percent of the population still resides in the rural areas (Jeune Afrique, 1975, pp. 24-26). The low level of urbanization is due in part to the large amount of seasonal labor migration from Burkina Faso to the Ivory Coast. During the dry season, Burkinabè find employment in the plantation fields and in the light industries of Abidjan and Bouaké, and return to Burkina Faso for the next planting season. This tends to reduce the pressure on the urban areas in Burkina Faso, while maintaining a constant level of grain production. Burkina Faso has been able to limit its grain imports to an average of 20,000 to 30,000 tons per annum, less than 3 percent of production during the 1970's (CILSS, 1977, II p. 5). However, while the overall outlook for production may be optimistic, there are still severe differences in the level of production within Burkina Faso itself. Between the Sudanese regions of the Hauts-Bassins, as well as the Volta Noire, and the dry overpopulated regions of the Mossi plateau there are great disparities

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[1]On August 4, 1984, the name of the country was changed from Upper Volta to Burkina Faso.

[2]This is a mid-1970's estimate prepared for the CILSS (1977) report.

in both the level of production and productivity. The northern Sahelian areas suffer from chronic deficits, and the drought conditions of the past few years have exacerbated this condition. In contrast, the surplus of the southern regions has allowed for an accumulation of on-farm grain storage, even in the less productive areas of these regions.

Thus, the grain marketing system in Burkina Faso must move the grain from the surplus to the deficit areas. The present system is criticized for moving insufficient quantities at an exorbinant cost, causing prices in the deficit areas to soar during the off season. Between the markets of Bobo-Dioulasso in the south and Dori in the north, the average dry season price difference for a 100 kilogram sack of grain is reported to exceed 100 percent.[3] The dilemma this raises to policy makers is whether the private grain marketing system is efficient enough to move the country's grain surplus, and if it is not, what are the available alternatives to the public sector to do so. The underlying theory is that if the marketing system is inefficient, producers will not market their crop for fear of not receiving its fair value. In other words, inefficient markets tend to distort the prices paid to producers. Higher consumer prices are absorbed by the marketing system, while reductions in these prices are passed on to the producer. This reduces the incentives for the producer to participate in the marketing system and reduces the overall quantity of grain available in the marketing system.

This study focuses on the efficiency of the grain marketing system in the Volta Noire, a surplus region of Burkina Faso. Its purpose is to analyze the relationship between producers and the marketing system in order to determine whether the producers are receiving the benefits from the grain they sell.

The study is organized as follows. Chapter One is a review of the relevant theories of marketing reseach, in particular for developing countries. Chapters Two and Three are descriptive chapters. Chapter Two describes the Volta Noire; its population, ecology and production. Chapter Three gives a general description of the marketing system in the region, and it identifies its major intermediaries and trading patterns.

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[3]As report by ORD director in Dédougou.

Chapter Four reviews the producer survey, and presents general producer trading patterns. In Chapter Five the structure and conduct of the grain marketing system and its participants are analyzed according to the theories presented below. Chapter Six analyzes the performance of the marketing system, and Chapter Seven presents the study's major conclusions and recommendations.

CHAPTER ONE

STAPLE FOOD CROP MARKETING IN REVIEW

INTRODUCTION

Staple food crop marketing can play an important role in the development of rural Sub-Saharan Africa. In Burkina Faso, the market for staple grains is seen as a vital resource in the development of the rural sector, as well as to the country as a whole. When operating efficiently, the grain markets can be a major source of income to producers, and a primary source of low cost food to urban consumers. However, when the marketing system becomes inefficient at moving grain from the producer to the consumer, its effects are likely to be reversed, causing a decline in the country's growth process. Therefore, the purpose of this study is to evaluate the efficiency of the rural grain marketing system in the Volta Noire region of Burkina Faso, a surplus region, in order to determine whether it effectively contributes to the development of Burkina Faso and, in particular, to the producers of the region itself. The research approach is based on the Structure, Conduct, Performance (SCP) paradigm with the addition of several modifications to accommodate the sub-sector and development aspects of this study. The following chapter is a review of the SCP literature and the theories behind these modifications.

1.1 THE IMPORTANCE OF AGRICULTURE MARKETS TO DEVELOPMENT

The efficiency of the rural marketing system is critical to the success of those agricultural programs designed to promote rural development in Sub-Saharan African countries. As part of an overall plan to improve the economic as well as the social conditions in the rural areas, governments in the developing world must insure the efficiency of the rural marketing system. This is a generally accepted belief in the rural development literature and is reflected in the spirit of the World Bank's report on Sub-Saharan development which emphasizes farmer production incentives (World Bank, 1981, p. 55). The report cites the results of 27 Bank-sponsored projects to raise the productivity of agricultural output, in which projects implemented under favorable

pricing policies were overwhelmingly successful. Unfortunately the World Bank's narrow focus on higher producer prices falls short of policies needed to stimulate rural development. These policies must include a commitment to the maintenance or improvement of rural marketing systems in order to encourage the participation of a larger number of rural producers. In so doing, higher producer prices and improved productivity will result along with increased growth.

The agricultural marketing system in Sub-Saharan countries, particularly in the Sahel, has two primary components, export or cash crop markets and staple food crop markets. Exports or cash crops include cotton, ground nuts, shea nuts and sesame; and staple food crops in these countries are food grains, typically sorghum and millet. In the Sahelian countries the market for export and cash crops is generally organized by parastatal marketing boards, with relatively little intermediation by private traders. In contrast, staple food crops are marketed mainly in the private sector, with limited government intervention. Of the two, staple food grain marketing is considered the most critical to the development of the Sahelian countries, particularly in the rural sectors. The largest marketing system in the rural areas is for staple food grains. In addition, staple food grain sales provide a major portion of most farmers' incomes. The 1977 CILSS (Club du Sahel) report on grain marketing in the Sahel, estimates that between 10 and 20 percent of the food grain production in the Sahel is marketed. This represents a higher value than for any other crop. The report adds that in the rural areas, food grain marketing can account for between 40 and 80 dollars of the average farm income, which is a sizable portion of producer cash needs (CILSS, 1977, I, p. 37). Therefore, on a relative scale, a greater proportion of rural households are involved in grain marketing. As such, inefficiencies in the marketing system for these crops can adversely affect many households and the development prospects for the country.

The need for efficient staple food crop markets is expressed by many in the development literature. C. Peter Timmer sees a well-functioning market system contributing to economic growth, equity of distribution and "nutritional well-being", by effectively communicating "signals of scarcity and abundance to decision makers" (Timmer, Falcon, and Pearson, 1983, p. 151). John Antle finds efficient marketing systems facilitating

agricultural development and productivity growth by "reducing costs and increasing the availability of marketing services" (Antle, 1983, p. 2). Norris Pritchard, who believes in the interdependence of economic sectors in development, sees increased volume of agricultural output, through more efficient marketing systems, benefiting other sectors in the economy with improved resource allocation (Pritchard, 1969, p. 82). Finally, W. Penn Handwerker, in a study on crop marketing efficiency in Liberia, correlates a rising rural standard of living with regular increases in the volume of food moving into the marketing channels (Handwerker, 1980, p. 1).

While its importance to the society as a whole is understood, staple food crop marketing may have importance to individual sectors in the economy as well. Timmer and Pritchard both see efficient marketing systems bringing greater benefits to producers by improving resource allocation and increasing their integration into the economy as a whole. Efficient markets would send correct price signals to producers and allow them to adjust their resource use accordingly. Moreover, with improved resource productivity, farmers could produce more for off-farm sales. (Pritchard, p. 84. Timmer et al, p. 155). But Keith Hart, does not see improved productivity of resources in the rural, agricultural sector. Rather, he believes that improved marketing efficiency will only lead to a greater use of resources with the same productivity (Hart, 1982, p. 35). Critics have censured Hart for his Malthusian type analysis, claiming that there is ample evidence demonstrating that efficient marketing systems can improve farm productivity and benefit agricultural growth and economic development (Ibid, p. 218).

As some see important gains to the rural areas from efficient marketing systems, others find equal if not greater gains to urban sectors of the economy. Norris Pritchard sees agricultural marketing as the key to the growth process. He believes, that industry and commerce as well as the urban population depend on agriculture as a primary stimulus of development. Pritchard concludes, without an effective marketing system to deliver the needed agricultural goods, the entire urban economy would shut down (Pritchard, p. 83). William Jones concurs with Pritchard and adds "with rapidly growing urban populations, internal marketing of food grains is the central problem that can affect economic

development" (Jones, 1972, p. 127). While Pritchard and Jones are concerned with stimulating growth, Keith Hart takes issue with the fundamental concern of hunger. He sees markets in particular, efficient and flexible marketing systems as the most "reliable safeguard against famine", even more important than traditional social institutions existent in West Africa since before modern times (Hart, p. 127). Although Hart's position may be a simplification, if not an exaggeration, of the importance of an efficient marketing system, it is clear that it is a necessary condition for economic growth and development in Sub-Saharan economics.

Few critics of this hypothesis exist. Michael Lipton is one of them. Lipton argues that more marketing may be bad, and it may cause a worsening rather than an improvement in the conditions of the poorest. His argument is based on equity concerns in development. Lipton, sees the poorest actually losing from increased participation in agricultural marketing, even if there is an overall acceleration in growth. Improved marketing systems would cause a decline in the demand for unskilled labor through an improvement in the technology for marketing produce. He cites the example of the introduction of new Post Harvest Technologies (PHT) in Indian and African agriculture in which all technological innovations involved reduced labor intensity, and the need for the unskilled labor of the poor. Moreover, there was no improvement in the agricultural economic position of the poor. These new PHT's "did not increase food availability or timeliness for consumers", or raise producer prices through reduced losses. Thus, the adaptation of the new PHT's "reduced the income of the poor relative to the non-poor" (Lipton, 1983, p. 17). In addition, according to Lipton, the poorest generally earn very little from agricultural marketing. They "depend most heavily on selling labor and buying marketed food". Thus, he concludes that improved marketing systems would tend to raise prices of food to the poor, especially in the producer areas, causing the prices of food they consume to rise more relative to that of the non-poor (Ibid., p. 17).

Lipton concludes that "systems designed to reduce the inefficiency of rural-urban food extraction cannot be expected to reduce inequity". These policies are biased against self consumption and local trade, causing the poor to sell more of their output at low, extraction oriented

prices. He recommends both the adoption of output raising policies, so that producers can eat more of their food crop, and investment in "research, technology and institutions of production", so as to raise farmers productivity and allow farmers increased income from what they sell (Ibid., pp. 20-22).

Few would disagree with Lipton's stress on the importance of improved output and productivity policies. However, Lipton's argument fails to recognize the need for integrated marketing outlets to prevent supply bottlenecks in the producing areas. In addition, inequity in agricultural marketing results from uncertainty caused by lack of information and inaccessibility. More efficient, integrated marketing systems would stabilize price fluctuations and seasonal swings through increased access and market information, and reducing uncertainty and risk. In turn, this would allow even the poorest farmers to participate in the marketing systems and make important income gains. In addition, poorer farmers tend to grow more staple food crops than cash crops. As such, improved marketing systems for staple food crops would have a greater benefit to them. Nevertheless, Lipton's apprehensions are somewhat valid, and policymakers should take note of the equity concerns in formulating agricultural marketing policies. This is especially true with regard to back flows of staple food crops to producer areas.

1.2 STRUCTURE, CONDUCT, PERFORMANCE ANALYSIS: LITERATURE REVEIW

While it is possible to demonstrate the need for efficient marketing systems for staple food crops, it is much more difficult to discern the required conditions for efficiency. The basic questions are what is an efficient marketing system and how can government policy be used to create one? In the past, agricultural economists have used structure, conduct, and performance (SCP) analysis to determine the efficiency of a marketing system. The SCP framework calls for a conclusion that efficient marketing systems are perfectly competitive and thus provide for an efficient utilization of resources. On the other hand, inefficient marketing systems are suffering from structural imperfections that impede competitive conduct.

Richard Caves outlines the major elements of SCP analysis in a study of American industry (Caves, 1972). Caves claims market structure consists of those elements that determine the institutional characteristics of the industry. (See Figure 1.1.) It includes, buyer/seller concentration, product differentiation, barriers to entry of new firms, growth rates of market demand, and price elasticity of market demand. Caves' structure analysis highlights market concentration, product differentiation and barriers to entry. According to Caves, concentrated industries will produce less (or for tablemarketing firms, buy less) than would competitive industries, and thus, cause an inefficient allocation of resources. Product differentiation, too, reduces the competitiveness of the industry by reducing the potential for substitution among several firms' products. Finally, barriers to entry are also non-competitive devices, as they protect a firm's market control through either internally or externally created factors (Ibid., p. 17). In structure analysis, all of these elements are interrelated, causing one to exacerbate the other. For example, product differentiation creates barriers to entry and in turn may heighten market concentration (Ibid., pp. 30-34).

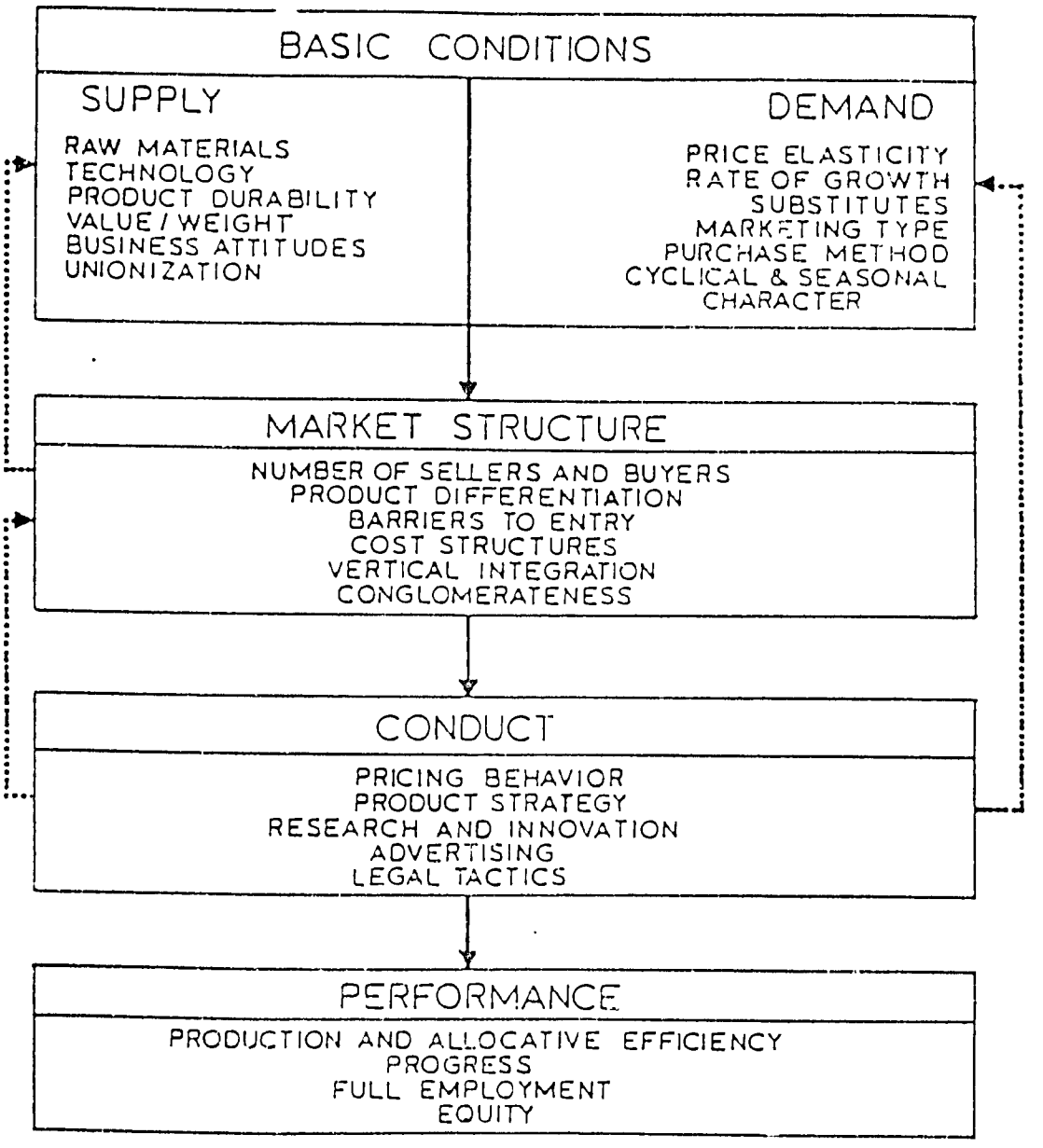
Market conduct analysis according to Caves, concerns the firm's policies with regard to setting the price and quality of the product, in addition to those policies aimed at coercing rivals.

Robert Clodius and Willard Meuller elaborate on Caves' elements of market conduct (Clodius and Meuller, 1967, pp. 515-533). According to Clodius and Meuller, price setting policies of market conduct are the methods employed by firms to determine the price output ratio. Product quality policies are even broader; they include production policy and sales promotion tactics. Finally those policies aimed at coercing rivals are those that promote coordination among competing firms and the use of exclusionary tactics.

It appears that these categories are also somewhat interrelated. Sales promotion tactics are bound to influence price setting policies and exclusionary tactics, as would coordination policies. Thus, it seems that the first problem for the researcher is defining the parameters of the analysis (Ibid., p. 525). In general, we believe that market

Figure 1.1

THE STRUCTURE-CONDUCT-PERFORMANCE PARADIGM



SOURCE: Scherer, F. M. Industrial Market Structure and Economic Performance, 1970, p. 5.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

structure influences market conduct; perfectly competitive industries prevent individual firms from exercising market power that would harm their competitors. However, when imperfections do exist in the structure, some firms may be in a position to exploit the weaknesses of others and thereby modify the structure of the industry.

Market performance analysis is a measure of whether the industry is in fact competitive and if firms operate efficiently in such an industry. It is the means to evaluate structure and conduct analysis, but is valid only in the context of these analyses. The aspects of market performance analysis are somewhat different from those of structure and conduct analysis. While the latter two are more qualitative and judgmental, performance analysis utilizes quantitative, economic efficiency tests. One aspect of market performance analysis is a comparison of firms' marketing margins and marketing costs. Structural imperfections in the marketing system can lead to bloated marketing margins and excess profits accruing to the firm. Another important aspect of market performance, especially in agricultural markets, is market integration. In this aspect, if markets are integrated both temporally and spatially, meaning that price differences over time and space are equal to the associated storage and transportation costs, then we can assume that resources are being allocated efficiently by the marketplace. In summary, because of its ability to measure the competitiveness of the marketplace for the industry, the SCP analysis is considered most useful in evaluating the efficiency of the firm and of the overall industry. Nevertheless, for the results to be meaningful there must be a parallel analysis with all three elements.

1.3 SUBSECTOR APPROACH

In applying SCP analysis to product markets certain difficulties arise. These difficulties stem from the multiplicity of industries present in the marketing system for a given product. In moving a product from producers to consumers there may be wholesaling, retailing, transporting, processing, and handling industries involved. Traditional SCP analysis focuses only on a few if any of the levels of interaction of these industries separating the producer and the consumer. This

shortcoming fails to bring out the great interdependence among agriculture production, processing, and distribution industries, as the focus of the analysis is too narrow.

To extend the traditional SCP format to include product marketing systems, Bruce Marion suggests the sub-sector approach (Marion, 1976). (See Figure 1.2.) This technique applies the SCP analysis to the entire product marketing sub-sector of the economy. It is both a vertical and horizontal study of the marketing system. The horizontal aspect of the study applies traditional SCP analysis to the various industries operating in the sub-sector. In addition, the vertical aspect is a study of the relationship between industries in the marketing system. As a result, the analysis concentrates on the efficiency of both the sub-sector and the various industries in the sub-sector.

1.4 APPLICATION TO DEVELOPING COUNTRIES

While the SCP framework can be useful in determining marketing efficiency in developed countries, it may not be in the developing ones. The very same reasons that call for SCP analysis of agricultural markets in developing countries may be the reason for inapplicability as well. SCP analysis has been introduced in developing countries to evaluate the efficiency of the rural, agricultural marketing system, in order to improve its efficiency and promote development. But critics of this application believe that the SCP framework is too limited in focus, and cannot see the growth and development aspects of marketing efficiency. H.M. Riley and M.T. Weber conclude that the SCP paridigm is not concerned with the dynamic impact marketing services can have on "production and consumption (1983, p. 319)."[1] It is static research that focuses on "whether price and cost relationships over space and time behave as predicted by the perfectly competitive model." In other words, the SCP framework is not useful in seeing the dynamic results marketing services will have on the rural producer and urban consumer, and thus, cannot reflect developmental impacts.

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[1]Similar criticism also appears in Schaffer, 1968.

Figure 1.2

SUBSECTOR STRUCTURE, CONDUCT, PERFORMANCE PARADIGM

Basic Conditions

- Production trends; geog. distribution
- Consumption characteristics
  - growth or decline
  - price, income & cross E of D
- Time char. of production & mkt. cycles
- Type & degree of uncertainties
  - Commodity price patterns
  - Random shocks affecting S & D
- Trade; world markets
- Laws & gov't. policies

Firm Decision Environment

- Alternatives
- Incentives
- Control & influence

Structure

Industry Structure

- Nr. & size of buyers & sellers
- Entry & exit conditions
- Product characteristics
  - perishability
  - quality requirements
  - differentiation
- Technol. char./cost functions
  - Capital intensity; minimum efficient firm size
  - Rate of change
- Capacity
- Specialization/diversification
- Vertical integration
- Financing & credit characterist.
- Collective organizations
  - Cooperatives
  - Trade assoc.
- Business objectives, attitudes and capabilities
- Frequency of purchases and sales

Subsector Organization

- Functional structure
  - Location, timing and clustering of functions
- Nr. of stages
- Nr. of parallel channels
- Information system
  - type of information (grades, mkt. conditions, etc.)
  - distribution
  - cost
- Structure of authority, rights & control
  - Decision anatomy
- Exchange institutions (auctions, buying stations, etc.)
- Types of exchange (spot, contracts, tying agreements, etc.)
- Risk sharing institutions & arrangements
- Inter-stage differences (location, size of enterprise, seasonality, prod. char.)
  - Nature of assembly, sorting and synchronizing tasks

Conduct

Industry

- Product strategy
- Pricing behavior
- Advertising
- Research & innovation
- Mergers & divestitures
- Risk mgt. practices

Subsector

- Efforts to shift control
  - Type of exchange used
- Coordination activities
  - Prediction of future S, D, and price
  - Information communicated
  - Quality specification
  - Scheduling and timing synchronization
  - Efforts to influence inter-stage cooperation/conflict
- Process of determining terms of exchange (private treaty, administered, bid-offer-acceptance, etc.)
- Response to change forces

Performance

Industry

- Technical & operation efficiency
- Pricing efficiency (profit & output levels)
- Product characteristics
  - quality/wholesomeness
  - variety
- Progressiveness (process & product)
- Selling activities
  - Expense
  - Influence on consumption pattern & social values
- Market access and/or foreclosure

Subsector

- Allocative accuracy
  - Extent to which S offerings match D preferences for quantity, quality, timing, & location
- Stability of output, prices & profits
- Technical & operational efficiency
  - at each stage and in linking stages (transaction costs)
- Equity redistribution
  - Returns vs. investments and risks
  - Rights and control vs. investments and risk
- Accuracy, adequacy & equity of information distributed
- Subsector adaptability
- Level & type of employment
- Waste & spoilage
  - Product waste
  - Resource conservation
  - Capacity utilization

SOURCE: Marion, B.W. 1976 Application of the Structure, Conduct, Performance Paradigm to Subsector Analysis. Working Paper 7, Studies of the Organization and Control of the U.S. Food System.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

Another criticism of the SCP framework centers on the methodology employed by researchers in its evaluation. Researchers have a tendency to use macro-level and secondary sources in testing the SCP model. This tendency, Riley and Weber point out, does not permit "focusing on the micro-level behavior" of producers and consumers (Ibid., p. 322). Barbara Harriss, in her critiques of the SCP framework, furthers the criticism leveled by Riley and Weber. She finds that in the application of SCP analysis to staple food crop marketing in developing countries, the analysis mistakingly centered on correlation coefficients and margin analysis to demonstrate both market integration and efficiency. According to Harriss, neither of these two methodologies are able to prove that a relationship between market integration and competitiveness exists or that excessive margins create inefficiencies in the marketing system. This is because, from the interpretations of the data based on these two methodologies, one cannot logically conclude whether markets are efficient or not, without resorting to value judgements regarding the acceptability of deviations from the hypothesized norm (Harriss, 1979, p. 213).

In contrast, Eldon Smith finds the SCP framework applicable in developing markets, but only if "relevant, developmentally related performance characteristics are defined and applied rigorously" (E. Smith, 1972, p. 666). In other words, the SCP framework can be used to analyze staple product marketing systems in developing countries, but the researcher must apply specific performance criteria for developing countries. These should include criteria to test the progressiveness of the marketing system in adopting new technologies, as well as managerial and organizational innovations in both production and marketing. Smith sees the market for staple food crops playing an important role in the flow of inputs back to the farmers, therefore, this role must be evaluated under performance analysis as well (Ibid., p. 670).

In contrast, Norris Pritchard believes that the reason why SCP analysis in developing countries has not yielded satisfactory results is because the structural problems of the staple crop marketing systems are not well known. Pritchard suggests we broaden the structural analysis "in order to improve the odds of correctly identifying urgent and emerging structure and performance problems and of determining causal

relationships" (Pritchard, p. 80). Pritchard believes that structural analysis is fully compatible with the theories of economic growth, and the that two can be easily combined to develop an agricultural program for staple crops with an emphasis on growth and performance.

Some theories that supplement the SCP framework are presented in the works of Jones (1976, pp. 314-322) and Plattner (1984). W.O. Jones finds that the structure of tropical markets makes it difficult to apply market integration (price correlation) analysis and obtain satisfying results. According to him, price correlation analysis is based on the theory of central-place analysis.[2] This theory suggests that central markets will draw their supplies from lesser centers and/or production centers in their own hinterland.

Thus, crops will move in a redistributive fashion through a hierarchy of markets in a region. But in the tropical markets for staple food crops, Jones finds that there is a two-level marketing system in which supplies flow directly to the center from either its own hinterlands or from the hinterlands of other regions (see Figure 1.3). The supplies may not pass through other central markets first, as they would in a redistributive system. Due to the periodic nature of tropical markets and the limited number of markets by traders in the two-level system, no hierarchy of markets exists. As a result, price information does not necessarily move directly through the marketing system. The system often delays price relays, causing prices to adjust rather slowly to changes in other markets, which can be misinterpreted using price correlation analysis. To correct for the two-level system, the researcher would have to know the structure of the marketing system and in particular the causal flows between markets in order to obtain meaningful results from price correlation analysis.

Jones' findings clearly substantiate the need for additional structural parameters in analyzing staple food crop markets in developing countries. In this case price performance analysis is different because the structure of the system is "two level" not "redistributive." Likewise, different social institutions embedded in the structure of the

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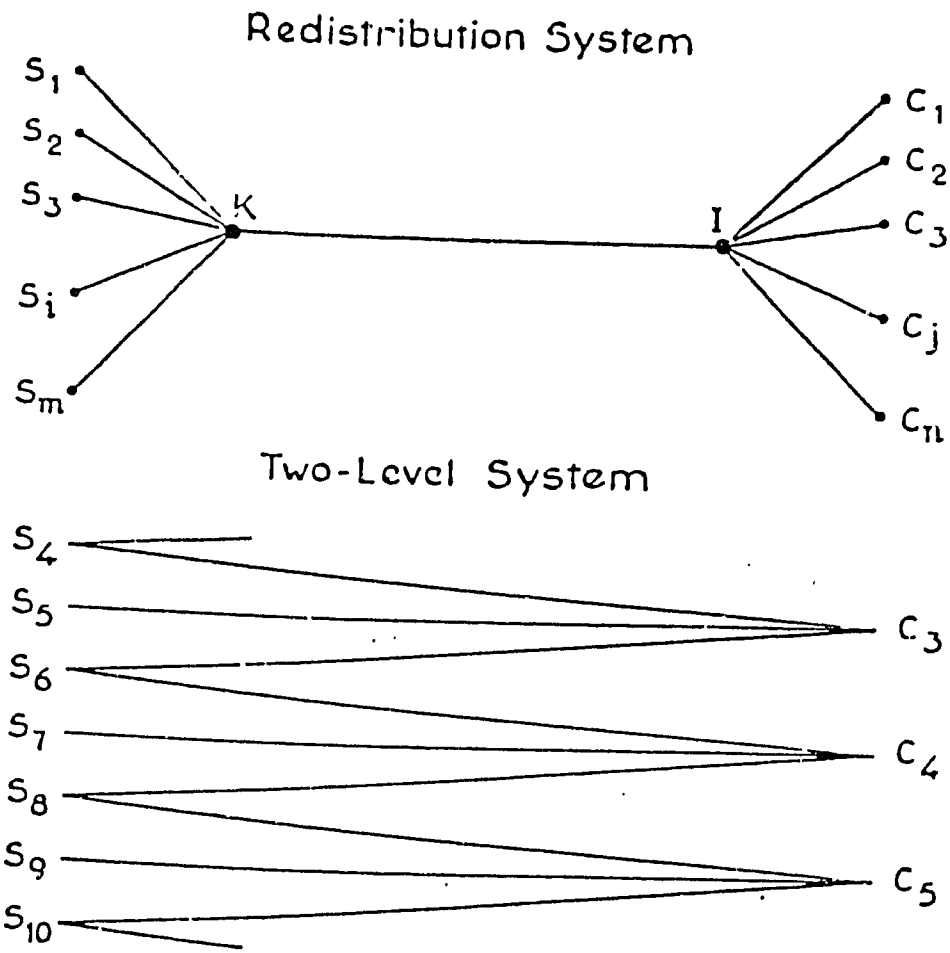
[2]For a discussion of the economic dimensions of central-place theory, as is applies to markets in developing countries, see C. Smith (1976, pp. 3-58).

Figure 1.3



S = supplying centers
C = consuming centers

Source: William O. Jones (1968), "The Structure of Staple Food Marketing in Nigeria as Revealed by Price Analysis," *Food Research Institute Studies*, Vol. VIII, No. 2, p. 118.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

tropical staple food crop marketing system will cause different market performance results with the traditional SCP paradigm. Stuart Plattner points this out in his analysis on equilibrating market relationships. Plattner suggests that when marketing systems are underdeveloped, market participants will forge long-term, trading relationships regardless of the short-term efficiency consequences. Producers may not seek the best price for their crop, but continue to sell it to a particular trader. In return, they know the trader will always be available to provide emergency relief or credit. Plattner finds evidence of these long-term trading partnerships in many peasant marketplaces. He claims "the goal of each actor is his or her economic self interest, yet the maintenance of the relationship is valued over immediate short-run profit" (Plattner, p. 6). Thus, exchanges do not have to be economically balanced in the short run, due to the value of the long-term relationship. These exchange relationships delay the transfer of price changes, especially consumer price increases, as traders participating in these long-term trading partnerships may not immediately pass down price increases to producers. As a result, the SCP analysis must account for these social factors in order to prevent a misinterpretation of the market performance analysis.

1.5 THEORETICAL BACKGROUND TO MODIFICATIONS IN SCP PARADIGM

While problems exist with the methods to analyze market performance, the principles of performance analysis are generally applicable to research in the developing world. Price correlation analysis may not be an effective determinant of market integration, yet market integration is still a useful means to determine marketing efficiency. This means that to transfer the SCP paradigm to the marketing system for staple food crops in developing countries, new methods to determine market efficiency must be utilized. Moreover, the SCP analysis must incorporate the economic as well as the institutional differences found in these marketing systems. These ideas should be incorporated into the structural aspects of the analysis, as they affect the major characteristics of the market-place. In so doing, the researcher has a greater ability to correctly identify the emerging structural-performance

problems that influence the nature of competition and efficiency in the tropical market as suggested by Pritchard (p. 78).

1.5.1 Performance Analysis

Larry Herman in his study of the livestock and meat marketing system in Burkina Faso suggests three criteria for determining marketing efficiency: lowest cost distribution, responsiveness of system to production and demand conditions, and effective allocation of resources (Herman, 1977, pp. 49-51). Lowest cost distribution implies reducing the marketing cost of all intermediaries in the marketing system or having the most minimum of marketing margins. According to Herman, to achieve a minimum marketing margin, firms are required to be technically efficient and have normal profit margins. Technical efficiency means that operations of intermediaries in the market should "make the best use of available technology consistent with prevailing factor prices." Herman points out that this is most important for studies of marketing systems in developing countries as factor prices in these areas are very different from those of marketing systems in developed countries. Moreover, according to Herman, technical efficiency implies an economic justification for each intermediary in the system, and that firms in the marketing system "operate in the range of scale that yields the lowest marketing cost". In African marketing systems there are a large number of intermediaries whose activities must serve an economic function, and exploit economies of scale. In addition, to achieve the lowest cost distribution firms must have normal profit margins; their long-run profits should be just enough to keep them in business with appropriate rewards for risk. In other words, this long-run profit should equal going rate of return to capital.

Herman's second criterion for marketing efficiency is responsiveness of the marketing system to production and demand conditions. This implies that the marketing system should be flexible enough to accommodate changes in supply and demand. To be efficient the marketing system should not be hindered by institutional or infrastructural factors in adopting new technology or serving new markets. In developing countries this means markets must be able to adjust and expand with

increases in urbanization, trade and general growth. This may reflect a more long-term goal given the difficulty of institutional and infrastructural change in developing countries. Therefore, efficient marketing systems should precipitate these changes over the long run.

Lastly, according to Herman in order for the marketing system to be efficient there must be an effective allocation of resources. This means that the system should direct inputs to their most productive use and outputs to those "most willing and able to pay for them". In addition, any changes in demand should be reflected in the consumer and ultimately in the producer price. For an effective allocation of resources there must be access to information on prices, and supply and demand conditions to both producers and marketing agents. In addition, there must be short-term stability in prices so as to reduce uncertainty to both producers and traders.

Herman also sees the role of the marketing system in advancing social or economic goals as a criterion for marketing efficiency. In developing countries efficient marketing systems must promote some form of economic and social development depending on the country's requirements and outlook. Performance analysis should evaluate whether the marketing system is fulfilling its objective.

To measure market performance on the basis of Herman's efficiency criteria, we begin with an evaluation of trader marketing margins and costs, and a comparison of long-run profits to the going rate of return on capital, in order to determine whether the marketing firm is technically efficient and has normal profits. However, as noted before, the traditional measures of the marketing system's responsiveness to changes in supply and demand are not transferable to studies in developing countries. Therefore, we must use information on supply and demand conditions as an indicator of responsiveness. The underlying assumption is that if producers or market agents are aware of price changes in other markets, then they will respond to these changes with similar adjustments in their prices. Additionally, access to information can also be used as a determinant of effective allocation of resources. This is due to the assumption that resources cannot be allocated efficiently without access to information on varying supply and demand conditions.

While it is suggested that price correlation is somewhat ineffective at determining market integration in developing countries, with different measures it may still provide some useful insight into the relationship between markets. Rather than correlating a series of prices from several markets, this analysis calls for a comparison of seasonal price fluctuations. In different markets, prices can rise faster or slower than the average depending on the demand and the available surplus. For example, in many deficit markets of the Volta Noire, prices rose by 50 percent over the course of the 1983/84 season, and in the surplus markets the price increased from the same period in excess of 100 percent.[3] These differences in price fluctuations may reflect a change in the level of integration over the course of the marketing season, with markets being less integrated after the harvest. A comparison of these price fluctuations, combined with the structural analysis of the marketing system, should lend some insight into the level of market integration and further substantiate the results of the access to information test.

The difficulties in Herman's analysis arise when attempting to find adequate measures for the long-run responsiveness of the marketing system, as well as the marketing system's role in advancing social and economic policy goals. The latter criterion is addressed by other marketing economists' work on development issues, but the former remains a fundamental gap in the performance analysis. There are some efficiency criteria relating to both resource allocation and equity that were not addressed by Herman, but are important to this research.

In developing countries a major objective of a development plan is equitable growth; the poorest of the poor should benefit equally. In the past, SCP analysis has been criticized for paying no or little attention to equity concerns. Therefore, the research must include equity performance indicators. Here the difficulty is in obtaining adequate measures of equity. One possibility is to apply some form of the Physical Quality of Life Index (PQLI) as developed by Morris D. Morris (1979, pp. 20-87). The PQLI measures literacy, infant mortality and morbidity rates for the entire population on a percent index. If the development benefits are equitably distributed then the PQLI should show

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[3]See Chapter 6 for an analysis of seasonal price fluctuations.

greater improvement than if the distribution pattern is skewed. The problem with applying the PQLI is the time framework of the research. Most marketing research is carried out over a short period of time, but it may take longer to see even the slightest improvements in the PQLI, especially from indirect sources. As such, a better alternative is to use some other criterion as a benchmark for the PQLI. In this case, access to markets may prove useful. While access to markets may not be a sufficient condition to demonstrate equity, it is a necessary one. Together with the other efficiency criteria as presented by Herman, access to markets can demonstrate equity. This suggests that if the poorest have access to markets and the markets are efficient, then the poorest are benefiting equally.

1.5.2. Structure Analysis Modifications

Along with modifications in the performance analysis, additions to the structural aspects of SCP analysis are important to obtaining meaningful results from staple food crop marketing studies in developing countries. In this regard, three additional aspects should be included in the structural analysis. First, the analysis should cover the structural differences that exist in the marketing system between surplus and deficit production areas. Secondly, this analysis should be extended to cover the differences between the various levels of the marketing system. Lastly, the analysis should consider the influence of other economic sectors as well as the marketing system itself on the staple food crop marketing system.

In developing countries, and especially in the Sahel, the marketing system for staple food crops differs considerably from the surplus to the deficit production areas. Marketing systems differ between these two zones, particularly in aspects such as, place of sale, major intermediaries, size of transaction, frequency of sale, and terms of transactions. Some of the variation can be attributed to greater producer alternatives in product sales in the surplus areas.

Producers in the surplus areas grow a greater variety of products and this allows them greater choice in their marketing strategies (e.g. what products they sell, when, and where). In addition, the larger quantities

of staple crops available for sale in the surplus areas alter the trading practices of the market intermediaries[4]. As such, these are structural differences that will affect the outcome of the performance analysis and therefore, must be accounted for.

Similarly, structural differences at different levels of the marketing system need to be considered. In the past, marketing research on staple food crops focused on the urban marketplace on the assumption that small producers do not produce for the marketplace. Only limited research was performed on the markets where producers sell, and then only with regard to the large-scale producers. However, Hans Georg Bohle from a study of Indian grain markets discovers that 50 to 60 percent of the small producers' food crop is marketed (Bohle, 1983, p. 3). This is a considerable portion of their output, although it is absolutely smaller than that for the larger farmer. Moreover, Bohle points out that the collection system for small farmer produce is vastly different because of the smaller quantities involved. While the relative figures for farmers in West Africa may be different, there is still a considerable portion of small farmer food crop production that is marketed[5]. In addition, the marketing system, as in India, is quite different at the lowest levels of the system.

A third major structural aspect that needs to be included in these studies is the influence of a dynamic marketing system and other economic sectors on the marketing system itself. J.D. Shaffer, criticizes current SCP analysis as being static in nature; it does not focus attention on the changing structure of the system (Shaffer, 1968, p. 1443). According to Shaffer, the marketing system for staple food crops (especially in the developing world) dynamic in nature. As such, to effectively control the system it requires an assessment of what the system is becoming and what impact alternative methods of operations

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[4]This issue is not addressed directly in many of the staple food crop marketing studies. One can find reference to changing market structures between surplus and deficit areas in Jones, 1972, Lele, 1971, and Sanhoudi, 1979. In addition, it is a major focus in this study.

[5]Current estimates of staple food crop marketed are 20-25 percent for all households and somewhat larger for smaller producers. See CILSS report on grain marketing in the Sahel, op. cit.

would have on it. Shaffer refers to this method of analysis as "Scientific Industrialization". Ironically, Shaffer is criticized for eliminating the distinctions between other areas of agricultural economics by including public policy, land economics, credit, farm management and marketing is in his approach (Ibid., p. 1450), because without analyzing these structural aspects it is rather difficult to assess the performance of the marketing system. Moreover, changes in the marketing system itself will have a fundamental impact on the overall performance of the system. However, in part, the criticism of Shaffer's theory is valid in that to perform a "Scientific Industrialization" study requires greater resources than most research projects have. As such, only some form of these influencing factors can be incorporated; and they are likely to be only those that have a somewhat direct impact on the staple food crop marketing system, such as public policy.

1.6 METHODOLOGY

Although not all of the modifications to the SCP could be effectively integrated into the research, the general development orientation of the changes are incorporated into the study of the grain marketing system in the Volta Noire. The aim, in this regard, is to broaden the analysis to include, as much as possible, the factors influencing the growth and development process in Burkina Faso. Thus, while the specific purpose of this study is to analyze the efficiency of the grain marketing system, especially at the producer level, the important development issues are reported on as well.

The general purpose of the study is to analyze the grain marketing systems in the Volta Noire region of Burkina Faso in order to determine whether it operates efficiently, specifically at the producer level. In so doing, we would hope to see whether the marketing system provides producers with the best possible outlet for their produce. If this is not the case, then the supplemental aim would be to evaluate alternatives or modifications to the marketing system.

The study was carried out in the Volta Noire, over a period of 8 months, from August 1983 through March 1984. The first 6 weeks were devoted to organizational matters including hiring and training of

enumerators, and installations in the field. The primary means of data collection are price surveys and in-depth producer and trader interviews. Due to limited resources and time, a rapid survey technique was employed. As such, during the course of field research, a total of 7 primary markets and another 20 secondary markets across the Volta Noire were studied. In the primary markets, prices were collected every 2 weeks and both traders and producers were interviewed on a regular basis. The research technique in the secondary markets was designed to complement the research in the primary markets. In these markets corroborating evidence was sought on a qualitative basis. This involved interviewing traders and producers by means of a prepared questionnaire. In these markets price fluctuations were gathered on a qualitative basis.

Trader and producer interviews were conducted by either the researcher, or by trained Burkinabè enumerators. The trader interviews in both the primary and secondary markets were designed to go from the general to the specific. Initially, larger marketing issues were discussed, and were followed by the traders' specific activities. In many cases trader margins and costs were analyzed as well as was their trading history. The producer interviews were used to discover and analyze the producers' general trading patterns. Included in this, were questions on market access and availability of marketing information.

The analysis was guided by the traditional structure, conduct, performance model with several additions. While the structure analysis rests on Cave's original elements, it is modified to show structural differences between surplus and deficit regions and at different levels of the marketing system.

The performance analysis uses margin analysis to determine the efficiency of the firm. In addition, tests for access to marketing information were used to demonstrate price responsiveness and integration of the marketing system. This was complemented by a comparison of seasonal price fluctuations to substantiate the information test. Finally, producer access to marketing outlets was used as a measure for equity.

1.7 CHAPTER SUMMARY

This first chapter is an introduction to the question of efficient grain markets in Burkina Faso, and a review of the relevant literature. The importance of efficient staple food crop markets to development was stressed, and the means to measure the efficiency of the marketing system, the SCP framework, was presented. However, to employ the SCP model properly in developing countries, certain modifications were introduced. These include changes in the structure and performance aspects of the research. In so doing, the SCP framework will be more capable of evaluating the efficiency of the grain marketing system in the Volta Noire, and identifying the impediments to marketing efficiency.

CHAPTER TWO

OVERVIEW OF VOLTA NOIRE[1]

The selection of the Volta Noire for this study is based on the central role the region plays in the both the grain and cash crop markets of Burkina Faso. While it is not the region with the greatest surplus, the produce of the Volta Noire is crucial to many other regions in Burkina Faso. Due to a significantly higher level of rainfall and better soil fertility than in many other regions of Burkina Faso, this region is a large exporter of a variety of staple and cash crops. This production potential is being developed further through the introduction of irrigation and other output raising schemes.

As the development of the Volta Noire is regarded as being central to the overall development of Burkina Faso, it is important for the policy planners to be aware of any constraints to the development of the region. This includes constraints in both the productive and service sectors. Within the service sector the efficiency of the marketing system for staple food grains is a paramount concern. The markets for food grains are important to producers and consumer alike. This holds true in the Volta Noire in particular, as it is a major supplier of grain to the rest of Burkina Faso. The study focuses on the efficiency of the grain marketing system in the Volta Noire in order to determine whether the system is a constraint to the development of the region and in particular to the producers of the Volta Noire.

This chapter presents a description of the Volta Noire region of Burkina Faso. Included in this description are the geographic, demographic and ecological issues that influence the grain markets in this region. In addition, the chapter contains a summary of the most recently published statistics concerning staple and cash crop production in the Volta Noire.

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[1]The Volta Noire is the old administrative center that was divided into the Provinces of Mou Houn, Kossi, and Sourou after the August 4, 1983, revolution.

2.1 GENERAL DESCRIPTION

The Volta Noire is one of the 10 administrative centers Burkina Faso had been divided into before the August 1983 revolution. It is located in the western part of the country, sharing common borders with the Republic of Mali and four other now defunct administrative centers, the North (Yatenga), Center-West, South-West and Hauts-Bassins. The Volta Noire region is named for the Volta Noire river which bisects the region. The river flows 150 miles north from the Hauts-Bassins, then turns southward after joining the Sourou river and exits to the Central-West region. The river continues to flow all the way through Ghana, and is the only river that flows year round in Burkina Faso (See Maps 2.1 and 2.2).

Dédougou is the capitol of the Volta Noire. It is located almost in the center of the region, approximately 250 miles west of Ouagadougou, the nation's capitol, 120 miles north of Bobo-Dioulasso, and 130 miles southwest of Ouahigouya. Before the August 1983 revolution the region was divided into 6 Regional Development Authority (ORD) sectors, Dédougou, Nouna, Solenzo, Boromo, Kougni and Tougon. Each sector had its regional development office which supervised the activities in its area.

The population of the Volta Noire in 1983 was estimated to be 722,200, the majority of whom live in the northernmost sectors of Tougon and Toma, and the northern sections of the Nouna sector. The Bobo and the Dafing (Marka) tribes are the largest indigenous ethnic groups in the region. However, the southern areas of the Volta Noire, particularly around the city of Solenzo, have been subject to an in-migration of Mossi from the overpopulated Northern and Sahelian areas.

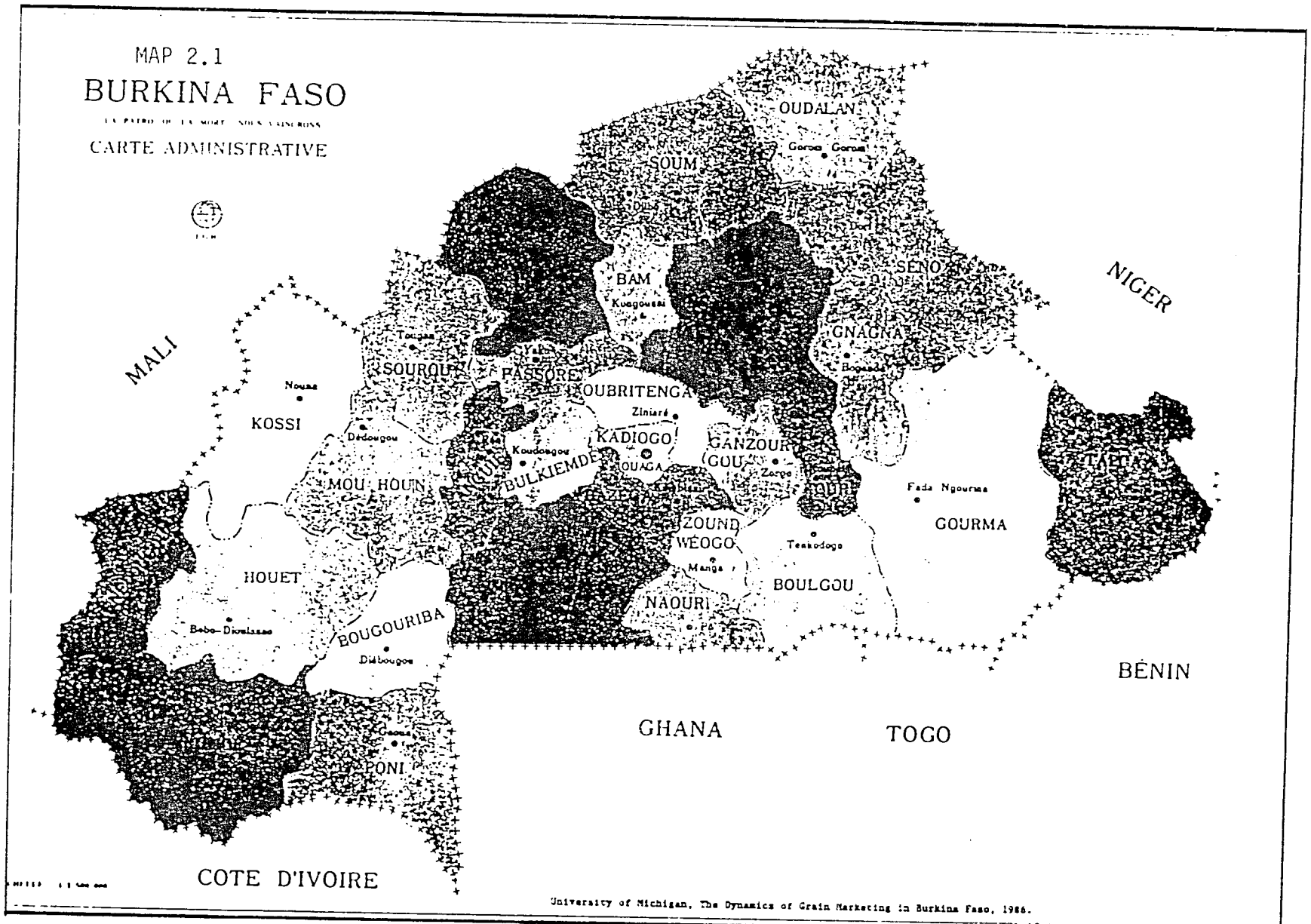
Because of the presence of onchocerciasis (river blindness disease) the banks of the Volta Noire river have been somewhat depopulated. This means that some of the most fertile land in Burkina Faso has been left fallow for decades. Only recently, with the introduction of the World Health Organization's "Oncho" campaign has there been a return to cultivation along the river.

Transportation in the region is at best described as practical. There is no railroad nor river transportation in the Volta Noire. The major arteries run from southeast to northwest and southwest to

MAP 2.1

BURKINA FASO

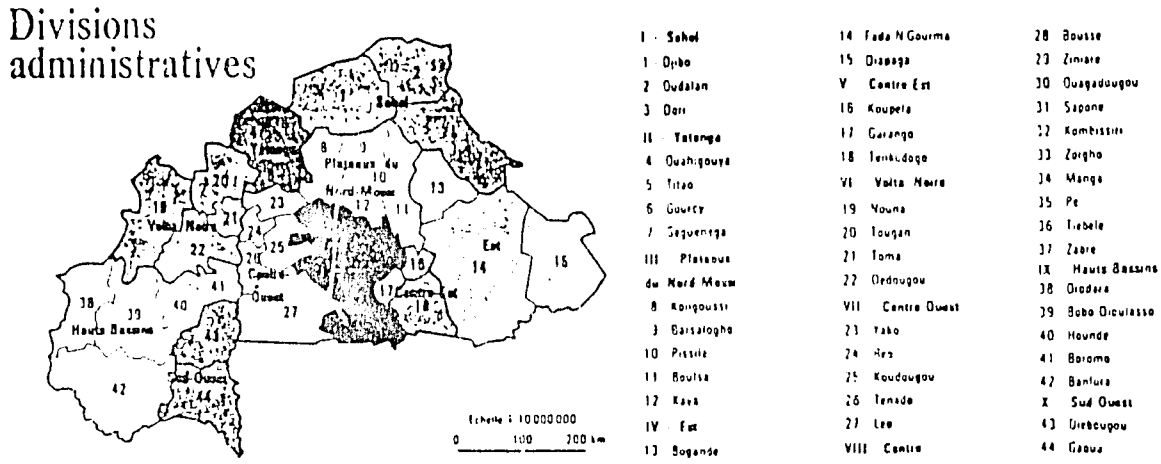
CARTE ADMINISTRATIVE



University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

northeast, crossing in Dédougou. There are also numerous secondary and tertiary roadways of varying quality. While at this time none of these roadways are paved, they are nearly all passable during the dry season. In the rainy season though, many of the smaller roads are impassable,

Map 2.2



closing off many villages and markets to vehicular traffic. As a result, the trading opportunities for inhabitants of these areas are somewhat limited.

Many in the region believe that commerce in the region could be facilitated with an improvement in transportation. Towards this goal, the Burkinabè department of public works is planning to pave the road between Bobo-Dioulasso and Ouahigouya which passes through the Volta Noire region. This project, whenever completed, would restore one of the worst roads in the region, and probably improve the access to some of these inaccessible areas.

2.2 AGRICULTURAL PRODUCTION

The cultivation season in the Volta Noire is approximately 5 months long. Farmers begin clearing their fields in May before the onset of the rainy season, and harvest their crops around October, a few weeks after the last rains. Millet usually matures before sorghum, leading to an earlier harvest in the northern sectors of the Volta Noire where millet

predominates. In the southern areas some farmers may be in the fields well into November collecting both their grain and cash crop harvest (see map 2.3). During the dry season, many male members of the household look for employment in the Ivory Coast. For 5 months they work on the plantations and in the light industries of Bouaké and Abidjan, and return to Burkina Faso sometime in April to prepare for the coming planting season. This is especially true of the more northern villages in the Volta Noire.

The Volta Noire can be divided into two distinct ecological zones. Savannah in the south and Sudanic in the north. The southern areas average 1,000mm of rainfall annually while the northern areas average 600mm of annual rainfall. In 1983 though, the Volta Noire experienced a 30 percent decline in rainfall, causing one of the worst droughts in the region's history.

2.2.1 Grain Production

The eco-climatic variation in the Volta Noire divides the region into two agro-production zones. There is a high grain surplus and cash crop zone in the southern half, and a marginal zone in the northern region. The southern region includes the Regional Development Authority (ORD) sectors of Solenzo, Dédougou, and Boromo. The primary grain cultivated in these areas is white sorghum, and cotton is the most widely produced cash crop. The 1983 estimate for cereals production in the southern sectors was 90,925 metric tons, or 635 kilograms per capita.[2] For the same period, approximately 28,620 tons of cotton were produced. These figures represent a decline of about 10,000 metric tons of grain and a slight increase in the production of cotton for the year.

The northern region of the Volta Noire, contains the ORD sectors of Nouna, Kougni, and Tougon. In contrast to the southern areas, millet and red sorghum are the primary cereals. In 1983 total grain production for these sectors was approximately 85,120 tons, or 460 kilograms per

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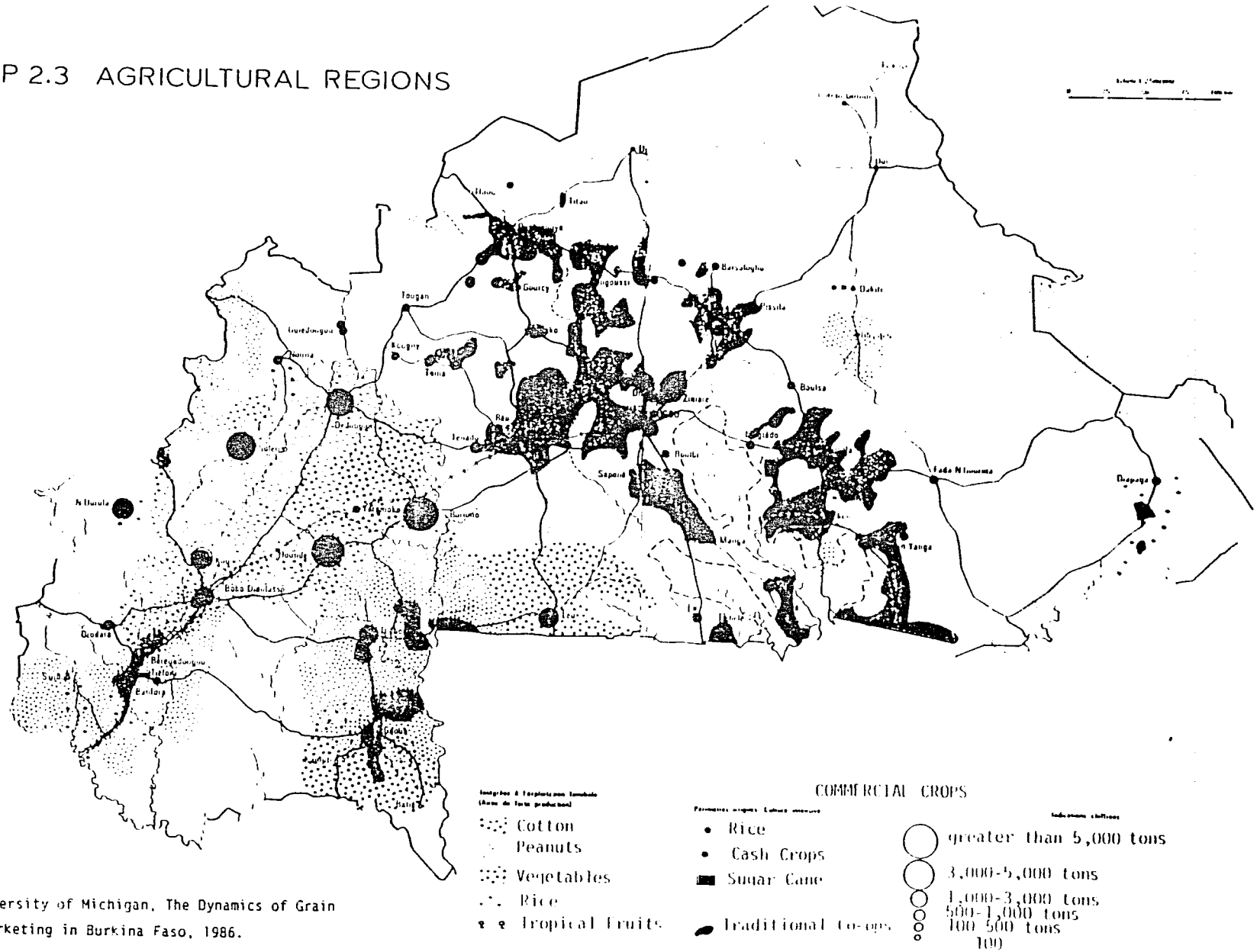
[2]Production estimates as well as annual grain requirement comes from data supplied by the Regional Development Authority (ORD) in the Volta Noire. The ORD maintains a staff of extension agents throughout the region who enumerate the data.

MAP 2.3 AGRICULTURAL REGIONS



University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

capita. Compared to the grain harvest in 1982, this represents a decline of about 13,000 metric tons, or 70 kilograms per capita, which is attributed to the severe drought conditions which prevailed in these areas during the 1983 season.

In addition to higher rates of per capita production, per hectare yield is greater in the south as well. In the southern sectors, average yields for millet were 15 percent higher, and almost 30 percent higher for sorghum than in the three northern sectors. In 1983, the northern sectors per hectare production estimates were 662 kilos for sorghum, and 619 kilos for millet, while in the southern sectors, they were 899 and 752 kilos for sorghum and millet respectively (see Tables 2.1 and 2.2).

In as much as one can rely on these estimates for grain production in Burkina Faso, the Volta Noire seems to be one of the most productive areas of the country.[3] Table 2.3 shows the FAO's summary for the average output and production in Burkina Faso between 1974 and 1983. From this table one can observe that in the 1982 and 1983 yields for millet in the Volta Noire were much higher than the national average. In 1983, the national average was 444 kilograms per hectare and in the Volta Noire it was close to 700 kilograms per hectare. Similar figures hold for 1982 as well. While the contrast for sorghum is not as great, the yields in the Volta Noire are still higher than the national average; approximately 800 kilograms per hectare in 1983 and 1982, compared to 700 for the national average during that same period (see Table 2.3).

In terms of production, the Volta Noire produces about 17 percent of the national grain output. In 1983, the Volta Noire produced 176,000 metric tons of sorghum and millet compared to a national average of 1,100,000 metric tons. In 1982, the Volta Noire's contribution was even greater; 186,000 metric tons of the 1,054,000 produced nationally (see Table 2.3).

2.2.2 Cash Crops

Cotton is the largest cash crop produced in the Volta Noire, but its

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[3]Estimates of grain production tend to be somewhat unreliable. They are often off by as much as 30 percent. See CILSS (1977) country studies for more detailed analysis on production figures.

Table 2.1

1983 Estimated Grain Production

Grain / Provinces	Sorghum		Millet		Maize		Total Production*
	Kg/Ha	Tons	Kg/Ha	Tons	Kg/Ha	Tons	Tons
Boromo	900	16,200	750	5,400	950	2,565	25,149
Dedougou	850	25,500	700	11,200	900	2,070	39,340
Solenzo	1,000	22,400	800	3,600	1,200	5,760	32,060
Kougny	850	14,375	700	9,380	750	150	24,461
Nouna	700	19,600	650	14,950	800	1,040	35,717.5
Tougan	650	20,150	550	13,750	600	60	33,978
Total V.N.	--	118,725	--	58,280	--	11,645	190,705.5

* includes rice production

Source: Ministère du Développement Rural, Secrétariat Général du Ministère, "Programme D'Activites, Campagne Agricole 1983 - 1984", O.R.D. De La Boucle De La Volta Noire, Dédougou, Upper Volta, 1983, p.22.
University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

Table 2.2

1982 Estimated Grain Production

Grain / Provinces	Sorghum		Millet		Maize		Total Production*
	Kg/Ha	Tons	Kg/Ha	Tons	Kg/Ha	Tons	Tons
Boromo	825	19,400	650	6,470	850	2,270	29,165
Dedougou	800	21,700	700	11,085	850	1,850	34,885
Solenzo	950	30,500	825	3,560	1,100	4,145	38,400
Kougny	800	16,570	800	10,280	750	120	27,000
Nouna	645	18,000	640	16,125	750	800	35,000
Tougan	600	21,500	550	14,730	550	55	36,300
Total V.N.	--	127,670	--	62,250	--	9,240	200,750

* includes rice production

Source: Ibid. pp. 43/44.
University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

Table 2.3

Upper Volta Output and Production 1974 - 1983

	Output: (Kg/Ha)				Production: (1,000 MT)			
	74-76	81	82	83	74-76	81	82	83
Millet	425	404	393	444	364	364*	354F	400F
Sorghum	589	750	700	700	666	750*	700F	700F
Groundnuts	494	453	453	489	83	77F	77F	78F
Sesame	183	178	175	178	7	7	7F	7F

* = Unofficial estimate
F = FAO estimate

Upper Volta Cereal Production Indices (1974-1976=100)

1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
78	77	73	104	110	87	94	110	106	89	113	109

Source: Food and Agriculture Organization (FAO), Monthly Bulletin of Statistics, Vol 6, No 12, December 1983, pp. 14/18/39/42.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

production is limited mostly to the southern sectors. Total production of cotton in the Volta Noire rose in 1983 to 31,450 tons with the southern sectors (Boromo, Dédougou, and Solenzo) producing 28,620 tons (see Table 2.4). This production skew reflects the more favorable growing conditions for cotton in these areas, as well as the ability of farmers in the southern areas to divert resources from grain to cotton production.

While conditions in the Volta Noire may favor cotton production, producers have faced some difficulties in marketing their crop effectively. Cotton marketing in Burkina Faso is controlled under a legal monopoly by the "Compagnie Française de la Développment des Fibres

Table 2.4

1983 Cash Crops Production and Productivity Estimates

Product / Province	Cotton output (Kg/Ha)	Cotton production (tons)	Peanuts output (Kg/Ha)	Peanuts production (tons)	Sesame output (Kg/Ha)	Sesame production (tons)
Boromo	1,000	7,700	520	1,040	320	57.5
Dedougou	930	6,500	550	825	300	270
Solenzo	1,100	16,000	700	525	350	161
Kougny	800	500	550	550	300	150
Nouna	725	700	600	5,400	325	357.5
Tougan	500	50	400	380	300	210
Total V. N.	-	31,450	-	8,720	-	1,206

Source: Ministere du Developpement Rural, Secretariat General du Ministere, "Programme D'Activites, Campagne Agricole 1983 - 1984", O.R.D De La Boucle De La Volta Noire, Dedougou, Upper Volta, 1983, p. 23.
University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

Table 2.5

1982 Cash Crops Production and Productivity Estimates

Product / Province	Peanuts output (Kg/Ha)	Peanuts production (tons)	Sesame output (Kg/Ha)	Sesame production (tons)
Boromo	520	1,025	320	55
Dedougou	500	225	300	235
Solenzo	700	495	340	155
Kougny	550	470	305	115
Nouna	640	5,250	325	315
Tougan	300	270	290	180
Total V. N.	-	7,735	-	1,055

Source: Ibid. pp. 43/44.
University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

Textiles" (CFDT). The CFDT supervises the sale of off-farm inputs to cotton growers as well as the collection, processing, and marketing of cotton. In the past, almost 90 percent of the Burkinabè cotton production was exported, and the remaining 10 percent was sent to the domestic textile mill, VOLTEX.

Through its monopoly, the CFDT applies government set producer prices and marketing margins for the collection of cotton. To collect cotton, the CFDT employs the Regional Development Authority (ORD) in the local areas. For their services the ORDs receive a set commission for the amount of cotton collected. The ORDs send trucks to collect the cotton in the villages and to bring it to the local processing mills. In the village the ORD representative weighs the cotton and pays the producer based on the established producer prices. However, the ORDs have had difficulties in effectively moving the cotton from the producer to the mills. Due to a shortage of equipment and a capacity constraint at the local mills, there are generally long delays in the ORD's cotton collection program. Often farmers must wait an additional 4 to 6 weeks for the ORD to arrive. As a result, farmers who rely on the revenues from their cotton sales to pay off their planting debt are forced to sell other goods in order to do so. Most likely, this entails the sale of food grain, at lower post-harvest prices.

Other cash crops produced in the Volta Noire include sesame, peanuts, and shea nuts. Sesame, is a relatively small crop for the Volta Noire, only 1,100 tons are produced annually. In addition, its importance as a commercial crop has been declining with its decline in export. Sesame is grown primarily in the northwestern areas of the region, in the sector of Nouna. Total peanut production for the Volta Noire was estimated in 1983 to be 6,465 tons, a decline of 1,270 tons from 1982. Production declines are most likely attributed to poor rains and a decrease in land under peanut cultivation. Of the total regional production, 3,700 tons, or 57 percent is produced in the sector of Nouna, and 4,390 tons, or 68 percent in the three northern sectors combined. (For production estimates see Table 2.4 and 2.5.)

The importance of peanuts as a cash crop in the northern sectors and cotton in the south is best reflected in a sector by sector comparison of the land devoted to their production. While yields per hectare are

greater in the southern sectors, it is in the northern areas where there is a greater proportion of lands devoted to peanuts. Yields per hectare average 626 kilograms in the south and 463 kilograms in the north. Nevertheless, of the total area devoted to peanuts, 74.2 percent is in the northern sectors. Likewise, the same may be said of cotton production in the south where 94.8 percent of all lands devoted to cotton are in the three southern sectors.

Shea nut, or karité in French, is an oily seed from the shea tree, and is used for butter or oil in the rural society and is a basic ingredient for making candles and cosmetics. Farmers often cite shea nut sales as important sources of cash. In addition, traders claim that in years with low grain output, shea nuts are the dominant crop in the markets of the northeastern sectors of the Volta Noire. However, the Rural Development Authority (ORD) does not collect data with regard to the production and harvest of the shea nuts.

The marketing of these cash crops is regulated by the "Caisse de Stabilisation des Prix des Produits Agricoles" (CSPP). As the main marketing agent for these crops the CSPP appoints licensed agents, both private and public, to collect these cash crops. Until 1975, the CSPP employed an indirect pricing system for these crops. Agents would pay producers a price that was somewhat higher or lower than the market price depending on the conditions of the transaction and the agent's margin. In 1975, the payment system was changed. Since then, agents have paid producers the official producer price for their crop and have received a fixed commission for shipping, handling, and profit from the CSPP.

Other crops produced in the region and frequently marketed include maize, cow peas, legumes and vegetables. Maize is cultivated mainly in the villages of the region close to the Volta Noire river. This is because of its higher water requirement. As such, only few farmers in the Volta Noire benefit from it, although many enjoy the taste of maize and maize based foods. Maize also matures earlier than the sorghum and millet crop does, allowing it to be harvested in early September. Thus, it is tasteful as well as useful to farmers as a stopgap to cover the farmer's nutritional need through the harvest.

Cowpeas, like shea nuts, are important to the cash economy of the household, but it is not exported from the region in great quantities.

Cowpea sales are primarily to prepared food sellers, who make beignets or fritters with its flour to sell in the mornings and on market days.

Of the legumes and vegetables grown in the Volta Noire most are produced in organized or collective farms. Major varieties of vegetables produced in the region include string beans, potatoes, tomatoes, onions and lettuce, with the first four being produced largely for export. Only a small portion of this crop is marketed locally, usually in the areas surrounding the village. As such, the local market conditions for these vegetables does significantly affect their production.

In addition, many households have small vegetable gardens that are cultivated by the women of the household. These gardens, often in or near the household compound, produce a variety of vegetables (different from those on the large-scale farms), including eggplant, red peppers, and okra. The items are infrequently marketed, usually being saved for household consumption.

Actual Grain Surplus

The actual grain surplus depends on per capita need being covered by local production. Table 2.6 reflects the actual surplus experienced in

Table 2.6

Actual Surplus* 1983 - 1984

1 Provinces	2 Population	3 Estimated Grain Production	4 Less 10% for seed	5 Available Surplus	6 Nutritional Needs	7 Actual Surplus (5 - 6)
Boromo	84,100	24,640	2,464	22,176	18,081.5	+ 4,094.5
Dedougou	144,600	35,170	3,517	31,653	31,089	+ 564
Solenzo	86,100	31,115	3,111.5	28,003.5	18,511.5	+ 9,492
Kougny	82,300	25,820	2,582	23,238	17,694.5	+ 5,543.5
Nouna	145,800	29,755	2,975.5	26,779.5	31,347	- 4,567.5
Tougan	179,300	29,545	2,954.5	26,590.5	38,549.5	-11,959
Total V.N.	722,200	176,045	17,604.5	158,440.5	155,273	+ 3,167.5

* All Figures in Tons

Source: "Carrefour Africain, number 808, December 9, 1983", p.18

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

the Volta Noire. With a total population of 722,200 and per capita grain need estimated at 215 kilos[4] per annum, total grain need in the Volta Noire would be 155,273 tons for the 1983 crop year. Total grain production for 1983, after accounting for seed (10 percent) is 158,441 tons. This leaves a surplus for the region of 3,167 tons for 1983 compared to 25,402 tons in 1982. By sector, the situation is even more acute. In the northern region only the Kougny sector has a surplus (5,544 tons); production less sector needs leaves the Nouna and Tougon sectors in a deficit of 4,568 and 11,959 tons respectively. In 1982, surpluses of 6,605 and 153 tons were recorded in Kougny and Nouna respectively, while the Tougon sector experienced a shortfall of 5,580 tons. Due to lower population densities and greater productivity the southern sectors enjoy a larger actual surplus than those in the northern Volta Noire. For 1983, the southern sectors have an aggregate surplus of 10,203 tons after accounting for production seed and per capita needs. By sector, the Solenzo area has a surplus of 9,492 tons; Boromo, 4,095 tons, and Dédougou, 564 tons of actual surplus grain. Although in these sectors as well, the surplus for this year is lower than that of 1982. That year the aggregate southern sectors surplus was 2,454 tons, and by sector was 8,166 tons in Boromo, 307 tons in Dédougou and 16,048 tons in Solenzo.

The net grain surplus -- production less seed and estimated regional consumption requirements -- for the Volta Noire region was calculated as 3,200 tons for 1983 and 24,000 tons in 1982. However, for several reasons these figures may not reflect the actual amount of grain sold in the region. In fact, sales may be higher than the reported figure. In the first place, the grain requirement of 215 kilograms per capita may be too high. USAID uses a figure of 180 kilograms per capita for annual grain requirement and other donors' figures fall between the Burkinabè and USAID ones.

Additionally, during the year, changes in the household composition significantly affect grain consumption patterns and requirements. During

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[4]National estimate for per capita annual grain requirement.

the dry season, particularly in the northeastern part of the region, many male members of the household travel to the Ivory Coast in search of seasonal employment. Wives as well, may leave the household for extended periods during the dry season to visit family members and relatives far away, (possibly in higher surplus areas). This prevents a rundown of on-farm stocks, and can create a potential surplus to cover the household through the "hunger" period.

Most importantly, a households' cash needs may be greater than the potential cash realized from their cash crop and surplus grain sales. Therefore, producers especially in the marginal surplus sectors, must often sell grain from required stocks to meet their immediate cash needs. They will do so even if it means having to re-purchase grain later at a higher price. Thus, exaggeration of the grain requirement figures, seasonal changes in household composition, and immediate cash needs often cause the amount of grain sold to be higher than the reported surplus.

CHAPTER THREE

THE GRAIN MARKETING SYSTEM

INTRODUCTION: HISTORY OF THE MARKETING SYSTEM

The grain marketing system in the Volta Noire evolved from the complex trading system employed by the Lebanese merchants in the markets for cash crops nearly fifty years ago. Lebanese merchants, trading from Mali, began buying cash crops, such as, sesame and shea nuts in the surplus areas of the Volta Noire. To buy these crops, the merchants employed agents who set up collection networks in the villages and markets of their areas. The merchant entrusted funds to his agent to assemble these crops and to store them till he would return to the Volta Noire to collect them. Several times during the year, the Lebanese merchant would pass through the region to collect the assembled crops and to reward the agent for his services. The merchant would then transport the cash crops to one of several cities in Mali from which they were exported to Europe. Eventually the Lebanese merchants extended their activities to the collection of grain for the domestic, Malian market. The grain was assembled by the same agent through the cash crop network.

But trade between Mali and the Volta Noire declined as national, Burkinabè markets were established, and traders from the Mossi plateau began purchasing cash crops and grain in the Volta Noire. These traders cultivated their own network of agents and buyers, especially in the marginally surplus areas of the region that were previously neglected by the Lebanese traders. Furthermore, at the same time, the Lebanese traders began to retire from the Volta Noire trade and left their operations in the region to their agents. These agents continued to utilize the network of village and market buyers, only now the produce was directed towards the urban centers of Burkina Faso. Moreover, the Mossi traders from outside the region now cultivated their own network of agents and buyers, especially in the marginally surplus areas of the region that were previously neglected by the Lebanese traders.

Today the grain marketing system in the Volta Noire is dominated by the large wholesale traders from both Ouahigouya in the Yatenga and Bobo-Dioulasso in the Hauts-Bassins, as well as by the former agents of

the Lebanese merchants who have evolved into the large regional wholesale traders. All of these traders continue to use and develop a network of assemblers and agents to facilitate their grain collection. This chapter describes the various intermediaries in the grain marketing of the Volta Noire and the range of activities they perform. Moreover, this chapter will also present a description of the major collection networks employed in the grain markets including the types of markets, the primary transactions, and the major flows of grain within and from the region.

In addition to the private grain marketing system in the Volta Noire, there is an established public sector channel for grain sales. This system is relatively new to the Volta Noire, but in a short period of time it has become an important institution in the grain marketing system. This chapter will therefore also describe the official grain marketing system in the Volta Noire.

3.1 INTERMEDIARIES

Grain markets in Burkina Faso are characterized by a large number of intermediaries, each performing different functions. This characterization holds true for the grain markets of the Volta Noire as well, as there are a variety of intermediaries at all levels of the marketing system. Some operate only in one marketplace and others travel between several villages and markets. There are intermediaries that deal exclusively in grain, and others that trade a variety of products. In addition, the differences among these traders extend to the volume of grain they trade, the type of measuring units they employ and the additional services they provide. This section is a brief description of the major intermediaries in the grain markets of the Volta Noire.

3.1.1 The vendeuse or saleswoman is the most common grain dealer in the marketing system. The vendeuse intermediates between producers and consumers at the retail level of the marketing system. She buys and sells small quantities of grain, generally no more than several kilograms per transaction, as she does not have large amounts of cash. Moreover, the vendeuse may also trade other goods including rice, cowpeas, spices, shea nuts, and ground nuts. The vendeuse trades either inside or out of the marketplace. Sometimes she buys on the roadside leading to the

marketplace or in her village from villagers wanting to sell grain before the next market day.

The vendeuse employs the smallest of measuring units in her transactions. She prefers either the louche, a small ladle, or the assiette, a small bowl. These measures have fixed prices for both purchases and sales. As such, to lower the effective purchase price, the vendeuse employs a large louche when purchasing grain, and a smaller size to raise the price of sales.

In some areas of the region the vendeuse may also be an assembler of grain, but this is usually when she is working directly with a large trader who provides the funds. In the Nouna sector in particular, the vendeuses are employed almost exclusively by the local wholesale traders. The traders send the vendeuse via the regional transporter or "bush taxi" to purchase grain in several of the small and regional bush markets of the sector. With the funds provided by the trader the vendeuses are generally able to assemble between two and three one hundred kilogram sacks of grain in a given market. But as this is an atypical role for the vendeuse, it is limited to the vendeuses of the Nouna sector alone.

3.1.2 The village agent does not operate in the marketplace. Rather, the agent buys grain in one or more villages on a commission basis for a larger trader. The agent purchases grain with cash funds provided by the trader, and stores the grain in his village until the trader comes to collect it. The agent prefers to buy with a tine, a decalitre measure but will sometime use smaller measures when the quantities transacted are not large enough. In addition, the village agent may also purchase cash crops such as sesame, shea nuts, and ground nuts, and sometimes offers credit with the trader's consent.

3.1.3 The village broker is similar to the agent except that he is only a broker between the trader and the producer. The broker locates villagers wanting to sell larger quantities of grain and brings the trader to buy from them. In this way, the trader does not spend time looking for sales. In addition, the broker, being known to the producer, provides the assurance that the transaction is fair. For his services as

well, the broker receives a piece rate commission from the trader.[1]

3.1.4 The local assembler varies in importance and activity throughout the Volta Noire. In the deficit markets of the region the assembler is a relatively unimportant intermediary. In the surplus areas though, he may be the primary marketplace trader.

In general, the assembler purchases moderate quantities of grain to bulk for either wholesale traders or to resell himself. Purchases made for other traders are done on a commission basis, and the grain is stored for an additional fee, until the trader comes to collect it. When purchasing grain for himself, the assembler will either store the grain till the preharvest season when prices are higher, or more likely, resell the grain immediately to another trader. Another outlet for the assemblers grain is the official grain marketing board OFNACER.[2]

The assembler generally buys grain by the tine. Although, at times he purchases smaller quantities, he will usually offer disproportionately lower prices for grain purchased as such. The major suppliers of grain to the assembler are the producer and the vendeuse. The assembler buys grain from the producer in the village or the marketplace, most often the latter. In addition, he may buy grain pre-assembled into tines by the vendeuse of a particular area.

3.1.5 Regional wholesale traders are larger merchants, dealing in grain, who reside and operate solely in the Volta Noire. Generally these traders act independently, financing their operations themselves, and have access to their own trucks. In some of the rural areas, there are regional traders who receive commissions from national wholesale traders, in addition to their own personal activities.

These traders deal primarily at the wholesale level either buying pre-bulked quantities from local assemblers or commissioning village agents to do grain purchases. Some regional wholesale traders deal directly with the vendeuse, either buying together in the marketplace or

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[1]See Polly Hill "Markets in Africa" for a description of the landlord (broker) in West African Markets.

[2]The official grain marketing systems and OFNACER are discussed later in this chapter.

sending her to purchase grain alone in the small bush markets.

The regional wholesaler resells bulk grain to either national traders or to individuals in his base city, including civil servants and farmers whose crop has failed. The regional trader rarely sells loose quantities of grain at the retail level. However, sometimes groups of consumers buy from the trader in bulk and later divide it amongst themselves.

The regional wholesale trader also trades other goods and crops. They buy cash crops such as peanuts, sesame, and shea nuts also through assemblers and village agents and resell them to exporters in Ouagadougou or Bobo. Moreover, many of the regional wholesale traders have retail shops, bars, and other businesses in the urban centers where they reside.

3.1.6 National Wholesale Traders are long distance traders primarily from Bobo-Dioulasso and Ouahigouya. These merchants are generally from the Mossi tribe, and have large-scale trading networks in and out of the Volta Noire. But the patterns of trade followed by these merchants differs depending on whether they are from Bobo-Dioulasso or Ouahigouya. In general, the Bobo-Dioulasso traders trade in the marketplace, while the traders from Ouahigouya prefer to buy in the villages. Moreover, the Bobo-Dioulasso traders purchase a variety of cash crops including shea nuts, peanuts and sesame in addition to grain. The Ouahigouya traders on the other hand deal exclusively in grain.

The wholesale traders from Bobo-Dioulasso buy grain primarily in the Nouna and Dédougou sectors, and somewhat in the Solenzo sector. Each trader has a few regular marketplaces in which he purchases grain and cash crops. These traders buy grain either directly from the producer or through a commissioned agent. When buying grain directly from the producer the trader must come to the Volta Noire for every market day. Otherwise, he can wait until the assembler accumulates a sufficient quantity to transport. Generally, those who trade regularly in the Volta Noire have their own vehicles to do so, while the others must rent a truck when moving the grain out of the Volta Noire.

The Bobo-Dioulasso traders turn over their stocks rather quickly. They do not store grain in the Volta Noire for very long and they tend to sell the grain in wholesale quantities upon arriving in Bobo-Dioulasso. This reflects the limited capital resources of these traders.

The wholesale traders from Ouahigouya prefer to buy grain, mainly sorghum, in the Solenzo sector, but also in the Tougon and Kongny sectors of the region. These are sorghum rich areas of the Volta Noire. The larger traders from Ouahigouya make their purchases in the villages of the Solenzo region with the assistance of a village broker. These traders come to the Volta Noire immediately following the grain harvest and attempt to buy as much grain as they possibly can. Some merchants send an advance team from Ouahigouya to scout out the major surplus areas and to pre-arrange sales. The activities of these merchants though are limited to a particular group of villages that they frequent. Moreover, the Ouahigouya traders avoid buying grain in the marketplaces. They claim that in the villages they can buy pre-bulked quantities of grain, while they have to bulk the grain themselves in the marketplaces. In addition, those trading in the marketplace are required to pay a 'patente' or market tax as well as handling fees to market officials. To avoid these charges and to assemble grain more quickly the Ouahigouya traders prefer dealing in the villages.

These merchants spend 3 to 4 weeks in the Volta Noire assembling nearly 100 tons of grain. According to some, the grain is shipped to Ouahigouya on the merchants own truck where a portion is sold and remainder is stored until the pre-harvest season when the prices are higher.[3]

Smaller traders from Ouahigouya buy grain in the surplus markets of the Tougon and Kougny sector. These traders operate in a group; jointly they rent a truck and come to buy sorghum in the marketplaces of these sectors. These traders buy directly from the producer using the <u>vendeuses</u> as a broker. Their capacity is very limited in comparison to their colleagues trading deeper in the Volta Noire. They buy aproximately 4 or 5 hundred kilograms of grain and attempt to resell it immediately in Ouahigouya.

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[3]This description comes from interviews with local traders from the Volta Noire as well as some agents and traders from Ouahigouya. But there is little evidence of specific trader practices once the grain arrives in Ouahigouya.

3.2 MEASURING UNITS

There are 5 major categories of measuring units used in grain marketing: (1) the louche or ladle, (2) the assiette or bowl, (3) the boite or can, (4) the tine or decalitre, and (5) the 100 kilogram sack. Scales, however, are not used. All 5 are volume measures, but their respective capacity varies from place to place, as well as during the year, as traders attempt to adjust prices by changing the measures.

3.2.1 The louche is a small ladle with a fixed price of 5 FCFA (0.0125 cents). While this louche size is most common, there are some for 25 FCFA as well. The louche is used primarily by the vendeuse, in both the village and marketplaces. Although its buying and selling price is fixed, many vendeuses vary the size of the louche between markets and seasons. Generally the buying louche is much bigger in the bush villages and/or after the harvest than is the selling one in the marketplace and/or in the pre-harvest period. Thus, the price per kilogram varies even though the price per louche stays constant. Farmers and consumers are aware of variations in the size of the louche. A similiar situation exists for other measures as well.

3.2.2 The assiette is also a fixed price unit used primarily by the vendeuse, however, the price is not the same in all regions. In the Volta Noire the assiette is not a common measuring unit for grain. The vendeuse use it mainly for measuring cowpeas, rice and shea nuts. However, some producers selling their own cereal in the marketplace may use the assiette as a measuring unit.

3.2.3 The boite is a discarded, tomato or oil can. At one time these cans contained tomato paste and soybean oil brought by U.S. aid groups. These cans have fixed volumes, therefore, it is their price that varies.

3.2.4 The tine is a volume measure that officially should measure twenty litres, but, tines do vary in size. There are official tines, roughly 20 litres, or local tines, a catch-all for other tine sizes. The tine can be filled level to the top or with a hat which can add as much as 8 to 10 percent to the weight of the tine. The government in its attempt to regulate the marketplace has set weights for the official

tine. Filled with either white sorghum or millet, the tine should weigh 16 kilograms.

The tine is the standard measuring unit of local assemblers, and village agents. Both intermediaries generally have 2 tines, a larger one for buying and a smaller one for selling grain. In some cases they carry 3 or 4 different tines in order to alter prices and margins in between seasons, as well.

3.2.5 The 100 kilogram sack is the wholesale unit for the grain trade. This measure is used largely between middlemen and wholesalers. Generally, the weight will depend on the type of market and intermediary filling the sack. A sack when properly filled holds six official tines, and as such its weight is sometimes lower than 100 kilograms. Alternatively, when using a local tine or other measuring units the weight may exceed 100 kilograms.

3.3 GENERAL MARKETPLACE CHARACTERISTICS

The characteristics of marketplaces in the Volta Noire, such as timing, layout, the variety and quantity of goods available, as well as the numbers and types of intermediaries present, vary throughout the region. While there are some institutional similarities in the marketplaces of the region, major differences exist between those in the surplus and deficit areas.

3.3.1 Periodicity of markets There are 4 cyclical patterns to marketplaces in Burkina Faso: (1) daily, (2) once every 3 days, (3) once every 5 days, and (4) weekly. In the Volta Noire, all types are present except (2), those every 3 days. Daily markets are found only in major urban centers of a sector, but even these have a periodicity of either 5 or 7 days on which market activity is greater.

In the northern sectors of the region the markets meet on a 5-day cycle. This is primarily in the Tougon and Kougny sectors, and in some markets of the Dédougou and Nouna sectors. In the Solenzo sector, most markets meet on a weekly basis, even though there is sizable Mossi population that has immigrated here. The Mossi prefer a 3-day cycle, but this sector is based on the Bobo ethnic group's preferences.

Additionally, there are some areas in the Dédougou and Nouna sectors which have weekly markets.

3.3.2. Types of Marketplace There are 3 levels of marketplaces in the Volta Noire, the small bush market, the regional bush market and the central market. The differences among them are based on location, the quantity and quality of goods available, the numbers and types of intermediaries in the grain market, and volume of grain traded.

The small bush market is typically an interior (i.e. not near a main road) market serving two or possibly three villages at the most. It is an exchange point of agricultural produce and crafts between small villages. The most common transactions are selling grain to buy spices or prepared foods. There are few consumer goods available in these markets, but often one can find a bicycle repairman or even a moped repairman there.

In the grain trade the only intermediary regularly found in the small bush market is the retail vendeuse. Generally, there are only two or three vendeuses in the small bush markets as the volume of grain transactions seldom exceeds several kilograms.

The grain marketing season in the small bush markets is not very long. While there is grain available year round, it is only for several weeks after the harvest when quantities are relatively abundant.

Regional bush markets are located along a vehicle roadway, although access to them during the rainy season may be difficult. These markets service three or four villages as well as several small bush markets in the area. Physically, the regional bush market is divided into sections centering around a core of vendeuses and producers selling loose agricultural produce. In regional markets there is usually a restaurant serving rice and sauce along with bottled beverages, and an auto-park where on market day one can find regular transportation services to and from the areas' major centers.

There is a variety of consumer goods available in these markets, such as food items, clothing, electrical goods, and transportation services. Food items include: coffee, concentrated milk, sugar, sardines, and biscuits; in addition to batteries, soap, cigarettes, and worry beads. Clothing consists of used items brought in from the U.S. by "rag men" who purchase them from American thrift houses such as Goodwill and the

Salvation Army. Moreover, in some of these markets radios and tape recorders as well as bicycles and mopeds are sold and repaired. The vendeuse and the local assembler are two major intermediaries for producer grain sales in the regional bush markets. Transactions are largely with the louche or tine. They occur either in the central part of the market or on the road leading to the marketplace. In some of these markets, large-scale regional merchants or traders can be found. In addition, there may be national traders that pass through these markets on some market days to buy grain and/or other goods. But, it is rare to see the largest of such traders, unless the volume of grain is extremely large.

In the regional markets, the grain marketing season is normally year round. Large-scale grain sales usually peak in December or January after rising strongly in the post-harvest period. The remainder of the season is dominated by small-level transactions, especially with the vendeuse. In some surplus markets, there is a resurgence of large-scale activity before the next planting season starts, as producers need money to prepare their fields.

Central Markets. Many central markets are daily markets, but are not exclusively so. Central markets are typically in either urban centers or on major roadways crossing the region. In some cases they are also in an administrative center. Central markets are bases for regional traders, and therefore, have restaurants and gas stations, as well as a Solvocom, the government retail store. All types of goods and services are generally available in these markets, from industrial goods to car repair facilities. These markets are also divided into sections, and typically have some permanent, lockable stalls.

The marketing season in the central market is year round, although grain purchases are primarily during the dry season. While there is a variety of intermediaries in the central markets, there are fewer small-scale producer sales in these markets. Vendeuses and local assemblers handle the uncommon, small-scale producer sales, and regional traders buy only bulk quantities of grain. Producers trading in these markets do so in pre-bulked quantities they have brought to sell directly to the regional traders.

3.4 THE MARKETING SYSTEM

The grain marketing system consists of the private and public sector's channels for grain sales. In the Volta Noire the private system accounts for approximately 80 percent of the grain trade. It is based on a variety of transactions through many different intermediaries. The official grain marketing system is equally complex. There, too, grain may flow through a variety of intermediaries before reaching the official grain marketing board. In addition, both the private and public sectors' grain marketing systems differ considerably between the surplus and deficit areas of the Volta Noire. Producers and traders alike choose different marketing tactics in the different areas of the region. This section will describe the private and official marketing systems and summarize the major differences in these systems between the deficit and surplus areas of the Volta Noire.

3.4.1. The Private System. For the producer, there are two private marketing avenues, either in the village through the agent or broker, or in the marketplace. In the marketplace, the producer has a choice of intermediaries, depending on the quantity of grain for sale and his/her own preference. At the lowest level he/she may choose the vendeuse, then the local assembler, and finally some wholesale trader. There is also the possibility for sales directly to other producers or consumers. These sales occur primarily in the village or between villages. Figure 3.1 summarizes the general producer sales channels for grain in the Volta Noire, which are outlined below.

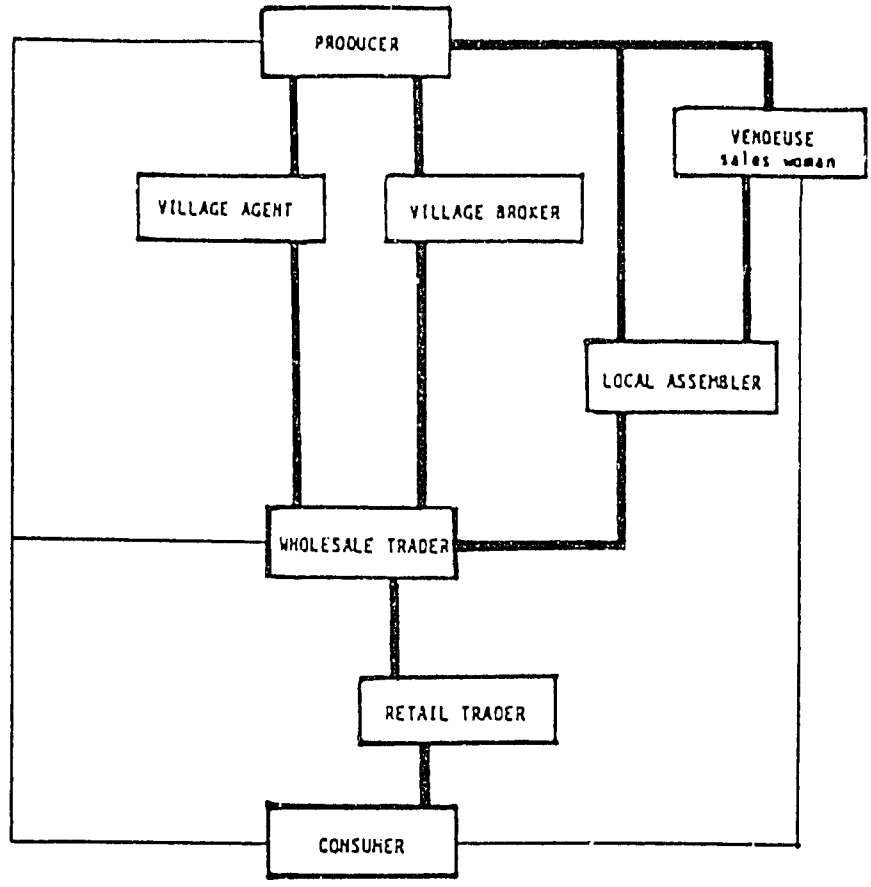
Private Marketing channels:

1. Producer, Consumer
2. Producer, Vendeuse, Consumer
3. Producer, Assembler, Wholesale Trader, Retail Trader, Consumer
4. Producer, Village Agent, Wholesale Trader, Retail Trader, Consumer
5. Producer, Village Broker, Wholesale Trader, Retail Trader, Consumer
6. Producer, Wholesale Trader, Retail Trader, Consumer

Transactions at the lowest levels of the marketing chain are generally of small quantities between women members of the household. Women obtain grain by removing small quantities from the daily family allotment. After several weeks the women can accumulate several

Figure 3.1

PRIVATE GRAIN MARKETING SYSTEM



Indirect channel

Direct channel

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

kilograms of grain which is sold in order to buy other household goods such as spices and condiments. Because women prefer dealing only with other women, these sales are made with the vendeuse or other women in the village.

Large-scale transactions directly between producers and consumers of the same or neighboring villages occur primarily in the rainy pre-harvest season. At this time, it is often difficult for traders to operate in the rural marketplaces as the weather conditions hamper traveling in the

bush. As such, producers still looking to make grain sales at this time, must find outlets closer at hand. Many larger producers in fact, save their grain for village sales rather than sell it to traders earlier in the season. They find the prices are higher and the marketing cost lower when selling grain directly to consumers in the village during the pre-harvest season. In addition, these producers believe in a traditional obligation to assist their fellow villagers.

The most common marketing levels in the Volta Noire are levels three and four. Most sales at this level are more than a tine, sixteen kilograms, and are made by the producer himself. In addition, the primary sale is generally made to a commissioned agent, who is buying grain for a long distance trader. In this way, the trader collects only wholesale quantities of grain and does not have to spend time in the bulking processes.

Transactions through levels 5 and 6 must await the arrival of the long distance traders. In level 5 the broker does not operate alone. Rather, he arranges transactions with fellow villagers before the trader arrives to facilitate the trader's job. Moreover, the large, wholesale trader buys directly from the producer only in those markets and villages in which he knows he can assemble wholesale quantities of grain rapidly. The wholesale traders' desire to accumulate grain rapidly is reflected in the higher price they pay for wholesale quantities. In some cases, producers with small quantities of grain to sell purchase additional grain from fellow villagers in order to obtain the higher wholesale price for their grain.

3.4.2 The Public Sector

The official grain marketing system in Burkina Faso is run by the Office Nationale des Céréales (OFNACER), the government's grain marketing board. OFNACER was created in 1970 under the conventional wisdom, of both the Burkinabè government and donor agencies such as the Agency for International Development. At the time, the perception was that wide fluctuations in seasonal market prices created excess profits for grain merchants. To remedy this, OFNACER was founded with a mandate to stabilize grain prices, protect producers and consumers from presumed

exploitation, and to smooth out regional grain imbalances through management of cereal stocks. As a result of the drought in the early 1970's, OFNACER became more concerned with food aid distribution and consumer price stabilization. But in the early 1980's, attention was again focused on the producer, through the farm level grain purchasing campaign.

During the campaign, OFNACER seeks to purchase between 20,000 and 35,000 tons of grain in all of Burkina Faso. The campaign lasts from November to March and annual grain prices and quotas are set before the campaign starts. Sources at OFNACER do admit however, that planned purchases for the campaign are based not on any analysis of expected production or prices, but rather on the previous year's experience in the campaign. As a result, the campaign often falls short of its planned goals. In the 1982/83 season 29,000 tons were planned for all of Burkina Faso. In the end only 25,000 tons were accumulated. For the Volta Noire the campaign was not unsuccessful, falling only 600 tons short of its goal of 10,000 tons. This led OFNACER planners to budget 9,500 tons for the 1983/84 campaign in the Volta Noire. This plan however, did not take into account the significant decline in production for that year, and sales to OFNACER as a result have been lagging. By the beginning of March 1984, only 4,000 tons had been accumulated in the Volta Noire.

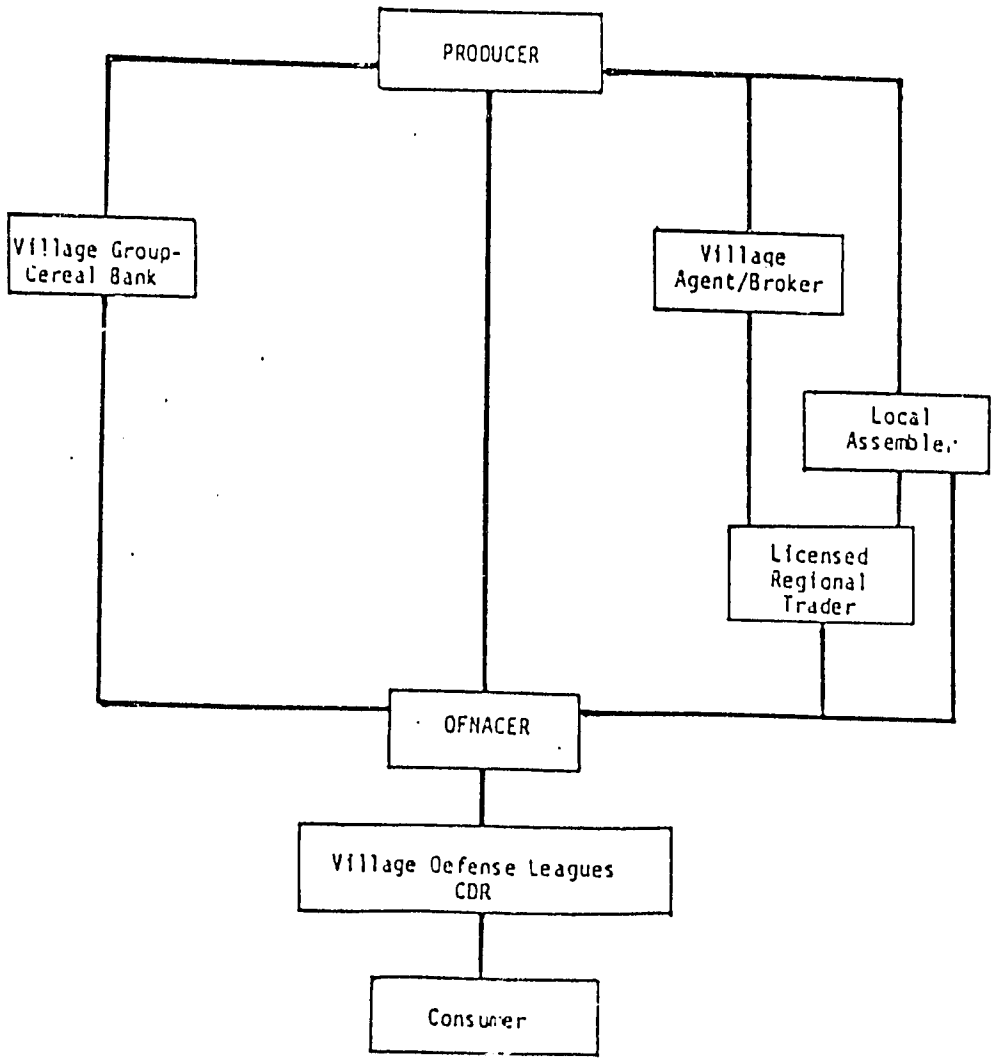
OFNACER uses the grain purchased under the campaign to alleviate critical shortages in the deficit areas. OFNACER sets a national selling price and regional quotas for sales. In this way OFNACER can elevate prices for producers in the surplus zones, and reduce those to consumer in the deficit zones.

Until the 1983/84 season, the buying campaign included village collective groups, OFNACER agents and private traders. Each was able to buy and sell grain for the campaign. In turn, OFNACER set fixed per kilogram commissions for these different intermediaries. After August 1983 though, only licensed private traders could participate in the campaign, and OFNACER agents could only trade grain through the newly formed Village Defense Leagues (CDRs). Moreover, the entire grain trade, both public and private, became subject to OFNACER's official buying and selling price.

The official grain marketing system utilizes elements from both the private and public sectors. In cooperation with Regional Development Agencies (ORDs), OFNACER distributes money to the village groups so that they may purchase grain directly in the villages as agents for OFNACER. Additionally, OFNACER has licensed some merchants to act as middlemen for the buying campaign. The organization of the official campaign can be seen in Figure 3.2.

Figure 3.2

OFFICIAL GRAIN MARKETING SYSTEM



University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

There are several paths of transactions in the official grain marketing system. They are as follows:

1. Producer, Groupement Villagois[4] (village groups), OFNACER
2. Producer, Assembler, OFNACER

2a. Producer, Assembler, Licensed Trader, OFNACER

3. Producer, OFNACER

Most grain sales in the official system run through levels 1 and 2a. Producers sell grain directly to the village groups as if they were a village agent or trader under the private system. Likewise, sales to assemblers are similar to those in the private system. However, in this case the assembler or the licensed trader has the added alternative of selling grain to OFNACER. The merchant usually transports the grain to an OFNACER collection point himself. But when dealing in large quantities of grain, in excess of one ton, OFNACER will come to collect the grain directly from the merchants.

OFNACER sets the buying price for grain purchased under the campaign, and in the 1983/84 season that price was extended to the private sector as well. The 1983/84 buying price was 66 FCFA a kilogram for millet, 64 FCFA for white sorghum, 65 FCFA for red sorghum and 60 FCFA for maize. These are prices paid to producers by either OFNACER or its agents. Village groups and merchant middlemen cannot charge OFNACER more or pay producers less than the official buying price. Grain purchased both in the villages and through the merchant middlemen is brought to the warehouse in Dédougou, from where it is resold to local consumers or shipped to other cities in and out of the region.

OFNACER cannot sell grain directly to the public. The sale of grain is the responsibility of the Village Defense Leagues (CDR). The CDR's were organized after August 1983, in order to galvanize public support for the revolution. Their intervention in the grain marketing system is designed to screen buyers, to prevent traders from buying OFNACER grain to resell at higher prices.

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[4]Groupement villagois are the producer collective organizations set up by the Regional Development Authority (ORD) in Burkina Faso.

3.5 MAJOR FLOWS OF GRAIN IN THE VOLTA NOIRE

The national estimate of grain sold by farmers is 20 percent of production. Seventy to eighty percent of sales are handled by the private sector. The 20 percent commercialization rate seems to approximate that for the Volta Noire, although it may be somewhat higher in the Southern sectors of the region. As such, approximately 45,000 tons of grain is commercialized in the region. Of this, 8,000-10,000 tons is either sold to OFNACER, or is sold intra-regionally. The remainder is exported from the region.

Data on the volume of grain flows is difficult to obtain. As a result, volume estimates have to be derived from qualitative interviews with national and regional traders. During the interviews, both the number of traders dealing in a particular region or marketplace and their average capacity were solicited. From these data, estimates of grain flows and their relative magnitudes can be extrapolated.

The majority of grain exported from the Volta Noire flows towards Ouahigouya and the Sahelian Zone. Informants estimate the total volume of grain flowing between the Volta Noire and Ouahigouya to be 10,000 to 15,000 tons, depending on the year; this figure does not include private grain transfers and petty commerce trade.

The other major destinations of grain exported from the Volta Noire are the markets in Bobo-Dioulasso, Koudougou, and Ouagadougou. Estimates of this grain flow range between 7,000 and 10,000 per annum.

The grain trade with Mali has all but stopped from the Volta Noire. In the past few years no major grain flows have crossed the border. There is some smaller activity along the border, however, between neighboring villages on either side. The uppermost estimates of this activity are 2,000 tons annually. At one time the trade with Mali was the major outlet for cereal from the Volta Noire. However, the border conflict on 1974, as well as changing patterns of distribution in both Mali and Burkina Faso have eroded much of this trade.

3.6 CHAPTER SUMMARY

The grain marketing system in the Volta Noire is quite varied. Producers have the choice of selling grain to village level or marketplace intermediaries. Although, the opportunities to do so vary throughout the region, since trader activities differ among the different levels of the marketing system and between surplus and deficit areas of the region. Some traders have limited capacity to buy large quantities of grain and can only purchase a few kilograms of grain per market. In addition, there are merchants who purchase grain only at certain times of the year, and prefer only bulk quantities of grain. The effect these differing patterns of trade have on the producer as well as on the efficiency of the marketing system is discussed in the following chapters.

CHAPTER FOUR

PRODUCER GRAIN MARKETING PATTERNS IN THE VOLTA NOIRE

INTRODUCTION

It is wrong to assume that producers have few alternatives in marketing staple food grains in the Volta Noire. In the past, the assumption based on conventional wisdom, was that producers could not choose when, where or how to market their grain. These choices were said to be dictated to them by their household situation as well as by the marketing system. The underlying theory was that because of indebtedness and lack of on-farm storage capacity, producers were forced to sell much of their grain production at low post-harvest prices. This situation would be exacerbated by the limited marketing alternatives available to producers. As a result, policy makers deemed the private grain marketing system wholly inadequate in meeting producer needs for efficient marketing outlets, and recommended its substitution with an official grain marketing system. In actuality, this scenario is far from reality, particularly in the Volta Noire.

In the Volta Noire, producers are not severely co-opted into selling their grain at inferior prices. Although producer sales are concentrated in the immediate post-harvest season, there is little to indicate that these sales are made without choice. On the contrary, producers in this region do have several marketing alternatives with regard to crops, markets and intermediaries, and to some extent timing of sales. This chapter presents a summary of these alternatives. Nevertheless, at the outset it is important to present the following caveat. Much of the previous analysis of producer choice is based on assumptions presented in portfolio theory. These studies analyzed the range of alternatives available to producers in order to determine the most economically efficient ones. This analysis however, is not based on a strict portfolio approach. Rather, producer alternatives are analyzed on the basis of the different economic and institutional criteria which are valued in the traditional setting above those criteria that are the

basis for portfolio analysis. Producers in developing countries make decisions about grain marketing not only on the basis of economic performance, but equally important on the basis of traditional social values and customs. These factors play an important part of this analysis.

This chapter presents a summary of producer grain marketing patterns. The analysis concentrates on producer choice with regard to storage patterns, crop sales and marketing alternatives. The major conclusions of this chapter are as follows:

1. Producers are not forced to sell grain from a lack of on-farm storage capacity. There is an adequate supply of storage facilities available to the producer, and the cost of constructing new ones is not prohibitive.
2. Producers can sell a variety of goods in addition to grain, in order to raise needed cash. In most areas of the Volta Noire producers can choose among cash crops, animals, and grain as a source of household cash.
3. Producers are not tied to any single trader. There are few financial or social obligations that bind producers to selling their crop to a particular merchant. Moreover, producers have access to information on market conditions and exercise a great deal of choice in their selection of markets and intermediaries, and in the timing of sales.

4.1 STORAGE PATTERNS

Most producers in the Volta Noire have the capacity to store grain in excess of one year. In some areas of the region farmers can store grain up to six years and more. This fact contradicts the belief that on-farm storage capacity is inadequate for current production. As such, farmers have greater choice with regard to timing of grain sales, and can take advantage of higher late season prices for grain.

The major form of grain storage in the Volta Noire is in mud or mud brick granaries. Farmers move their grain into storage immediately after harvest. Often they do not even thresh the grain before it is stored, so

as to preserve its freshness longer. In this case, the grain is threshed only after being removed for daily consumption or for sale.

In many villages of the Volta Noire producers attempt to hold some of this grain until the following harvest. Through either purchases of grain or consumption of its substitutes, these farmers try to reduce the use of their own farm stocks. Once the next harvest is underway, this grain is either sold or consumed by the household. Producers claim this practice provides some insurance against a poor harvest during the following year.

Storage granaries are visible in every village throughout the Volta Noire. Many household compounds have at least two or more of these granaries with a capacity of approximately two tons of grain. Moreover, if the granaries are full, farmers have the option of storing grain elsewhere or building additional granaries. Additional storage capacity can be obtained by threshing the grain and storing it in sacks in the producer's house or storing the unthreshed heads of grain on the roof of the house. In addition, it is neither difficult nor costly to construct a new granary. Most farmers can build a mud brick granary themselves. They estimate the cost of a new mud brick granary to be between 8,000-9,000 FCFA or the equivalent of 20 dollars,[1] and they can last about 15 years.

In some of the lower surplus areas of the Volta Noire, where production yields are more erratic, some producers are in the habit of building long-term stocks of grain. These farmers store grain from years when the rains were good in the belief that grain from these years is much heartier and lasts longer than grain harvested in a poor year. This grain is sealed into a granary and stored for either a special occasion or an emergency. In emergencies, the household would have to exhaust all other options to buy or obtain food before opening this granary, because these producers believe it is much better to consume the current poor

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[1]The estimated cost breaks down as follows:

Wood	3000
Bricks	2500
Window	2000
Straw	3000
Plus labor	

harvest before eating grain that is stored from a good year, even if it means buying additional quantities of grain.

There is an ethnic distinction to producers who have long-term stocks of grain. In most cases, only the Dafing (Marka) tribe in the northern sections of the Volta Noire have long-term grain stocks. The Dafing rarely sell grain, preferring to sell other products or goods to raise cash. While there are many Mossi tribesmen in these areas, the Mossi prefer to buy animals or other transportables, rather than store grain. This is due to the Mossi belief that even though they have been settled in the Volta Noire for many years, they are strangers in the region and may be forced to move out on short notice. As such, they prefer to keep transportables rather than immobile goods, and therefore, do not engage in the practice of long-term storage.

Nevertheless, there is every indication that on-farm storage capacity is not limited in the Volta Noire. Thus, producer decisions with regard to timing of sales are not constrained by limited storage capacities, allowing farmers to take advantage of better marketing opportunities later in the season.

4.2 CASH CROP, ANIMALS, AND GRAIN SALES PATTERNS

Producers in the Volta Noire are generally reluctant to sell grain as a source of household cash. Unless there is a relatively large surplus, farmers attempt to raise cash by selling cash crops or artisan goods, and through off-farm labor. This is especially true in the more surplus areas of the Volta Noire, but is also the case in the northern deficit areas as well. In the northern areas though, producers alternatives to selling grain are somewhat limited. This section presents a summary of producer preferences with regard to cash raising activities. Included in this discussion is timing of grain sales, farm product alternatives, and off-farm activities. The purpose of this summary is to demonstrate that producers have a wider variety of alternatives to grain sales than previously thought. In other words, they are not necessarily forced to sell grain immediately after the harvest, even though they may choose to do so.

4.2.1 Timing of Sales

In a good harvest year, the grain marketing season lasts from September through March, with most of the sales concentrated in December and January. This season is primarily for larger quantity transactions being assembled for export from the region. For local retail transactions, the season is almost year round, generally being interrupted during the harvest season.

The length of the selling season depends on the available surplus of grain and the alternatives available to producers. In the high surplus areas of the Volta Noire, in the Solenzo, and Boromo sectors, and parts of the Dédougou and Nouna sectors, the selling season is longer as farmers sell other goods before selling grain. Moreover, the season can start earlier in these areas, perhaps even before the harvest begins, as producers may sell off the remaining stocks from the previous year's crop. In contrast, producers in the more deficit areas have few alternatives to selling grain. As a result, most of their large-scale grain sales are concentrated in a relatively short period immediately following the harvest.

In years when the harvest is less than adequate, producers are more cautious with grain sales, preferring to sell only small quantities of grain over a longer period. As such, the entire trading pattern changes as does the marketing season, resulting in a longer and more period of grain trading.

4.2.2 Farm Product Alternatives

The length of the grain marketing season is often influenced by the farm product alternatives farmers have to selling grain. The major alternatives available to producers in the Volta Noire are sales of cash crops, animals, and handicrafts produced by the farmer. However, the range of these alternatives varies from the surplus to the deficit areas of the region.

In the southern, more surplus areas of the region farmers can sell cotton, rather than grain, to raise cash early in the season. In these areas, producers prefer selling cotton in November and December, and

grain in February and March. But the delays in the official cotton collection program force farmers to sell grain earlier than planned in order to pay off their cotton planting debt. Some farmers have compensated for the delays in the cotton collection program through the purchase of goods on credit against their future cotton sales.

In addition to cotton sales, producers in the southern areas of the Volta Noire, as well as in other areas, can sell other cash crops instead of grain. Depending on the marketing conditions for cash crops such as ground nuts, shea nuts and sesame, producers prefer to sell these crops before selling grain, but the prices received depends on the export markets for these crops. Recently, shea nuts and sesame exports have stagnated, causing producer prices for these products to fall, and in turn, leading to a deterioration in the local marketing conditions for these crops.[2]

Another alternative to grain sales is the sale of livestock. For the commercially minded producer, the livestock trade is an important source of income. Often these farmers are the Mossi residents of the Volta Noire as discussed above, and some of the wealthier producers of the region. Livestock trading is not the practice of the average peasant in the Volta Noire.

Producers trading livestock sell grain in the pre-harvest period and buy mostly small ruminants or poultry. In some rare instances one can find producers buying large animals for animal traction. All animals are kept as an investment, and sold only when the producer has a large cash need such as for a wedding, funeral, or household emergency. In addition, some producers spoke of selling animals up to the point when the price of the animal begins to decline relative to the price of grain. In other words, producer livestock trading practices may follow some sort of grain/livestock price ratio, although the exact relationship was not studied. Thus, with some of the wealthier farmers, animal sales can be an alternative to grain sales for producer cash needs.

Other alternatives to grain sales may be the sales of artisan goods or off-farm labor. Producers often make certain items for sale in the

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[2]See FAO summary of exports in Monthly Bulletin of Statistics, Vol. 6, No. 12, December 1983. p.42.

local markets. These products include, baskets, bowls, fabrics, mats, and other household durables. These items are produced largely in the off-season and can replace the sale of grain as a source of household cash, but only later in the season.

Some producers also perform some off-farm labor either locally or in the Ivory Coast. In most villages of the Volta Noire there is at least one griôt or animist priest. The griôt performs certain ceremonies that have remained even if the village has converted from animism. For the griôt, the reward for these services is an important source of income. In addition to the griôt, the village may have an Islamic master who teaches young children the Koran and writes charms for members of the villages. These charms supposedly aid the villagers in their work or family life. For writing these charms, the Islamic master is rewarded by the villagers. Some Islamic masters though, have a following that extends beyond their village, and have become quite wealthy and influential as a result.

Finally, many producers in the Volta Noire spend the off season or even several years in the Ivory Coast working in the plantations or in the light industries of Abidjan or Bouake. These producers are generally younger heads of households, under 30 years of age. By traveling to the Ivory Coast they hope to earn additional income and reduce the quantity of on-farm grain consumed. In many cases though, when these producers return for the planting season, they sell some of their surplus grain stocks at high pre-harvest season to pay for production inputs. These off-farm sources of income allow the producer to make needed cash purchases without selling grain at lower prices.

In summary, producers have several alternatives to selling grain. These include the sale of cash crops, livestock, and artisan goods as well as off-farm labor income. Although problems such as those outlined above exist with all these alternatives, producers have nevertheless found them invaluable in raising their income and reducing their dependency on grain sales. While they may have reduced their dependency on grain sales they have not eliminated it. Thus, even though these alternatives do exist, producers continue to rely on grain sales as a major source of income.

4.3 ALTERNATIVES WITHIN THE GRAIN MARKETING SYSTEM

As grain sales are critical to the income of the producers, it is important to analyze the options that farmers have within the marketing system. This section presents a summary of this analysis for the Volta Noire. The analysis covers the range of alternatives the producer faces with regard to grain variety, markets, intermediaries and terms of transactions. In addition, this analysis includes a discussion of the way producers in the Volta Noire make decisions in grain marketing.

4.3.1 Variety of Grain Marketed

Producers prefer to sell only the most abundant variety of grain. Large-scale grain transactions, those in excess of one tine (sixteen kilograms) will be for the most abundant variety of grain, while the minor varieties will be sold only in small quantities and generally for local consumption. This reflects the producer's desire to guard his minor crop, as well as the desire of the merchant to trade only in large quantities. With sorghum being the most abundant variety in the southern sectors of the Volta Noire, it is also the most marketed one in those sectors. Likewise, millet is the primary marketed variety in the sectors in which it is most abundant.

In the southern sectors of the Volta Noire sorghum is most often sold to assemblers and millet to the local vendeuse. Traders looking to assemble grain buy sorghum in large quantities from the producer. In these areas, producers avoid selling millet because of the small quantities produced. They prefer to save it, in order to prepare special foods for the Moslem holidays with it. However, if they do choose to sell millet they will generally do so in small quantities, immediately before these holidays, when the demand for millet is greatest.

In contrast, in those areas where millet is more abundant it is the dominant traded variety and sorghum is saved. In this case, though, sorghum is saved not only for its taste, but also for its durability. Producers claim that sorghum stores better than millet and is therefore preferred for long-term storage. In addition, sorghum is the preferred grain for brewing dolo, the local beer. As such, in the millet abundant

areas producers often travel to sell their sorghum at a premium to the dolo brewers.

4.3.2 Market/Intermediary Alternatives

Producers' alternatives with regard to markets and intermediaries depend on the quantity of grain being sold. Producers selling large quantities of grain have fewer opportunities to sell grain in the small bush markets. Yet, small-scale transactions in the large markets are at terms generally unfavorable to producers. As such, producers selling major quantities of grain prefer to do so in the larger markets or with the higher level intermediaries. But they may have to travel far to reach them. Similarly, in making small-scale transactions producers prefer using smaller markets and intermediaries in order to obtain better pricing for their grain.

For small-scale transactions, the producer prefers the lowest levels of intermediaries and the smallest markets. While the larger marketplaces are more suitable for large-scale grain transactions, producers find it is easier and more profitable to sell small quantities of grain in the smallest markets or at the lowest levels of the marketing system. For transactions of only a few kilograms, the vendeuse or the small assembler is preferred, because these intermediaries employ small measuring units, either the louche or the boite. These measures are considered more precise in measuring small quantities of grain. In contrast, traders and larger assemblers measure grain with the tine, and for quantities of grain less than a tine they often pay disproportionately lower prices. Thus, by selling to the smaller intermediaries using the smaller measuring units, the producer believes he is gaining a higher per kilogram price than with the larger trader.

In order to sell large quantities of grain, producers have to find a market capable of handling such volume. The size of large-scale grain transactions in the Volta Noire varies in size between the surplus and deficit areas. In the surplus areas these transactions average between two and three tines (32-48 kilograms) per transaction for an average sales total of two sacks (200 kilograms) per year per producer. In the deficit areas this average is far less, generally one tine (16 kilograms)

per transaction and perhaps a total 50 kilograms per farm are marketed each year. Most lower level grain merchants though, are incapable of handling a transaction of this volume. The vendeuse, who is the lowest level intermediary, does not have sufficient cash resources to purchase one tine of grain. As such, producers selling these quantities of grain must find markets with intermediaries capable of purchasing these larger quantities. Often this means transporting the grain to the nearest regional bush or central market in order to sell it. In some areas, producers may find agents or traders working with brokers buying large quantities of grain in the village. When this is the case, producers have the choice of transporting the grain to the most accommodating marketplace or selling the grain in the village to the agent or trader.

In addition to the choice of markets, when selling larger quantities of grain, producers may have the option of choosing among several merchants. In general, the producer in the Volta Noire selects the merchant to whom he sells his grain on the basis of his own marketing cost as well as his relationship with the merchant. When selling larger quantities of grain, a producers will usually try to find a merchant close to his village, if not within the village. Producers complain about the difficulty and high cost of transporting grain to the market. For large quantities, the producers must use a donkey-cart. If they do not own one, they must rent one. In addition, they need to pay someone to help load and unload the grain in the village as well as in the market. Moreover, if the producer transports the grain with a bicycle or moped he may be forced to pay a license fee on the cycle when entering the market. As such, to avoid these difficulties and costs, the producer will attempt to find a local outlet for his grain before venturing to the marketplace.

In the village he may have the choice of selling the grain to a village agent or a trader operating with a broker. However, both the agent and the broker are not viable options in the later part of the selling season. Once the agent has exhausted his funds he no longer solicits purchases for the trader, even on credit. With regard to the distant trader operating with the broker, he may only come to the village once and this is usually in the immediate post-harvest season.

While the formal intermediaries do not operate in the village late in the season, producers with significant quantities of grain may still find selling opportunities with consumers in the village. A producer whose harvest was poor or who has an irregular demand for grain will purchase grain in or near his village for the same reason as a producer who prefers to sell in the village. In several areas there are producers who never sell their grain to outside merchants. They prefer to hold their grain in order to sell it in the village to poorer villagers.

If no outlet for large quantities of grain is available in or near the village, the producers must then turn to the marketplace intermediaries to sell their grain. In this case, producers generally sell their grain to a trader with whom they have some sort of relationship. These relationships, are generally not based on any financial obligation on the part of the producer, however, they may facilitate credit transactions at some time. These trader-producer relationships are based on mutual confidences built over a period of time. Producers prefer selling to traders who have long been established in the marketplace. In addition, they continue to sell to a particular trader because they trust the accuracy of his measuring units. As there is no effective standardization of weights and measures, traders attempt to manipulate the price by over-filling the measuring unit or making it somewhat larger. Producers choose and stick to merchants who do not continuously alternate among measuring units. This is also the reason for the long-distance traders' need for the village broker. The broker is known to the producer and establishes some confidence between the producer and the long-distance trader.[3]

Producers also prefer local traders who will keep some grain in the area and can provide grain even on credit in the event of an emergency. Long distance traders transport the grain they buy out of the region, and more importantly out of the producer's immediate area. But the local trader retains some grain in his operating area to resell during the

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[3]See Herman 1976 for a discussion of broker/intermediaries in the Burkinabè livestock trade.

pre-harvest period.[4] Moreover, the local trader allows these grain sales to be made on credit, although he generally prefers not to.

From the study in the Volta Noire it is difficult to conclude that producers are forced into trading relationships on the basis of financial obligations. While use of credit is widespread, few producers who obtain credit on a regular basis could be found. There is no widespread, regular system of credit or advanced sales of grain by producers in the Volta Noire. Moreover, traders are reluctant to give more than five thousand FCFA worth of credit against grain sales because of the likelihood of default. Many traders claim a high rate of default on these loans and are therefore reluctant to offer them on a regular basis. When credit is offered though, it is for a limited sum and is generally provided to maintain the trader-producer relationship.

The trader-producer relationship, while not being coercive does reduce the financial gain to producers, but this is made up by the other rewards the relationship provides. Both traders and producers admit the prices received for grain purchased under the trader-producer relationship may not always be the highest or the actual market price. The trader may exercise some leverage on the basis of this relationship. However, producers are careful not to allow the trader to take too much advantage of them as a result of the relationship. The producer is ready and able to switch to another trader, if the first trader attempts to really take advantage of him. Moreover, producers feel that the slight price advantage the trader takes is justified because of the service he provides. The trader is always available for the purchase and sale of grain. He also stores grain, tying up capital, and at times provides credit to the producer. As such, the producer and the trader, believe that the added price benefit is to cover the cost of these additional services.

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[4]The same patterns of producer sales are also seen in sales to OFNACER. In some areas, producers choose not to sell to the <u>groupment villagois</u> (village group) because they export the grain out of the region through OFNACER, and leave no emergency stocks in the village.

4.4 CHAPTER SUMMARY

The general pattern of producer grain marketing in the Volta Noire demonstrates that producers have several alternatives to selling grain, and make an effort to obtain the most favorable terms of trade. Moreover, it seems that producers make calculated decisions about price, by choosing among several alternatives in regard to variety of crop sold, and choice of marketing outlet. Sometimes, however, their decisions prove to be wrong and they may not receive the best possible price for their grain, but these setbacks are not inherent in the marketing system and are generally corrected. Nevertheless, while the producer may be making rational decisions, the marketing system may not be fulfilling its function of efficiently moving the surplus from the producers in the Volta Noire to the deficit regions and urban centers of Burkina Faso. In addition, while producers may look for better opportunities, traders may collude to prevent these benefits from accruing to the producers. These aspects of the marketing system are analyzed in the following chapters.

CHAPTER FIVE

MARKET COMPETITION

INTRODUCTION

Grain marketing systems operate efficiently when individual markets within the system are perfectly competitive. Pure competition implies that there are a large number of buyers and sellers in the marketplace, and all are acting independently and impersonally. In addition, no one individual or group can act to control the market and influence prices. This allows price changes to be reflected throughout the system and for an efficient allocation of resources.

A structure, conduct study of the grain marketing system can be used to determine whether the markets of the Volta Noire are perfectly competitive. This analysis includes the study of market concentration, barriers to entry and product differentiation, as well as market power. Market concentration refers to the portion of market sales the largest firm or firms control. Under ideal conditions of perfect competition the market share of the largest firm is no greater than that of the smallest firm. Deviations from the conditions of perfect competition occur when one or several firms can dominate the market, creating monopsonistic or oligopsonistic situations. Under these conditions, the dominant firms may act to influence prices, and cause distortions in the market signals.

Barriers to entry are the natural and imposed forces that can limit competition in the marketplace. In the grain marketing system of the Volta Noire such barriers are based on economic and institutional factors. These barriers include availability of capital and trader associations.

Product differentiation refers to the innate qualities of a product that distinguish it from another. In the grain market, quality differences such as these are based on size, age, and the regional environmental variations that affect taste preferences. In addition, product differentiation can occur when traders attempt to distinguish their product or services from others through unique marketing techniques. Shifting weights and measures, and offering credit and transportation services are the major forms of this differentiation found

in the grain markets of the Volta Noire.

These three elements, market concentration, barriers to entry, and product differentiation determine the market power that individual grain merchants have over producer-sellers and consumers. But our concern has only been on the producer-seller side. Monopsonistic traders, who restrain trade with imposed barriers and product differentiation can exert greater influence over producers in determining price. In turn, if the price is not up to the producer's expectations, the producer will most likely refrain from marketing his grain. As a result, the conduct of the monopsonistic trader can reduce the level of grain marketed by farmers. This chapter will analyze the markets of the Volta Noire in order to determine whether conditions that restrain trade exist or not. In general, the conclusions are as follows:

1. Market Concentration varies at different levels of the marketing system as well as between the surplus and deficit areas of the Volta Noire. Markets at lowest levels of the system are less concentrated than markets at higher levels. There are many more buyers of grain for small-scale transactions. But in the surplus area, the higher levels are less concentrated than in the deficit areas.

2. Availability of capital is probably the most critical Barrier to Entry to the marketing system. Other economic barriers include the Patente or annual trading tax, the daily market tax and trader associations. In addition, personal relationships between traders and producers serve as an effective barrier to unknown traders dealing in the market.

3. No Product Differentiation exists with regard to individual varieties of grain. But individual traders vary the size of their measures and offer different services to increase their margins and market share. In addition, the type and amount of services offered varies between the surplus and deficit areas.

4. As a result, Market Competition varies between the different regions of the Volta Noire, and throughout the marketing system. Traders have somewhat greater market power with regard to price formation at the village level of the marketing system and in particular in the markets of the deficit areas. The surplus areas though, are generally competitive, but some long-distance traders have been attempting to monopolize the marketplaces.

5.1 MARKET CONCENTRATION

Levels of concentration vary throughout the Volta Noire. In the

small bush markets producers can usually find a large number of lower-level intermediaries buying small quantities of grain. In contrast, there are fewer grain market intermediaries capable of purchasing large quantities of grain. As such, in some markets, primarily in the deficit areas, the large-scale traders can exercise monopsonistic control over the marketplace. Table 5.1 is a listing of the average number of grain traders found in some of the markets of the Volta Noire.

Table 5.1

AVERAGE NUMBERS OF TRADERS AND QUANTITIES TRADED PER TRADER IN THE MARKETS OF THE VOLTA NOIRE 1983/84

Marketplace	Type	Level of System	Number of Traders	Average Volume of Grain/Market
Highly concentrated Markets				
Gassan	Deficit	Wholesale	0-1	300 kg.
Tougon	Deficit	Wholesale	3	600 kg.
Tissi (village)	Deficit	Agent	2	9,500 kg.
Ban (village)	Surplus	Wholesale	1	30,000 kg.
Solenzo	Surplus	Assembler	2	150 kg.
Nouna	Deficit	Wholesale	2	300 kg.
Less Concentrated Markets				
Bena	Surplus	Wholesale	14	900 kg.
Djibasso	Surplus	Assembler	10	500 kg.
Djibasso	Surplus	Wholesale	7	1,200 kg.
Kouka	Surplus	Wholesale	8	1,000 kg.
Gassan	Deficit	Vendeuse	15	20 kg.
Gouron	Deficit	Wholesale	5	300 kg.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

As previously noted, producers looking to sell small quantities of grain prefer the lowest levels of the marketing system. This is due, in part, to the accuracy producers feel is conveyed in the louche or other small measures employed by intermediaries at this level. Equally important is the large number of small traders at this level, providing the producer with many different opportunities to sell small quantities of grain. There can be 4 or 5 vendeuses buying grain in the marketplace. The vendeuse also buys grain outside the marketplace, on the road leading to the market or in another village.[1] This is especially true in the pre-harvest season and in low production years when supplies are limited. To purchase grain in these times, the vendeuse must look harder for producers willing to sell even small quantities of grain, as many producers attempt to avoid selling grain when overall supplies are low.

In contrast to the large number of small traders in the grain markets of the deficit areas, there are few traders capable of making large-scale grain purchases. In the deficit areas, the village agent is the primary large-scale purchaser of grain. In addition, there are a limited number of large traders operating in the deficit areas of the region, but most of these traders deal only in the markets with a relatively large volume of grain or during the major grain marketing season.

In general, there is only one agent per village, and, in some cases, only one agent for a group of villages. In these areas, producers who want to sell several tines or more have no alternative but to sell their grain to these agents. Moreover, when more than one agent is available in the village, there is likely to be some price collusion among them, with the price of the more established agent being set as the buying price.

Another problem with the village agent is the limited duration to his buying campaign. The agent is provided a fixed sum of money by the trader. When those funds are exhausted the agent stops purchasing grain; he does not buy grain on credit. Some agents claim that they do not even ask for additional funds, even if there are available grain supplies in

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[1]This is one way the vendeuse can reduce her cost of operation. By making her purchases outside the marketplace and reselling the grain in the market as a regular seller she can avoid paying the daily market tax.

the village. This is because the agent fears the trader will think he was embezzling funds.

In some areas the producer can find small wholesale traders or assemblers buying grain in the marketplace. Some small wholesale traders from Ouahigouya deal in the fringe markets of the Kougni and Tougon sectors, where grain stocks are somewhat more plentiful. On an average marketday, there are 4 or 5 such traders in the marketplace. In addition, because of the producer's reluctance to deal with long-distance traders, the vendeuse usually intermediates between the two. As such, the vendeuse can generally negotiate a higher price from these traders.

At times, some of the smaller traders from Ouahigouya also purchase grain in other markets in the deficit region. During the height of the post-harvest selling season the trader may come to purchase grain in several marketplaces. However, these instances are rare, and the traders doing so, are usually the sole higher-level intermediary operating in these markets. Moreover, as single traders operating in the marketplace they are able to exercise monopsonistic control over the marketplace.

In the surplus areas of the Volta Noire, the village level trade is highly concentrated, but only during the immediate post-harvest season. At this time, a single long-distance trader, generally from Ouahigouya, comes to several villages in the region to buy large quantities of grain directly from the producer. Their practice is to avoid competing with each other, by purchasing grain in different villages. In addition, through higher prices, these traders attempt to exclude local traders from buying in the villages at the same time. The Ouahigouya traders attempt to gather large quantities of grain in a relatively short period of time. In addition, because of the higher resale price for grain in their home markets they can outbid local traders, and prevent them from buying some of their supplies. As a result, local traders refer to these traders as monopsonistic. However, the long-distance traders come to the Volta Noire only in the immediate post-harvest season when supplies are plentiful, and producers are selling large quantities of grain. After the Ouahigouya traders leave the area, producers must look to the marketplace to sell their grain.

In contrast, the wholesale traders from Bobo-Dioulasso have found the marketplaces an excellent source of supply for their markets of cash

crops and grain. Most of their grain purchases are resold at the wholesale level to traders from other urban areas, and cash crops are sold to exporters. The Bobo traders purchase a conglomeration of goods, in part, because the revenue from grain trading is not sufficient enough to keep them in the trading business. They do not trade grain in the same quantities as do their colleagues from Ouahigouya. As such, trading a portfolio of goods allows these traders to earn higher total revenues than with grain alone. This also allows them to compete more effectively for grain in the Volta Noire.

Competition among the long-distance traders in the region has served to reduce the market power of the regional wholesale traders. Jacqueline Sherman finds that in the grain markets of the Manga region of Burkina Faso the regional traders have sufficient market power to exclude the Ouagadougou traders from the marketplace. In the Volta Noire, the regional traders have no such power. This is probably because the grain trade in the Volta Noire takes place largely in the villages and outside the marketplace. The regional traders, whether in collusion or not, do not have the power to restrict this trade. They are further restricted from doing so by their limited capital resources. Thus, the level of concentration among the regional traders of the Volta Noire is rather low, but quite high in the case of the long-distance traders.

In addition, there is very little evidence of collusion among the large, long-distance traders operating in the Volta Noire. These traders come from different areas of Burkina Faso, and operate differently in the markets of the region. The Ouahigouya traders, looking to furnish a retail demand primarily, purchase large quantities of grain in the villages. On the other hand, the Bobo-Dioulasso traders, deal in the marketplaces mainly. However, some traders made reference to a practice of the Ouahigouya traders to avoid competing with one another in the same village. This practice is probably due to the high costs associated with developing a network of village brokers, as well as establishing a producer-trader relationship.

5.2 BARRIERS TO ENTRY

There are both economic and institutional barriers to entry in the

grain markets of the Volta Noire. Economically, the most serious barrier is the availability of capital. Few traders have sufficient capital resources to purchase large quantities of grain, and even then most have to turn over their stocks rapidly in order to recoup their funds. Those traders who are capable of large-scale purchases are generally the long-distance traders from outside the Volta Noire, as the regional wholesale traders and the large assemblers have more limited financial resources.

Capital requirements are high because of the need to advance large sums of cash to the commissioned agents who purchase grain. Since producers prefer selling grain only to known merchants, and traders attempt to reduce their level of activity in the bulking process, long-distance traders commission buyers to purchase grain for them. However, in doing so, the long-distance trader must advance the commissioned buyer enough funds to accumulate the desired quantities of grain. The long-distance trader usually hopes to assemble enough grain to fill a 30 ton truck. In the 1983/84 season the average buying price for a 100 kilogram sack of grain was approximately 6,500 FCFA. As such, in order for a trader to accumulate enough cereal to make renting a truck worthwhile, he would have had to advance the commissioned buyer more than 1.9M FCFA (equivalent to almost $5,000). This does not include the commission to the buyer, the cost of transportation, or the handling fees.

It is very difficult for smaller traders to raise capital in the Volta Noire. Most regional merchants buy grain with personal funds or those provided by long-distance traders. If substantial commissions can be earned from transactions for the long-distance traders, then the local merchant can borrow against his own commissions to engage in his own trading. However, if this is not the case, he has several other potential sources of capital. Many regional grain dealers in the Volta Noire inherited their operations from their families or the earlier Lebanese merchants. Many of these traders have maintained relationships with their mentors in order to borrow funds to finance their activities. Moreover, most of the large regional wholesale traders engage in other activities in addition to the grain trade. They deal in a variety of cash crops, or own businesses in and out of the realm of trade. With the returns and assets from these activities, the trader is able to obtain

credit from the local banks. These banks are branches of the BIV, Burkinabè bank, and the BICIA which operates in several West African countries.

However, due to the risks involved in grain trading, there is a limit to the amount of borrowed funds these traders are willing to devote towards this operation. They claim, because of uncertainty about price and the reliability of commissioned agents, it is difficult to recoup funds invested in the grain market. Therefore, they are reluctant to extend themselves too much in the grain trade.

For smaller traders the option of obtaining formal credit is not available. To borrow funds they must look to their families and close relations. But some small traders can obtain goods on credit from wholesalers and use the proceeds from the sale of these goods to buy grain. The small trader though must be extremely trustworthy for the larger trader to do so.[3]

Other economic barriers include the market tax (paterte) and the trade association. The market tax is both a daily fee for operating in a certain marketplace and a regional (sous-préfecture) levy for trading in the region. Smaller traders, such as the vendeuse and the assembler trading in one marketplace pay only the lower tax, 10 to 25 FCFA (three to seven cents) per market day. Larger assemblers dealing in more than one marketplace pay the additional annual fee. This tax varies between 5,000-10,000 FCFA/year depending on the number of markets and the volume of grain traded.

Many merchants though, avoid the market tax by trading outside the marketplace. The vendeuse buys grain on the road leading to the marketplace in order to avoid the daily tax. Even the large, long-distance traders attempt to avoid paying a patente by purchasing grain in the villages. As these activities are hard to regulate, many traders can avoid paying part or all of the tax.

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[3]My enumerator was one such trader. He obtained credit from family members and from merchants whom he had worked for before and had gained their confidence.

Since the August 1983 revolution, the government has attempted to further regulate the market by allowing only licensed traders to move grain between regions. In an effort to reduce the alleged fraud and profiteering in the grain trade, the new government prohibits non-licensed traders from exporting grain out of the Volta Noire. Any grain they purchased must be resold to OFNACER who is responsible for moving grain to other regions. Furthermore, to enforce this ban, OFNACER has said it would require all merchants attempting to leave the Volta Noire with grain to sell that grain to them at the official buying price, regardless of the price at which they purchased the grain. The study of the marketing system in the Volta Noire shows that in the 1983/84 season this ban has not been a significant deterrent to private traders. Most of the long-distance traders from Ouahigouya purchased their grain immediately after the harvest, before OFNACER had a chance to organize their campaign. In addition, the Bobo-Dioulasso traders, coming after those from Ouahigouya, have been only slightly affected by the ban. In some cases to avoid OFNACER sponsored road checks during the major part of the grain marketing season, the Bobo-Dioulasso traders have had to store grain in the region longer than usual. Nevertheless, this study was conducted in the first year of the new regulation, and perhaps significant progress in its enforcement may have been made since then.

The regional grain merchant trade association, while it exists, is not powerful enough to impose barriers to entry. The regional wholesale traders, especially in the high surplus markets, have an informal trade association designed to limit price fluctuations and reduce the risks associated with trading in the markets. However, because the volume of grain handled by these traders relative to the long-distance traders is relatively low, their power to enforce these prices is very limited. Furthermore, as most of the long-distance traders buy their grain outside of the marketplace, the regional traders have even fewer possibilities to enforce their prices.

In addition to the economic barriers to entry, there are some institutional barriers as well. Two important institutional barriers are trader ethnicity and the producer-trader relationship. As noted, most of the large regional and long-distance, wholesale traders are from the Mossi tribe. The Mossi are the major ethnic group in Burkina Faso,

comprising over 60 percent of the population. At lower levels of the marketing systems the ethnicity of each transaction participant is relatively unimportant. Traders can be from any ethnic group. At higher levels though, there seems to be a dominance of Mossi traders. The Mossi were the first to enter the trade along with the Lebanese traders. Probably because the Mossi live in the more deficit regions of Burkina Faso, their need for grain forced them early into the grain trade. In addition, as many Mossi tribespeople moved into the Volta Noire, they took up grain trading in order to send food to their families or village in the Mossi areas. Their activities accelerated the development of the grain markets in the region, and put the Mossi traders in a position of dominance in the marketplace. However, there is little evidence demonstrating Mossi control over the marketplace through the exclusion of other traders. There seem to be no barriers to entry imposed by the Mossi on any other ethnic group.

The most significant institutional barrier to entry is probably the producer-trader relationship. Producers are reluctant to sell grain to unknown merchants. They prefer to sell grain to local merchants with whom they are acquainted. They feel more comfortable knowing the trader, so that in the event of an emergency they will have someone to turn to for credit or for grain purchases. Producers believe that long-distance traders export all their grain from the region, but local traders keep some stocks on hand. This is important to them in the likelihood that they may need to purchase grain in the pre-harvest, hunger period.

To compensate for their unfamiliarity the long-distance traders use members of the village to broker transactions sales for them with producers. Moreover, the prices offered by these traders are generally higher than the prevailing market price or the official price. The higher prices make up for the added risks the producer incurs in dealing with a long-distance trader. In some cases the long-distance trader has attempted to tie himself in closer to his customers by adjudicating family or village problems.

In summary, there are several possible barriers to entry in the grain markets of the Volta Noire. Economically, the most severe is the availability of capital. Traders must also contend with market taxes and trader associations, in addition to institutional barriers, such as

ethnicity and the producer-trader relationship. However the adaptation of certain trade practices, including a quick turnover of stocks, outside the marketplace purchases, and added financial incentives to producers have reduced the impact of these barriers.

5.3 PRODUCT/TRADER DIFFERENTIATION

In the grain markets of the Volta Noire there is more trader differentiation than product differentiation. Producers and traders alike rarely differentiate among grains of differing qualities. All the grains are priced and packaged together. However, there are differences in the services that traders offer producers, which may affect price formation. Traders offer social and economic services to the producer, in order to encourage the producer to sell more grain to the trader. At the same time though, the trader may also impose a lower purchase price on the grain. In addition, between the surplus and deficit regions of the Volta Noire, there is a difference in the services offered by traders. Because of lower supplies, traders are much more aggressive in their search for large quantities of grain in the deficit area than in the surplus areas.

In the marketplace, neither the producers nor the traders make any distinction between grains of different qualities. Traders do not offer lower prices for grain of lower quality. Even with the fixed price measures such as the louche, there is no evidence that traders vary the size of the louche for grains of different qualities. Moreover, even when quality differences in the grain are recognizable, traders would still package grain of varying quality in the same sack. As such, no distinctions will exist in the grain from the Volta Noire at the retail level as well. Nevertheless, while quality differences in the grain are discounted, there are differences in trader activities during the marketing season, and between the surplus and deficit areas of the region.

These differences in the services offered exist mainly among traders in the surplus and deficit areas. Because of lower stocks in the deficit areas, traders must offer farmers greater incentives to sell grain. The major incentive is the provision of transportation services. In

actuality, traders in the deficit areas do not provide transportation services to farmers. Rather, they eliminate its cost to producers by purchasing grain in their household compounds. In the surplus areas, only long-distance traders buy grain in the villages. Local traders deal only in the marketplaces; and because of the abundance of grain in these regions, local traders do not believe it is necessary to buy grain in the villages. These traders wait for producers to sell grain in the marketplaces. However, in bad years, when the harvest is poor and supplies low, local traders do venture into the villages to buy grain.

In addition to service differences among traders, there are differences in the measuring units each employs. Traders alternate between different measuring units, and vary the size of these units throughout the marketing season. In order to raise the margin between the buying and selling of grain, intermediaries at all levels of the marketing system manipulate the measuring units used in grain transactions. With its price fixed at five FCFA per louche, the vendeuse varies the size of the louche between purchases and sales and during the marketing season. The buying louche is generally 20 to 30 percent by weight larger than the selling louche. Moreover, this variation is greater in the central marketplaces of the region as the competition for grain among the vendeuses in these markets is more acute. For the vendeuse, the benefit from the variation in the size of the louche is the only financial reward she receives as an intermediary in the grain market. (See Table 5.2 for a summary of the variations between the buying and selling louche in the Volta Noire).

In addition, both traders and producers claim that the size of the buying louche becomes progressively smaller as the pre-harvest, hunger season approaches. The louche is largest immediately after the harvest as the vendeuse attempts to take maximum advantage of the greater quantities of grain in the marketplace. As the season progresses and competition for grain increases, the size of the louche decreases, offering producers a higher per kilogram price.

The same is true for the size of the tine and other variably priced measuring units. While the price of the tine varies throughout the year, traders also manipulate its size to increase their margins. Like the vendeuse, wholesale traders and assemblers often have two or more tines

Table 5.2

SUMMARY OF LOUCHE VARIATION BETWEEN BUYING AND SELLING TRANSACTIONS IN THE DEFICIT AREA OF THE VOLTA NOIRE[a]

FCFA per kilogram

Date	No. of Louches	Weight (kg)	Value FCFA	Price per kilogram
Purchases				
1/10/84	55	4.0	275	68.75
1/10/84	71	6.0	355	59.20
1/10/84	67	5.6	335	59.80
		Average buying louche size 0.0815 kilograms		
Sales				
1/10/84	100	6.5	500	76.92
1/10/84	100	6.8	500	73.53
1/10/84	245	14.5	1,225	84.50
		Average selling louche size 0.0625 kilograms		
Purchases				
2/24/84	59	4.9	295	60.20
2/24/84	43	3.4	215	63.20
2/24/84	24	1.8	120	66.60
		Average buying louche size 0.0829 kilograms		
Sales				
2/24/84	360	20.1	1,800	89.50
2/24/84	130	8.0	650	81.25
2/24/84	20	2.2	100	90.90
2/24/84	100	5.6	500	89.20
2/24/84	96	6.0	480	80.00
		Average selling louche size 0.0575 kilograms		
Purchases				
3/20/84	48	3.1	240	77.40
3/20/84	43	2.8	215	76.80
3/20/84	195	12.1	975	80.58
		Average buying louche size 0.0628 kilograms		
Sales				
3/20/84	98	5.0	490	98.00
3/20/84	165	8.5	825	97.05
3/24/84	95	4.2	475	113.09
3/24/84	107	5.4	535	99.07
		Average selling louche size 0.0496 kilograms		

[a]Based on direct observations and measurement in the Gassan market, in January, February, and March of 1984.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

which they alternate between purchases and sales. The purchase tine is larger and is generally filled with a heaping head or hat (chapêau). In contrast, the selling tine is smaller and is filled level to the top only. In some markets, traders also vary their tines between seasons, using larger ones in the post-harvest period and smaller ones in the pre-harvest period. The variation between the buying and selling tine often results in an 8 to 10 percent difference in the price. The seasonal variation can add a further 10 percent difference in the price. However, as tines vary among traders as well, the price difference may be more or less depending on the trader.

In summary, no product differentiation exists in the grain markets of the Volta Noire. Traders and producers alike make no distinction among grains of different size, age, or texture, even if these differences are noticeable. But traders attempt to differentiate themselves from other traders through the manipulation of their measuring units and the offering of different services. These variations, however, are made in an attempt to increase their trading margins as well as their market share. As such, the consequences they have on market competition may be offsetting.

5.4 MARKET COMPETITION: PRICE FORMATION

Market competition varies along with the changes in market structure in the Volta Noire. At the lowest levels of the marketing system, with the vendeuse, market competition is very intense. Advancing through the higher levels of the system though, the competition varies depending on the quantities of grain marketed by producers, with surplus markets being highly competitive relative to deficit markets. However even in the surplus markets competition is dulled by certain trader and producer practices.

The vendeuse is probably the most sought after intermediary in the marketplace especially in the deficit areas. As discussed, women prefer selling their accumulated quantities of grain to other women. In addition, producers selling small quantities of grain prefer doing so with the vendeuse on account of the small measures she utilizes.

However, even with the great demand for her services the vendeuse is

usually unable to exert any market control. The limited capital resources available to the vendeuse reduce the individual capacity of the vendeuse to dominate the market. Moreover, there does not seem to be any agreement, formal or informal, among the vendeuses to control prices. Each vendeuse through the use of slightly larger or smaller louches, offers a price that is marginally different from the rest. As such, one can always find sellers of small quantities shopping among the vendeuses to find the best price for their grain. Some ask the vendeuse to measure the grain two or three times in order to obtain a higher price, and others measure their grain with several vendeuses in search of the one with the smallest louche and thus, the highest price.

In limited cases the vendeuse can exercise monopoly control with regard to the grain she has to sell. As an assembler for several long-distance traders, the vendeuse sometimes has the power to dictate prices to the traders. While these traders only trade in the larger marketplaces of the deficit regions, the majority of producer grain sales in these markets are still by the louche. As such, the vendeuse must intermediate between the traders and the producers, allowing her to impose a price upon the traders. Nevertheless, her ability to do so is limited by the capital resources of these traders, and the relative freedom of entry into the grain market at the vendeuse level. If the prices are too high as a result of the vendeuse, then these traders will avoid buying grain in these markets. In addition, the power of the vendeuse is reduced when only one trader is buying in the marketplace. At that time, the vendeuse has no option but to accept the price he is willing to pay.

In the surplus areas though, traders have more control over small-scale transactions. When buying small quantities of grain, less than a tine, traders often pay less than proportional prices for that grain. For example, in January of 1984, the average per tine price for grain in the surplus area was 1,025 FCFA. Similarly, the merchants were paying 75 FCFA for a 16 ounce size tomato can (boite) and 150 FCFA for larger size boite. To fill a tine with the smaller measures, the traders claim one would need 9 tomato cans or 5 oil cans. As such, the price per tine using the smaller measures would be 675 FCFA with the tomato can and 750 FCFA with the oil can. In addition, some traders were using smaller

measures even in transactions over one tine in order to gain the added benefit. When asked why they pay less than proportional prices for small quantities the traders responded that this was due to the added cost of bulking transactions of this size. This price difference, however, is much greater than the rates paid by large wholesale traders to assemblers and village level buyers performing the same services. Long-distance traders pay an average of 250 FCFA to bulk a 100 kilogram sack while the local traders are making at least 1,800 FCFA through lower prices.[5]

Village level intermediaries are in the best position to dictate prices to producers. In the deficit areas there is only one buyer in a village; or if there is more than one, they usually collude on the price offered to producers. Moreover, the agent is generally the only intermediary regularly purchasing large quantities of grain in the deficit areas. In the surplus areas, the trader operating with the broker attempts to monopsonize the village level grain markets. These traders restrict entry to others not able to meet their prices. While it may seem that traders can impose lower prices on producer grain sales in the village, in reality, producers receive relatively fair prices for their grain. Moreover, the prices in the surplus areas are generally higher in the village, because the traders are attempting to assemble a very large quantity of grain rapidly.

Prices for grain purchased by the village agent in the deficit areas are pre-determined by the long-distance traders who supply their operating capital. The trader fixes the per sack price based on local supply conditions and the estimated resale price in the trader's target market. The price offered by the trader through the village agent remains fixed for the agent's buying period. When selling their grain to the agent, producers have little recourse. Therefore, there is no haggling with the agent. The limited supply of grain does not attract many traders to the region. As such, producers in the deficit areas are price takers. Even when there is more than one village agent buying in the village there is little room for discussion, as village agents

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[5]Six tines make up one 100 kilogram sack. If the difference between the purchase prices of the two measures is approximately 300 per tine, the total would be no less than 1,800 FCFA for a 100 kilogram sack.

informally agree on the grain purchase price.

However, price differences between those offered by the trader through the agent, and the nearest marketplace capable of handling a large volume of grain are not excessive. Most sales to the village agent occur in the first few months after the harvest. Producers in the deficit areas rarely make large-scale grain transactions during the pre-harvest season. This means that a majority of sales to the village agent are at a time when the price difference between the village and marketplace is not great. Around the market of Gassan, the average village level price during the immediate post-harvest period of 1983/84 season was 6,500 FCFA per sack, while the market price was 7,500 FCFA.[6] In addition, producers estimated their transportation cost to be 300 FCFA from their village to the marketplace. As such, the price differential between the village and the marketplace is only 700 FCFA per 100 kilograms, or 12 percent of the village level price.[7] Moreover, because the wardens collect taxes on bicycles and mopeds in the larger, regional marketplaces, producers prefer to avoid these marketplaces, even though they are capable of handling a larger volume of grain.[8] Therefore, producers accept the village agent's price with few reservations. Only when the price is ridiculously low will producers look elsewhere to sell their grain. This gives the agent a monopsony over grain purchases in his village.

Similarly, traders buying grain along with the village brokers in the surplus area have a monopsony on grain sales in the village. When the long-distance trader, in particular from Ouahigouya, comes to the village he is attempting to purchase large quantities of grain in a relatively short period of time. He bids up the price in the village to attract a

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[6]Gassan is a large marketplace in the deficit areas of the Volta Noire. The villages surrounding it usually experience some shortfall in production.

[7]Producers and traders alike claim the price difference to be greater in bad harvest years. As the 1983/84 season was among the worst in the region, it stands to reason that the price difference was much greater than the average; and in more normal years the village level price would be closer to the market price during the post-harvest season.

[8]See Chapter 4 for a discussion of producer preferences.

greater number of producer sales. The price he sets is based on the strength of his competition. When other traders or the groupement villagois are more capable of buying grain he raises his price over and above theirs. Local traders claim that when the Ouahigouya trader is buying grain in the area they cannot compete. He monopsonizes the grain trade. They claim he can do so because of his lower operating costs and the higher resale price for grain in his home market. The Ouahigouya traders own their own vehicles, and do not buy grain in the marketplace. They believe this reduces their transportation costs, and allows them to purchase grain in bush villages that are off the main routes followed by the transporter. Furthermore, the local traders claim, the Ouahigouya traders have the added advantage of higher resale prices in their target markets. The resale prices they face are more than double that of the Volta Noire.[9] Therefore, while the Ouahigouya traders monopsonize village level sales, they do so at higher prices. Moreover, their monopsonies are short-lived, remaining only for the time in which they are purchasing grain in the region. Afterwards, producers must look towards the groupement villagois or the marketplace in order to sell grain.

Competition also varies in the marketplace depending on the level of the grain surplus. In the deficit areas as discussed above, traders can exercise market power over large-scale grain sales in the marketplace, provided they are the only trader in the marketplace. When more than one trader is dealing in the marketplace, the vendeuse can play one trader against the other and bargain for higher prices. Because of the limited quantities of grain, neither trader wants to leave the market empty-handed, and will pay a little extra in order to make the trip worthwhile.

In the surplus areas, although there are more high-level traders buying grain, the marketplace is less than perfectly competitive. Due to the producer-trader relationship, and the practice of lower proportional prices for small quantities of grain, prices in these markets are not

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[9]In the 1983/84 season, grain prices in the surplus region, when the Ouahigouya traders were buying, averaged 5,500 FCFA per 100 kilograms. The pre-harvest price in Ouahigouya exceeded 12,000 FCFA per 100 kilograms.

always what they should be. The desire on the part of the producer to sell grain only to recognizable merchants allows the trader to pay less for the producer's grain than under competitive market conditions. The producer recognizes this, but values the loss as the price necessary to maintain a social bond to the trader. The financial loss is not considered an economic loss, as the producer gains some satisfaction from the relationship. Moreover, the producer will accept the loss up to the point where he believes the trader is taking excessive advantage of the relationship. In other words, he will look for another merchant when he feels the price per tine or the size of the tine itself deviates too much.

In addition, to encourage producers to sell larger quantities of grain, traders offer higher prices for large volume transactions, and they pay proportionally lower prices for small quantities of grain. This practice causes grain sold in lower volumes to be worth less than grain sold in bulk quantities, creating some sort of product differentiation in the grain. Thus, traders make it difficult for producers to sell only small quantities of grain in the marketplaces of the surplus areas.

5.5 CHAPTER SUMMARY

It is difficult to claim that a market is competitive or not. There are no absolute measures of competition, nor are there any measures that can define levels of competition. As such, one can only speak of relative competition. Grain markets are relatively competitive when producers as well as traders can trade in the marketplace with the fewest possible restraints.

In the Volta Noire, the grain marketing system is relatively competitive. At the lowest levels of the marketing system, producers can find many buyers for their grain. Generally, there is very little price collusion among these intermediaries and relatively free entry in and out of the system at this level. In the villages of the deficit areas though, there is a greater tendency for trader monopsony. Due to the low volume of grain marketed in this region, there are few higher-level intermediaries dealing in the deficit areas. This allows the village agent to monopsonize the large-scale grain transactions and impose a somewhat lower price on the producer. But most of the village agent

purchases are during the immediate post-harvest season when marketplace prices are equally low, thus, the relative price difference between the village and the marketplace is not significant.

In the surplus areas markets are generally more competitive, but certain trader practices reduce the benefits to producers from selling grain. The markets in the surplus area are dominated by the long-distance traders from Ouahigouya and Bobo-Dioulasso. These traders are competing for the available grain surplus in the region. The Ouahigouya traders are by far the largest, and tend not to compete against each other. They offer higher prices than their Bobo-Dioulasso counterparts and the official grain marketing board. But their purchases are limited to the villages and to certain times of the year, in particular during the immediate post-harvest season.

The marketplaces of the surplus area are dominated by the Bobo-Dioulasso traders and the large, regional wholesalers. While there are many traders competing for grain in these markets, the competition is mitigated because of the producer-trader relationship and the relative difficulty in entering the higher levels of the marketing system. The producer-trader relationship allows traders to pay less for the producers' grain than they could in an open market transaction. Moreover, the limited availability of capital reduces the number of large traders operating in these markets, and in turn the level of competition. Nevertheless, producers find the financial loss due to lower prices somewhat outweighed by the social benefits of the producer-trader relationship.

CHAPTER SIX

MARKET PERFORMANCE

INTRODUCTION

To complete the analysis on the efficiency of the Volta Noire grain marketing system, it is necessary to analyze its performance. For the purposes of this study, market performance analysis includes a study of marketing margins and trader profits in order to determine whether the traders operate at the lowest possible cost and have normal profits. In addition, profit analysis is useful in determining the usefulness or the economic justification of these traders.

Market performance is also a study of producer and trader access to markets. For producers to benefit from the marketing system they must have access to it. Measuring the level of access to markets is also useful in determining the equity of the grain marketing system. If the level of access is unequal, benefits from the marketing system are likely to be unequally distributed among producers.

In addition, market performance analysis includes a study of the extent of market integration. When markets are fully integrated, prices and, more importantly, price changes are rapidly and accurately passed from one market to another. This allows producers, traders, and consumers to make rational decisions with regard to grain transactions, and it also allows for an efficient allocation of resources. In the past, the primary means of measuring market integration has been to correlate prices in different markets. Those markets with high levels of correlation are said to closely integrated. In this study market integration is analyzed differently. Due to a lack of resources and time, a test for levels of market information and a comparison of seasonal price changes are used to indicate relative levels of market integration in this study. These tests should be adequate indicators of the relative levels of market integration in the Volta Noire.

The major conclusions of this chapter are as follows:

1. Marketing margins and trader profits are generally not excessive, but in years when the harvest is quite bad, traders can earn excess profits in the grain markets. In addition, margins are higher for the long distance traders from Ouahigouya, because of the higher resale prices they face in their target markets.

2. There is fairly good market access in the Volta Noire. Producers, at all levels of the marketing system have access to at least one, if not more marketing outlets. However, in the lowest levels of the system, producers may have to accept lower prices in order to attract traders to purchase at these levels.

3. Markets are integrated only on a local basis, and not throughout the region. Neither producers nor traders look outside their local trading areas for alternative markets. Only when grain supplies in their region are very low, do they venture into new markets. Moreover, long distance traders tend to restrict their activities to one or two areas of the Volta Noire. As such, the markets they trade in are more closely tied to their target markets, than to other markets in the Volta Noire.

6.1 PROFIT ANALYSIS

In the past, many assumptions were made about the inefficiency of grain traders and the rural grain marketing system. Yet, most of these assumptions were made without properly analyzing the grain marketing system at this level. In this study, trader profits are analyzed in order to determine whether the grain marketing system at the producer level is efficient or not. Traders earning excess profits are considered a symptom of inefficiency in the system. Excess profits are earned when traders absorb price increases at the consumer level without passing them on to producers. This causes the margin between the buying and selling price to exceed the cost of marketing by more than the going rate of return to capital. As such, producers will tend to sell less grain and consumers will have to pay more for it. In contrast, conditions of efficiency are met when price changes are passed through to the producer, and traders earn normal profits.

In addition, efficiency can also be a measure of the traders' usefulness in the marketing system. For traders operating efficiently, there is an economic justification to their presence in the marketplace.

They are considered useful in that they can intermediate between buyers and sellers, without raising the effective marketing cost of either. In contrast, when earning excess profits, traders become more of a burden on the marketing system, raising the effective cost of marketing to both buyers and sellers. The marketplaces of West Africa are characterized by a large number of intermediaries, and many policy makers consider these traders' activities are redundant to the marketing system. Therefore, through profit analysis, one hopes to demonstrate whether traders are efficient, and in fact necessary in the grain marketing system of the Volta Noire.

Profit analysis consists of evaluating marketing margins against marketing costs. In this study, the analysis begins with a description of the various marketing costs in the system and how they apply to individual traders in the grain markets of the Volta Noire. This is followed by a discussion of trader margins and profits, and some qualifications to the results. Four types of traders have been selected for analysis, the long distance trader operating in the village, the wholesale trader in the marketplace, the self-employed local assembler, and the vendeuse.

The figures presented below have been extrapolated from interviews with regional and long-distance traders. Actual costs though, may vary among traders, resulting in higher or lower marketing margins. Nevertheless, these figures do give some indication of the level of profits traders stand to earn in the grain markets of the Volta Noire.

6.1.1 Marketing Costs

Marketing costs are those costs associated with bulking grain at the primary level and delivering it to the regional or long distance wholesale trader or consumer in the Volta Noire. The major aspects of the marketing costs are buying costs, handling and transportation fees, and storage costs. Also considered is the patente or market tax. However, not every trader has the same cost structure, and even among similar traders the cost of operating in the marketing system may vary.

Buying Costs are the fees paid to such commissioned buyers as the village agent and broker, or the local assembler. These commissions are

based on a rate per 100 kilogram sack. In the 1983/84 buying season, the commission ranged from 150 to 300 FCFA per sack, or approximately 3 to 6 percent of the purchase price. Commissions vary depending on the quantity of grain assembled (relative to the quantity available), the distance from the purchase area to the trader's target market, and the services rendered for the trader. In addition, the commission also reflects the trader's confidence in his buying agent.

Traders reward the village agent or broker for their ability to assemble large quantities of grain, 50 to 60 sacks in the deficit areas and several hundred in the surplus areas. The same is true for the marketplace agents, although the quantities expected are somewhat smaller. Moreover, the closer the buying area is to the trader's target town, the higher the commission. This reflects the reduced transport cost the trader incurs in moving the grain back to this home market. The trader also pays a higher commission for the additional services provided by the buying agent. These services include the provision of storage for the grain and lodging facilities for the trader.[1] The agent also receives an additional commission from the trader if he bags the grain, or if he arranges advanced (pre-harvest) purchases of grain from the producer. Finally, the commission also rises with seniority. Long time associates of the trader receive a higher commission because a trader wishes to remain with agents he can trust.

Handling fees consist of the costs associated with the actual bagging, loading and unloading of the grain. The trader will generally pay a marketplace representative a small fee for bagging loose grain bought by the trader in the marketplace. This service includes filling and sewing-up the grain sack. Sometimes, commissioned buyers bag the grain themselves, and add the cost of bagging to their commission. In addition, whether the trader is buying in the village or the marketplace, he must pay someone to load the grain onto his truck and unload it in the target market.

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[1]The commission includes a provision for short-term storage up to three months depending on whether the agent is in the marketplace or the village. Afterwards, there is an additional storage charge added by the agent.

Handling fees are a very small component of the total marketing cost.[2] Bagging fees are approximately 50 FCFA, and the loading and unloading charges vary between 150 and 250 FCFA depending on the buying point. The price of the sack is fairly constant at 100 FCFA per bag.

Transportation costs are highly variable in the Volta Noire. They depend on the distance transported, the quality of the road and the destination. The longer the distance, the lower the per kilogram cost of transportation, but the quality of road as well as the risks associated with transporting grain over a particular route may raise the price. An analysis of transportation rates in the Volta Noire yields the following results: (see Table 6.1.)

When the distances traveled are less than 15 kilometers, the per kilometer cost of transporting a sack of grain averages more than 0.17

Table 6.1

SAMPLE OF TRANSPORTATION RATE FOR THE VOLTA NOIRE

FCFA per 100 kilogram sack and by kilometer

Origin	Destination	Distance	Price/100 kg. Sack	Price/km.
Gouron	Bobo-D'sso	283 km.	1,200	0.04
Gouron	Ouahigouya*	120	1,000	0.08
Djibasso	Dedougou	140	750	0.05
Djibasso	Tougon	170	1,000	0.06
Djibasso	Nouna	80	500	0.05
Djibasso	Bobo-D'sso	260	1,000	0.04
Dedougou	Ouahigouya	180	1,000	0.06
Nouna	Bobo-D'sso	190	1,000	0.06
Gouron	Gassan	55 km.	500	0.09
Gouron	Tougon	25	500	0.10
Djibasso	Bambarokui	40	500	0.13
Djibasso	Doumbala	30	500	0.17
Djibasso	Barani	40	500	0.13
Nouna	Dedougou	60	500	0.08
Solenzo local		3-15 km.		0.14 - 0.17
Nouna local		3-12 km.		0.22 - 0.25

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

[2]Ishmael Ouédraogo (1983) estimates handling fees rarely exceed 20 percent of the total marketing cost for any intermediary.

FCFA per kilogram. For distances between 25 and 80 kilometers, the per kilometer cost averages more than 0.123 FCFA per kilogram, while distances above 80 kilometers average only 0.05 FCFA per kilogram.

Poor road quality raises the cost of transportation, as does moving grain between administrative centers. In particular, moving grain from the Volta Noire to the Yatenga incurs a much higher per kilogram cost of transportation; sometimes double the cost for similar distances within the Volta Noire. This is because the government is attempting to restrict the private grain trade between the two regions, and traders moving grain between them face higher risks and in turn higher costs.

The above transportation analysis is based on rates provided by the transporter or "bush taxi" driver. The transport is a private truck or bus that carries both passengers and cargo between markets in the region as well as throughout Burkina Faso. However, some traders own their own trucks and provide their own means of transportation. While the actual costs to the trader of operating a personal vehicle have been difficult to obtain, most traders claim these costs are lower than those charged by the transporter.

Storage Costs include the actual cost of storing the grain, the associated physical losses, and the cost of capital tied-up in inventory. Actual storage costs consist of a fixed monthly cost for the warehouse and a per sack charge for guarding the grain. Traders who have their own storage facilities only pay the amortization on the warehouse. This rate is calculated on a per sack basis. However, the data from the Volta Noire is not sufficient to calculate this figure. As such, the warehouse fee paid by traders renting storage space will be used instead.

Unfortunately, there is little information or data from this study on the physical grain loss that occurs during storage. However, as much of this grain is assembled without the use of standard weights and measures, the loss would be hard to measure. A further difficulty arises when attempting to estimate the cost of inventory. Ishmael Ouédrago points out that there may be several different estimations for the opportunity cost of capital tied up in inventory. These include the bank's rate of interest or business loans, the current rate of profit for the industry or a social discount rate (Ouédrago, 1983, p. V-39). The latter two measures are quite difficult to obtain. Moreover, as the estimates for

marketing costs are somewhat less than precise, the opportunity cost estimate need only be an approximation of the actual cost. The bank's rate of interest would be the best approximation, as this is the rate traders and investors are willing to accept as a return on investment. During the 1983/84 season, the local banks in the Volta Noire, the BIV and the BICIA, offered loans to local businesses at 16 percent.

The Market Taxes (Patentes) are not an important component of the long-distance trader's marketing cost. As much of these traders' operations take place outside the marketplace, they avoid paying the full market tax for trading in the Volta Noire. As previously discussed, traders may buy grain directly in the village. In this way they can avoid the tax collectors and thereby reduce the actual cost of operating in the Volta Noire. Small marketplace intermediaries pay a market tax of between 10 and 25 FCFA per market day. Depending on the season, this is approximately 10 to 15 percent of their returns. Larger traders who deal in the marketplace pay a higher tax depending on the volume of grain handled and the number of markets they trade in.

6.1.2 Actual Trader Costs and Margins

The following is a summary of marketing costs and margins for the following four major categories of traders: wholesale traders buying in the village; wholesale traders buying in the marketplace; local assemblers; and the *vendeuses*. Actual trader marketing costs vary depending on the place and means of purchase, and the type of trader. Smaller traders have different cost structures from those of larger traders. In addition, costs vary depending on where and when traders buy and sell grain.

A major difficulty in this and all other studies of third world marketing systems is to value the opportunity cost of labor to traders. In many cases the value of the traders' time cannot be estimated because there are no other opportunities available to them. If they do not trade, they will not do anything else. Therefore, there is no estimate of the traders' labor cost included in these calculations.

The margin between the traders' buying and selling price varies depending on the season and the marketplace they deal in. Both the

purchase and the sale price for grain is higher in the later, pre-harvest period, but the spread between the two prices is likely to increase from the post-harvest to the pre-harvest period. In addition, grain prices in the surplus area fluctuate more than in the deficit area. In the post-harvest period prices are lower in the surplus areas, but during the pre-harvest period are higher than those in the deficit area.[3] As such, a trader's margin will differ depending on the season and area he deals in.

On the selling side, traders can increase their margins, the longer they hold onto the grain. If a trader stores grain well into the pre-harvest season he can to obtain up to twice his purchase price.[4] However, most traders operating at any level in the grain marketing system of the Volta Noire are unable to hold their inventory for so long. Only the largest traders have sufficient operating capital to hold in inventory for 6 or 7 months. Moreover, if during the pre-harvest season the prospects for the next harvest seem good, the seasonal price increase may not be so great. In other words, there is a high degree of risk that the anticipated selling price may not be reached. Therefore, many traders prefer to turn their stocks over rapidly, freeing capital for use in other ventures.

Price is not the only determinant of a trader's margin; he may also manipulate the measuring units to obtain a higher selling price. At all levels of the system, traders use different measuring units to buy and sell grain. In addition, the way they fill these units, with or without a heaping head, changes the amount of grain sold for the same price. As such, the margin per kilogram may be larger than is reflected in the price difference among the non-standard weights and measures.

Village Level Wholesale Traders are generally long-distance traders coming from Ouahigouya. They are the most important wholesale traders buying grain in the villages of the deficit areas. Around the beginning of August, the wholesale trader comes to advance funds to the village agent. At the same time, the trader will investigate the market

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[3]For a discussion of seasonal price fluctuations see section 6.4.

[4]Depending on the abundance of the harvest and the market the trader sells in.

conditions and the likely size of the approaching harvest in order to establish his village level buying price.

In the 1983/84 season the average buying price for grain in the villages of the deficit area was 6,500 FCFA per 100 kilogram sack. This price was in effect for the whole buying season.

Resale prices for grain in the Ouahigouya market were quite volatile. The average selling price for grain during the post-harvest season was estimated at 7,250 FCFA per 100 kilogram sack, and rose above 12,000 francs, CFA per sack during the pre-harvest period.

The village agent makes most of his grain purchases between October and January. He bags as well as stores the grain for the trader until the latter can return to collect it. The storage and bulking fee for the grain is included in the commission the trader pays the agent, and the trader provides the grain sacks.

The trader returns to the Volta Noire sometime in March or April to collect the grain. At that time he pays the village agent his commission. In the 1983/84 season the commission for agents operating in the deficit areas averaged 250 FCFA. This was an increase of 50 FCFA from the year before. When the trader comes, he brings along one or two assistants who load the grain onto his truck. Traders estimate the per sack loading and unloading fee to be 125 FCFA in the village The cost of the sack is not included as the trader charges the buyer of his grain for the sack.

The trader may have his own vehicle or rent one from another trader. The average cost of transporting a sack of grain from the villages in the deficit area to the trader's home market in Ouahigouya is approximately 1,000 FCFA.

The long-distance wholesale trader may also pay a market tax to buy grain in the villages of the Volta Noire, but as these traders deal primarily in the villages it was difficult to ascertain the amount of the tax levied on them in the Volta Noire. Similarly, the cost of the trader's patente for trading grain in the Ouahigouya market was difficult to obtain. Therefore, the market tax rate employed in this study is that of the regional, wholesale trader dealing in Dédougou. In Dédougou, the market tax levied on traders dealing in excess of 30 tons was 15,000 FCFA. As 30 tons is also the average capacity of the village-level

wholesale trader, the per sack tax rate to them was approximately 50 FCFA.

The village agent's commission includes the cost of storage in the village. However, the trader must pay the cost of any additional storage in his home market, as well as the cost of capital tied up in the grain. There is some uncertainty as to the amount and the cost of storage the trader adds in Ouahigouya. However, as the trader incurs little or no direct storage costs in the Volta Noire, it was assumed that the trader stores the grain in the Volta Noire until it is needed in Ouahigouya. Thus, there is only a minimal amount of storage provided in the target market, the cost of which is rather low to the Ouahigouya trader. As such, these costs have been omitted, but must be accounted for in the profit statement. This would mean his capital cost is 735 FCFA per sack for the 7 months between the time the trader first advanced the agent funds to buy grain to the time it is sold in Ouahigouya. (The costs associated with buying grain in the villages of the deficit area are summarized and explained in Table 6.2.)

The margin on grain bought at the village level in the deficit area and resold by the wholesale traders in Ouahigouya was relatively constant at approximately 5,500 FCFA per sack. This is because traders bought grain in the post-harvest season and stored it until the pre-harvest season. As such, long-distance traders dealing in the deficit area villages had gross profits of 3,400 FCFA per sack, or a 40 percent return on their investment for the period. However, these figures do not include the cost of the traders' operation in Ouahigouya nor any additional marketing costs they may incur when selling the grain. (See Table 6.3 for a listing of margins and profits for the traders dealing in the deficit areas.)

Marketplace Wholesale Traders include the long-distance traders from Bobo-Dioulasso and some from Ouahigouya as well as the regional traders from the Volta Noire. Many of these traders find it important to supervise the trading activity in the markets they deal in, in order to respond to changes in market conditions. Furthermore, this gives the trader the opportunity to collect his grain and turn over his capital rather quickly. Nevertheless, due to the producer-trader relationship, most long-distance traders buy grain through a commissioned assembler or from regional wholesale traders.

Table 6.2

ESTIMATED MARKETING COSTS FOR WHOLESALE TRADERS OPERATING IN THE DEFICIT AREA VILLAGES OF THE VOLTA NOIRE

FCFA per 100 kilogram sack

Services	Cost	Total Cost	% of Total Cost
BUYING		250	12
Commission	250		
HANDLING		125	6
Loading in village	50		
Unloading in target market	75		
TRANSPORTATION		1,000	47
Village to target market[a]	1,000		
STORAGE/INVENTORY		735	33
Capital Cost[b]	735		
MARKET TAX		50	2
Patente	50		
TOTAL COST		2,160 FCFA	100%

[a]Transportation costs based on the average rate as reported by the transporter. The actual cost of transportation for the trader using his own vehicles is said to be lower.

[b]The cost of grain held in inventory includes the marketing costs up to the point of storage. The calculation is as follows: The cost of grain (6,500), plus the total cost of delivering grain to storage (1,385) results in a total pre storage price of 7,885 FCFA. When multiplied by the opportunity cost of capital (16%) the annual cost of capital held in inventory is 1,261 FCFA, and 735 FCFA for the seven months of storage.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

Table 6.3

ESTIMATED MARKETING MARGINS AND GROSS PROFIT LEVELS FOR WHOLESALE TRADERS OPERATING IN THE DEFICIT VILLAGES OF THE VOLTA NOIRE

FCFA per 100 Kilogram sack

	Season	
	Pre-harvest	Post-harvest
Buying Price	6,500 FCFA	--
Selling Price	--	12,000 FCFA
Marketing Margin		5,500
Marketing Costs		2,120
Gross Trading Profit[a]		3,380 FCFA

[a]May not include cost of selling grain in Ouahigouya (i.e. staff in store, cost of buildings, and license fees).

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

When buying grain through the assembler, the long-distance trader advances some cash to the assembler and returns soon after to collect his grain. Most of the traders buying in the marketplace have limited funds, so they must turn-over their stocks rather quickly. As such, they return to the Volta Noire regularly, some even weekly, to advance new funds and collect their grain from the assembler.

In addition, to gather sufficient quantities of grain in the marketplace, traders must offer competitive prices or lose grain to other traders. Therefore, they have to return periodically, to readjust the prices at which their agents purchase grain for them. In some areas, most notably the markets at Kouka and Djibasso, competition is so intense that traders must come weekly in order to change their prices.

The marketing costs which are summarized for the Bobo-Dioulasso trader in Table 6.4, include the commissions paid to the assembler or to the vendeuse. The assembler's commission in the 1983/84 season was 250 FCFA per sack. The vendeuse's commission was not fixed, it varied weekly depending on the market conditions and the amount of grain purchased. Traders also paid handling fees for bagging, loading and unloading the grain, as well as transportation fees to and from the marketplace. Handling fees averaged 225 FCFA for the marketplace intermediary, and transportation rates averaged 1,000 FCFA per sack. In addition, these traders are required to pay a market patente in order to buy grain in the marketplace. The estimate for the patente is the same as for the Ouahigouya merchant, 50 FCFA per sack.

The Bobo-Dioulasso traders try not to store grain in the Volta Noire, but some assemblers provide storage facilities for the wholesale trader when needed. The assembler provides the first three months of storage as part of his commission. This is so that the trader has sufficient time to come and collect the grain. For grain left in excess of three months, the assembler charges the trader for the warehouse rental as well as the actual storage costs. The warehouse fee is a fixed cost regardless of the number of sacks stored, while the storage costs are based on a per sack rate. In addition, the trader must also cover the cost of the capital tied up in inventory.

Table 6.4

ESTIMATED AVERAGE MARKETING COSTS FOR BOBO-DIOULASSO WHOLESALE TRADER OPERATING IN THE MARKETPLACES OF THE SURPLUS AREA OF THE VOLTA NOIRE

FCFA per 100 kilogram sack

Services	Cost	Total Cost	% of Total Cost
BUYING		250	11
Commission	250		
HANDLING		225	10
Bagging	50		
Loading in the V.N. market	100		
Unloading in target market	75		
TRANSPORTATION		1,000	43
Village to target market	1,000		
STORAGE/INVENTORY		818	34
Six months storage fee[a]	260		
Capital Cost[b]	558		
MARKET TAX		50	2
Patente	50		
TOTAL COST		2,343 FCFA	100%

[a]First three months of storage are provided free by the assembler in the Volta Noire. The storage costs for the additional three months includes a flat rate for the warehouse and a per sack storage fee. The warehouse fee of 1,000 FCFA per month averages 10 FCFA per sack for 100 sacks of grain.

[b]Calculations are similar to those for the village level wholesale trader. See footnote b for Table 6.2.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

During the 1983/84 season, the marketing margin for the Bobo-Dioulasso traders declined between the post-harvest and pre-harvest seasons from 3,000 to 2,500 FCFA. (see Table 6.5 for a listing of marketing margins and trader profits for the Bobo-Dioulasso trader.) This reflects an average buying price of 4,500 FCFA per sack in the early post-harvest period rising to 8,500 FCFA by the season end. The average selling price for grain in Bobo-Dioulasso was estimated to be 7,500 FCFA in the post-harvest period and 11,000 in the later period. Moreover, for the few traders who could store grain between the seasons their marketing margin rose to 6,500 FCFA in the pre-harvest period.

Gross profit levels for the traders from Bobo-Dioulasso averaged 1,525 FCFA per sack in the post-harvest period and 1025 FCFA in the pre-harvest period. This reflects an average rate of return of 26 percent in the post-harvest season and 10 percent in the pre-harvest period for only several weeks of investment. For those traders able to

Table 6.5

ESTIMATED AVERAGE MARKETING MARGINS AND PROFIT LEVELS FOR WHOLESALE TRADERS OPERATING IN THE SURPLUS AREA MARKETS OF THE VOLTA NOIRE

FCFA per 100 Kilogram sack

	Without Storage		With Storage
	Post-harvest	Pre-harvest	Cross Season
Buying Price	4,500	8,500	4,500
Selling Price	7,500	11,000	11,000
Marketing Margin	3,000	2,500	6,500
Marketing Costs	1,475	1,475	2,343
Gross Trading Profit	1,525 FCFA	1,025 FCFA	4,157 FCFA

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

store grain between the periods, their average profit was 4,200 FCFA per sack, which translates into an average rate of return of 67 percent for the period.

Local Assemblers have a relatively small personal grain business. In general, the assembler devotes much of his effort to buying grain on commission for other regional or long-distance traders. Whenever possible though, the assembler attempts to buy some limited quantities of grain for his own business. This grain, usually less than a ton, is stored by the assembler for resale during the pre-harvest, hunger period.

The marketing costs for this operation are relatively low, as the assembler incorporates these purchases with his other activities. The primary costs to the assembler include the added handling fees, the cost of the grain sack and the market tax applicable to his sales. In addition, he must also account for the cost of capital tied-up in the grain. Table 6.6 summarizes the marketing costs for the assembler.

The assemblers earned an average margin of 2,000 FCFA per 100 kilogram sack during the 1983/84 season. The margin is based on an average buying price of 7,000 FCFA and a selling price of 9,500 FCFA. The assembler's profit for this period is estimated at 1,537 FCFA per sack. This represents a 20 percent return on his investment for the period. Table 6.7 lists the average margin and rate of profit for the assembler.

The vendeuse, in some markets, is the most important intermediary. Producers seek her out because of the small quantities of grain they sell. As such, it is important to analyze the performance of the vendeuse in order to determine if she is an economically efficient and justifiable intermediary.

The vendeuse turns over her grain stocks rather rapidly, usually on the same market day or the next. Grain that is stored between market day is kept in the vendeuse's house. In addition, she pays no handling or transportation fees as she performs these services herself. The only marketing cost the vendeuse must pay is the daily market tax. However, some vendeuses attempt to avoid the tax by dealing outside the marketplace.

As the vendeuse does not deal in 100 kilogram sacks, her margins are listed on a per kilogram basis. In the deficit areas the vendeuse's

Table 6.6

ESTIMATED AVERAGE MARKETING COSTS FOR LOCAL ASSEMBLERS IN THE VOLTA NOIRE

FCFA per 100 kilogram sack

Services	Cost	Total Cost	% of Total Cost
BUYING		150	16
Commission to buyers in bush markets	150		
HANDLING		125	12
Bagging	25		
Loading in the bush market	50		
Unloading in target market	50		
TRANSPORTATION		250	26
Village to target market	250		
MARKET TAX		40	5
For local trading (Patente)	25		
Daily market tax	15		
STORAGE/INVENTORY		398	41
Capital Cost[a]	398		
TOTAL COST		963 FCFA	100%

[a]Calculations are similar to those for the village level wholesale trader. See footnote b for Table 6.2.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

Table 6.7

ESTIMATED AVERAGE MARKETING MARGINS AND PROFIT LEVELS FOR ASSEMBLERS IN THE VOLTA NOIRE

FCFA per 100 Kilogram sack

	Season	
	Post-harvest	Pre-harvest
Average Buying Price	7,000	--
Average Selling Price	--	9,500
Marketing Margin		2,500
Marketing Costs		963
Gross Trading Profit		1,537 FCFA

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

margin averages 12 and 1/2 FCFA per kilogram.[5] The average daily volume of grain transacted by the vendeuse is twenty kilograms.[6] Thus, the daily margin earned by the vendeuse is approximately 250 FCFA.

In the surplus area the daily margin earned by the vendeuse is somewhat higher because the volume of grain transacted is greater. In addition, the difference between the buying and selling louches may also be greater in the surplus areas. The per kilogram margin earned by the vendeuse averages 17 FCFA. Multiplied by an average daily volume of 30 kilograms, the daily margin for the vendeuse is 510 FCFA in the surplus area.

The vendeuses have few marketing costs other than the daily market tax of approximately 25 FCFA per market day. As such, the vendeuse in the deficit areas earns an estimated average of 225 FCFA per market day, which translates into a 20 percent return on her investment. In the surplus areas, the vendeuse's profit margin is approximately 485 FCFA, resulting in a 25 percent rate of return on her investment.

In comparison to the annual normal rate of return of 16 percent, it seems that most traders, including those at the lowest levels of the marketing system are earning excess profits. The average profit of the village level wholesale trader is 24 points above the bank's interest rate of 16 percent, just for the period in question. In addition, the profit rates for the wholesale traders from Bobo-Dioulasso and the regional traders were somewhat high, as well. However, these figures must be qualified by noting that profits in the 1983/84 season were probably higher than in more normal years.

In the first place, marketing margins for grain are generally higher in years with lower rainfall and poorer harvests. Traders admit that marketing margins for the 1983/84 season are excessive because the harvest for that year was one of the worst ever in the Volta Noire. Even in the surplus areas, grain production was much lower than normal.

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[5]Based on 200 FCFA per tine margin, divided by an estimated 16 kilograms in a tine.

[6]Self-report of the vendeuse in local units. The figure is based on a translation of the local units into kilograms.

Moreover, the 1983/84 harvest followed another poor harvest in the 1982/83 season, and the early prospects for the 1984/85 season were not good. With successively poor harvests, both urban and rural consumers purchase large quantities of grain during the early pre-harvest season in order to cushion themselves against a personal short-fall. This practice tends to exacerbate the seasonal price increase and inflates trader marketing margins.

As a result of the higher marketing margins, trader profits will rise during poor harvest years. The study of trader profits suggests that in poor harvest years, the seasonal price rise is usually greater than the cost of storing grain between seasons. As such, traders who can store grain between the pre-harvest and post-harvest seasons will earn excessive profits, as is evident from the 1983/84 season. However, the larger traders claim that in normal harvest years the pre-harvest season prices may not rise by as much as anticipated. In this case, the price rise may not even cover the storage costs between the pre-harvest and post-harvest seasons, causing the traders storing grain between seasons to lose money.

Moreover, the smaller traders claim that when production is normal, demand for grain in the marketplace is lower, as producers do not have the need to purchase large quantities of grain. As a result, many of the smaller traders reduce their level of activity in the grain markets during a good harvest year. These traders claim that during these years it is more profitable to trade shea nuts or other cash crops rather than grain.

This claim is reinforced further by the trading practices of the Bobo-Dioulasso traders and the vendeuses. They claim that during good harvest years the resale price for grain is not very high. Thus, they tend to limit their activities during those years to their main operating centers in the Volta Noire. However, during a bad harvest year the resale price is much higher, allowing them to trade in higher priced producer markets, as well. For the first time in years the Bobo-Dioulasso traders bought grain in the Dédougou market during the 1983/84 season. Moreover, rather than remain in the marketplace or in nearby villages, the vendeuses ventured further out into the bush to buy grain during this season.

In summary, while the analysis for the 1983/84 season shows traders earning excess profits, we cannot assume that this is always the case. Traders earn excess profits in poor harvest years because the seasonal price increase is much greater. But the seasonal price rise varies from one year to the next, and, in general, is very unpredictable. As such, in some years traders may earn excess profits, and in others they may not even be able to make an adequate return. To confirm this hypothesis, one needs to devote greater time and resources to more in depth quantitative studies of marketing margins and trader profits. However, the increase in trader activity in the grain markets during a bad harvest year seems to indicate that the profit level is much higher in these years.

6.2 ACCESS TO MARKETS

Producers can only benefit from the marketing system if they have access to its markets.[7] Without access to markets, producers will not receive the benefits of higher consumer prices or even government sponsored price support programs. Moreover, having equal access to markets is a sign that benefits have a chance to accrue evenly and equitably to all producers.

Producers can be denied some marketing outlets, because traders do not find it worthwhile to deal in their areas. The results of the grain marketing study in the Volta Noire demonstrate that most producers have at least one marketing outlet, and usually two or more. In addition, in a comparison of grain market conditions throughout the region, producers are found not to receive unfair prices relative to other regional markets. Nevertheless, conditions vary between surplus and deficit areas, with some producers benefiting more from additional marketing outlets.

For the grain marketing system to have an impact on the development of Burkina Faso, the small producer must be included in the system. As noted in Chapter 1, small producers are in fact major contributors to the

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[7]Access may be directly by the producer going to a marketplace or by the producer having contact with a buyer in the village or on the road.

grain marketing system in developing countries. Thus, for the system to operate efficiently, it must be accessible to the small producer. In the Volta Noire, the small producer does have access to several marketing outlets, but he generally receives lower prices for his grain than do large producers. The small producer, selling quantities of grain less than a tine, usually has the opportunity to do so in either the marketplace or the village. He can sell grain to the vendeuse or to the village agent. In the surplus areas he can even sell to the local assembler. These outlets are not solely for the local grain market, but are part of the larger grain marketing system exporting grain from the rural areas. As a result, the small producer receives both the benefits and consequences from trading in a national network. The benefits may include higher producer prices in line with higher consumer prices. As a consequence though, the small producer must pay the additional costs associated with bulking the grain into wholesale quantities. These costs are reflected in the lower prices paid for grain bought in small quantities.

Moreover, the consequences are not evenly distributed across all small producers. Those in the surplus areas face lower prices for their grain, because there are fewer intermediaries dealing at their level in these areas. Because the grain marketing system in the surplus area is geared to the higher levels of grain transacted, producers wanting to sell smaller quantities find it somewhat harder to obtain favorable prices for their grain. As noted, there are no village agents in the surplus areas, and few vendeuses deal in the export market. In addition, traders buying in small quantities pay unusually low prices for the grain. As such, although small producers have access to the grain marketing system, small producers in the surplus areas have to accept poorer conditions than do their peers in the deficit areas.

In contrast, large producers have better access to marketing outlets in the surplus areas than in the deficit areas. Producers wanting to sell large quantities of grain in the deficit areas can do so with the local village agent. However, later in the season, they must look harder for marketing outlets and thereby incur some additional expenses in selling their grain. Nevertheless, there are few producers able to buy large quantities in the deficit areas, and many large producers attempt

to sell their surplus grain to fellow villagers rather than to traders.

In summary, producers at all levels have access to at least one, if not several marketing outlets for their grain. The grain marketing system has developed a wide ranging network of collection intermediaries at all levels of the system. However, producers at the lowest levels are forced to pay for the additional costs of the operations at their level, by accepting lower prices for their grain. These prices do not seem out of line with those in higher level markets, except for the small producer in the surplus areas.

6.3 MARKET INTEGRATION

For the marketing system to be efficient, markets should be integrated. Market integration implies that price movements in different markets are spatially and temporally correlated, and that any price difference between the two markets is equal to the cost of transportation and/or storage between them. If these conditions are not met, then some trader or traders may be earning excess profits and causing the market to operate inefficiently. The two measures of market integration employed in this study are access to market information and comparison of seasonal price fluctuations.

6.3.1 Access to Information

When market participants have access to information on different markets, this is usually an indication that some form of exchange takes place between these markets. If the prices in other markets are known, traders or producers can transmit price changes from one market to another by altering their prices to reflect those in other markets. This would effectively integrate prices in the two markets, and allow market forces that influence prices in one market to be transmitted to the other.

Another aspect of market information is its ability to influence marketing efficiency directly. In theory, if either a trader or a producer has control over the sources of information on supplies and market conditions they could prevent disclosure of price changes, and in turn reduce the level of efficiency in the marketing system. Without a

clear transmission of market signals, neither traders nor producers could effectively allocate resources.

Adequate measures of marketing information are hard to come by. It is often difficult and time consuming to derive explicit, quantitative data on market information. The approach followed in this study was to derive this information implicitly. Through the producer and trader interviews, we were able to derive a system for the collection of market information in the Volta Noire, for traders as well as producers. The general conclusion of this study is that small traders and producers make an effort to collect information on market supplies, more than prices in the markets that surround them. Only when the local markets cannot supply their needs do they seek information on other markets. Larger traders are better informed about prices and conditions over a greater range of markets because of their wider trading scope. However, the additional market information obtained by the long distance traders does not allow them to exert market power over the producers.

Producers obtain information on neighboring markets from fellow villagers as well as by periodically attending these markets. Small-scale traders obtain information on other markets from other traders, the vendeuses and the producer. Large-scale traders have a more complex system for gathering information. They spend a lot of time and effort collecting information on marketing conditions throughout the Volta Noire. These traders send advance teams to the region to scout the major sources of supply and the prevailing market conditions. From the information gathered by these teams, the trader determines the area to buy grain in, as well as the range of prices and commissions he will offer.

As large-scale traders from outside the Volta Noire have greater access to market information, they are able to take advantage of regional variation in market conditions. They do not limit themselves to a few markets in the region, but attempt to cultivate relations with producers in several areas. In this way, when their informants reveal that market conditions in one area are not favorable, possibly due to a production short-fall or increased trader competition, they can shift their resources to other markets in the Volta Noire. However, the ability to

do so may be limited by the producer-trader relationship. This relationship requires traders to develop long-term relationships with brokers as well as producers in the markets they wish to trade in. For the trader, this can be costly as well as time consuming. Therefore, he generally limits his activities to three or four major areas of the Volta Noire, and at any one time will deal in only one or two of them. Then, if the marketing conditions are more favorable in the other areas, he can easily shift to trading there.

This trading practice and use of market information is demonstrated by the trading patterns of the Bobo-Dioulasso traders. In normal years, these traders deal in the surplus areas, primarily around the cities of Solenzo and Nouna, as well as in the market of Djibasso. In these areas, they have developed a network of local assemblers and agents. However, when conditions in these areas deteriorate, limiting the amount of grain these traders can assemble in their regular markets, they shift to their alternative markets like those around the city of Dédougou.

While smaller traders have a more limited range of market information, they make decisions in a similar fashion. In local areas, small traders obtain information only for their immediate trading alternatives. They do not seek information on markets outside their trading range even though these markets may be relatively close by. Generally, these traders are satisfied with the quantity of grain they can assemble in their regular markets, and do not wish to incur the additional expense of opening new sources of supply. To do so may entail competing with existing traders and developing new relationships with other producers. Small traders claim that the cost of doing so is often not worth the benefits from the additional grain assembled. In other words, the marginal returns to the small trader from operating in new markets may be less than the marginal cost of doing so. Nevertheless, in years when the harvest in their regular trading areas is small, traders look into alternative markets. In these years, they find the margin between the buying and selling price high enough to cover the additional expense of trading in new markets.

Only when producers want to buy or sell grain on a large-scale basis do they seek information on market conditions outside their immediate

areas. This information, though, is more on capacity rather than prices. The limited opportunities to buy and sell large quantities of grain, in excess of 100 kilograms, force producers to look for markets capable of handling these volumes. Moreover, producers prefer buying grain for consumption in large quantities in order to assure themselves of ample supplies through the harvesting season. Rather than purchasing small quantities in local markets, producers in need of grain usually travel to markets in surplus areas where they know grain is available. In these markets, the producer generally buys 300-400 kilograms of grain in order to be sure of having enough grain to last through the following harvest. The producer survey shows that most of these purchases occur late in the post-harvest and in the pre-harvest period. Before then, these producers attempt to manage with what they have in storage, or what is available locally.

In summary, because of the high cost to traders of developing new markets, they rarely seek information on market conditions outside their regular trading areas. Large-scale traders have a larger trading range, and therefore have greater access to information. This, however, does not put producers at a grave disadvantage because the information sought is more on capacity than on prices. Likewise, producers only seek market information on other markets when they have large quantities of grain to buy or sell.

6.3.2. Seasonal Price Variations

A comparison of seasonal price changes between markets in the deficit and surplus areas is another possible indicator of market integration. In theory, one expects that grain prices in the surplus areas should be less than or equal to the prices of the deficit region plus the transfer costs between the markets. Without integration, the abundance of grain in the surplus areas would keep the price lower than in the deficit areas. However, once buyers from the deficit areas begin to purchase grain in the surplus areas, they cause an increase in market demand and, in turn, raise the surplus area's price. By arbitrating between the two markets, the deficit area buyer raises the surplus area's price up to the point where it equals the price in the deficit area, plus the

transportation costs. In addition, once the markets are integrated, price changes in one market should influence prices in the second market.

However, the seasonal price increase in the surplus area is greater and more unpredictable than in the deficit area. In addition, markets in the two areas do not seem to be related, because few producers or traders in the Volta Noire arbitrate between the surplus and deficit area markets. Only during the pre-harvest season do traders and some producers arbitrate between markets in the different areas, but this practice is not widespread.

Table 6.8 lists the average prices for grain in the two areas of the Volta Noire. It shows that there is almost no relationship to prices and price changes in the post-harvest period between the surplus and deficit areas. In the early post-harvest season, the average price in the surplus areas was 44.12 FCFA per kilogram, while in the deficit areas the average price was already 72.05 FCFA per kilogram. This price difference is much greater than the average cost of transportation, 10 FCFA per kilogram between the two areas.[8] Moreover, the average monthly price increase was higher in the surplus area, causing the average price in the surplus area to exceed that of the deficit area by the pre-harvest period. In December and January, the average price increase in the deficit area was 2% for the two months, while for the same period, grain prices increased by 33 and 9% in the surplus areas. Only in the latter part of post-harvest period do price increases in the deficit area begin to rise rapidly. In February, the average kilogram price for grain increased by 5 percent, and that figure rose to 9% by March. However, this still is exceeded by 9 and 22% grain price increases in the surplus area for the same period. As a result, by the beginning of the pre-harvest season, in March, the surplus area price was 86.76 FCFA per kilogram against 85.65 FCFA per kilogram in the deficit area. This tends to contradict the original theory that prices in the surplus area should remain lower than those in deficit areas. Moreover, the prices do not seem to move in unison, except during the latter part of the post-harvest season.

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[8]Calculation based on figures presented in the transportation cost analysis.

Table 6.8

SEASONAL PRICE FLUCTUATIONS[a]

FCFA per kilogram

Date Reported	Region	
	Deficit Area[b]	Surplus Area[c]
November 20, 1983	70.60	--
December 20, 1983	72.05	44.12
January 20, 1984	73.53	58.82
February 4, 1984	74.80	64.70
February 24, 1984	78.41	70.58
March 10, 1984	85.65	86.76

[a]Average producer level price.
[b]Based on direct observations and measurement in the Gassan market.
[c]Based on information provided by traders in the Solenzo and Yasso area markets.

University of Michigan, The Dynamics of Grain Marketing in Burkina Faso, 1986.

Thus, one may conclude that according to the analysis of seasonal price variation and the study of access to information, the grain markets in the Volta Noire are not integrated except possibly during the pre-harvest period. This anomaly is explained by traders' and producers' patterns of arbitrages between markets in the Volta Noire. As discussed, the long-distance trader is limited in the number of markets he can trade in due to the producer-trader relationship. As such, he tends to deal in the same markets, buying grain only from producers who feel comfortable with the trader. This practice tends to integrate certain areas of the Volta Noire with the trader's target market. The trader fixes a purchase price for grain which reflects the resale price in his target market, not the market conditions in other areas of the Volta Noire. As a result, individual areas within the region are tied more closely to markets outside the region. This is especially true in the post-harvest season, when long-distance trader activity is at its peak.

A further explanation for the lack of market integration, especially in the post-harvest period, is the way producers in the deficit areas purchase grain. Rather than purchase small quantities as needed, they prefer to wait and make one purchase of several hundred kilograms, in order to be assured of having enough grain to last through the following harvest. This means that they must purchase grain in markets with adequate supplies, hence, in the surplus areas. However, they prefer to wait until all local supplies of grain are exhausted before travelling to the surplus areas. As long as there are producers or markets with large-scale supplies in the deficit areas, they will purchase grain there. Once the large quantities are unavailable, they must turn to the markets in the surplus areas. This generally occurs in the end of the post-harvest period, resulting in a non-linear increase in demand for grain in the surplus areas at this time.

Trading patterns in the region can be summarized as follows. When local areas have sufficient quantities of grain, neither the traders nor the producers of that area must look elsewhere to buy and sell grain. However, as quantities of grain become scarce, especially in the more deficit areas, the trading patterns of market participants must change to meet the new supply conditions. In the pre-harvest period, producers and

traders from the deficit areas begin to trade in markets outside their local areas. They begin to look for a broader range of market information. As a result, markets in the two areas of the Volta Noire are more integrated during the pre-harvest period.

One difficulty with the results of this analysis is why neither the traders nor the producers arbitrate between the two markets earlier in the season. Some explanations offered by those interviewed relate to the producers' attitude about trading grain, and the limited capital reserves of regional traders in the deficit areas. During the post-harvest period, there is enough grain available in the deficit area to satisfy local demand, albeit at a higher price. As producers are concerned more about quantity and less about price, they do not see the need to travel to the surplus areas to buy grain. This attitude is part of a general belief that while grain may be sold for cash needs, it is not a commercial commodity. Few producers claimed they cultivated grain in order to sell all or part of their harvest. Rather, grain sales were made to cover an emergency cash need, and grain should generally be used for consumption. This attitude prevails in the producers' grain purchasing patterns as well. Large quantities are bought at once, regardless of the price, in order to assure the farmer and his family adequate supplies until the next harvest. The producer does not speculate with the price; rather he looks to reduce this uncertainty about his grain stocks.

Traders claim they do not arbitrate between the markets in the early post-harvest period because of their limited capital resources and the uncertainty about prices. When quantities of grain are available in their local areas these traders do not see the need to look elsewhere. To do so, they would incur higher marketing costs. Moreover, they feel that there is too much risk associated with arbitrating in the post-harvest period, as prices can fluctuate rapidly. The market survey of the Volta Noire does not confirm these trader apprehensions. The price difference between the two areas in the post-harvest period is certainly high enough to cover the added marketing costs of arbitration. Nevertheless, as this study was conducted only during the course of one marketing season, the average price differences may confirm the traders' apprehensions.

6.4 CHAPTER SUMMARY

In general, there seems to be much room to improve the performance of the marketing system in the Volta Noire. Trader profit margins, especially for the long-distance traders seem excessive. Although, they offer higher prices than regional or smaller traders, there is little evidence to show that producers in the Volta Noire receive their share of the benefits from higher consumer prices in the traders' target markets. While this may be a characteristic of marketing patterns during a poor harvest year, producers should still receive full value for their grain.

Producers generally have access to marketing outlets and these markets are spread across all levels of the system. Thus, producers selling grain at any level can expect adequate remuneration for their crop. However, producers selling smaller quantities have had to accept lower prices for their grain due to the added costs traders incur in bulking grain at these levels.

Finally, the level of market integration in the Volta Noire varies from the post-harvest to the pre-harvest period. In the earlier period, markets are integrated on a local level only. Producers do not look outside their immediate areas for better prices and conditions. Only when the market capacity is unable to handle the quantities they desire to transact, will producers look elsewhere. Moreover, during the post-harvest period, the trading patterns of the long-distance traders from outside the region reduce the level of integration within the Volta Noire, at the same time that they tie local areas into their target markets. During the post-harvest season, though, the producers desire to purchase grain for consumption in large quantities, and this tends to integrate the markets in the region. As producers must buy in the surplus areas they unwittingly arbitrate between the two areas of the region, and increase the level of market integration in the Volta Noire.

CHAPTER SEVEN

SUMMARY AND CONCLUSIONS

There are elements of competition and collusion in the grain marketing system of the Volta Noire. In the lower levels of the marketing system, there are many buyers and sellers in the marketplace, and neither has the opportunity to exercise market power. However, in the upper levels, the level of competition begins to decline as there are fewer traders capable of making large-scale grain purchases.

The major constraints to effective competition seem to be capital costs, producer-trader relationships, and the non-uniformity of weights and measures. In addition, these problems are aggravated by inadequate transportation facilities and the narrow focus of market information.

The capital requirement for trading at the lowest levels of the marketing system is not great. This is because the quantities traded are very small and traders turn over their capital quite rapidly. In addition, the practice of accepting commissions from larger traders allows the smaller traders to develop trading relationships with producers to further their own grain marketing business. At upper levels of the marketing system though, only traders with large personal capital reserves or access to borrowed funds are capable of trading in the marketplace. This tends to increase the level of trader concentration at the upper levels of the marketing system, and in some cases, the level of collusion as well.

However, increasing the availability of capital may raise as many problems as it solves. For one thing, even with the availability of added capital, some traders are reluctant to invest further in the grain markets. They claim, that the uncertainty about prices in the pre-harvest period reduces the potential benefits from cross-seasonal arbitration. Moreover, local traders find the cost of developing new markets may not be worth the expected returns. To develop new producer-trader relationships may be more costly than are the benefits from the added quantities of grain. Therefore, addressing the capital constraint should be done simultaneously with an improvement in the local marketing conditions.

Foremost on this list should be the reduction in trading uncertainties that cause producers to develop trading relationships, the availability of security stocks, and easy access to credit. Primarily through the village groups, OFNACER could increase the funds devoted to grain storage at the local level. The village groups provide some on-farm storage in cereal banks, but few cereal banks have been established in the surplus areas. As such, farmers in these areas have been reluctant to sell grain to the village groups or to outside traders for fear of not having any local supply of grain during the pre-harvest, hunger period. Improvements in the cereal bank program to include the surplus areas could generate increased sales, especially outside the producer-trader relationship.

As the credit service offered by the trader is more of a social function, it may be more difficult to overcome. One possible solution is to extend the village group's credit services to non-members of the village group. In the past, non-members could not obtain credit from the village groups; or if allowed, they had to pay higher rates. But many villagers in need of the village group's services cannot join because they do not have time to devote towards working the group's fields. As a result, they are denied access to such things as credit or easier terms for credit.

The standardization of weights and measure is also an improvement policy makers should not ignore. Standardization can reduce the possibility of manipulation which traders use to increase their marketing margin. Variations in the size and manipulation of measuring units is one of the major forms of market power traders have over the producer. In the lower-levels of the marketing system, the vendeuse changes the size of her louche between purchases and sales. The difference added by this variation can be as much as 30 percent by weight. At higher levels of the system, the size of the tine can also vary. In addition, traders at this level often will pay disproportionately lower prices for grain purchased in smaller units (e.g. the boite). Nevertheless, previous attempts at standardization have not been very successful.

The difficulty in enforcing these measures coupled with the producers' preference for measuring units they can trust, has made standardization rather difficult in the Volta Noire. The government does

not have the resources to effectively monitor all the markets of the region. Enforcement is also made more difficult by the fact that a majority of grain trading in the Volta Noire occurs outside the marketplace. In addition, producers have been reluctant to use measures they have little experience with in the past. Those producers who normally deal in louches didn't want to trade in tines and vice-versa. As such, to mount an effective standardization campaign, the government will have to expend more resources than may be feasible.

Outside of these internal constraints, there are other elements which impede the performance of the grain marketing system in the Volta Noire. Most notable among these is the inadequacy of the transportation network. This network is based on the transporter or "bush taxi" service and private trader vehicles. The "bush taxi" is the only means of "public" transportation. Individual drivers, carry passengers and cargo between points in and out of the Volta Noire. However, rates among the "bush taxis" are not competitive. A transport operates from his local area to a major center inside or outside of the region. Few transporters carry passengers or cargo on the same route. As such, the transporter usually has the power to set his own prices. This is especially true in the rural areas of the Volta Noire. Thus, the transporters can limit the level of market integration, by making communication among many rural areas both difficult and costly.

To compensate, some traders have found it less costly to use their own trucks, or to rent a vehicle together with several other traders. However, this has only served to reduce the level of integration in the region as traders tie local markets to markets outside the region. Therefore, the government should try to improve the access to rural areas in order to reduce the regional price disparities. This will also serve to reduce the level of producers' risk associated with selling grain to long-distance traders as transportation improvement will increase the producers' access to other surplus markets during the pre-harvest hunger period.

A final suggestion would be to improve the level and availability of market information. Due to the narrow focus of market information, the grain marketing system is less than perfectly integrated. As a result, price signals between markets may not be effectively transmitted, causing

a misallocation of resources in the marketing system, as well as in production. Therefore, policy makers should try to increase the level of information on markets outside the producers' immediate vicinity. Moreover, this dissemination campaign should also include information on availability of local grain supplies, so as to reduce the producer's fear of selling grain outside his local area.

Since the traditional grain marketing system is different from western-style markets, the results of this SCP analysis may be less than can be expected using the SCP framework. With the inclusion of some development oriented parameters, the analysis does show that the private grain marketing system in the Volta Noire can effectively move grain from the surplus to the deficit areas in the region and throughout Burkina Faso as well. Moreover, with additional private and public investment in the grain marketing system it can certainly be the most efficient one at moving grain and allocating resources in and out of the Volta Noire.

APPENDIX

AVERAGE NUMBERS OF TRADERS AND QUANTITIES TRADED PER TRADER IN THE MARKETS OF THE VOLTA NOIRE 1983/84[a]

Marketplace	Type	Level of System	Number of Traders	Average Volume of Grain/Market[b]
Highly concentrated Markets				
Gassan	Deficit	Wholesale	0-1	300 kg.
Tougon	Deficit	Wholesale	3	600 kg.
Tissi (village)	Deficit	Agent	2	9,500 kg.
Ban (village)	Surplus	Wholesale	1	30,000 kg.
Solenzo	Surplus	Assembler	2	150 kg.
Nouna	Deficit	Wholesale	2	300 kg.
Less Concentrated Markets				
Bena	Surplus	Wholesale	14	900 kg.
Djibasso	Surplus	Assembler	10	500 kg.
Djibasso	Surplus	Wholesale	7	1,200 kg.
Kouka	Surplus	Wholesale	8	1,000 kg.
Gassan	Deficit	Vendeuse	15	20 kg.
Gouron	Deficit	Wholesale	5	300 kg.

[a]Based on author's observations in markets.
[b]Grain sold per market day.

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