Pergamon

*World Development*, Vol. 22, No. 3, pp. 323–335, 1994

0305–750X/94 $7.00 + 0.00

0305-750X(94)E0021-B

# Cartels in an "Nth-Best" World: The Wholesale Foodstuff Trade in Ibadan, Nigeria

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**Summary.** — The purpose of this paper is to develop an understanding of the economic functions and associated welfare implications of the cooperative associations that dominate the wholesale trade in two staple foods. Questionnaire responses lead to several conclusions. Individual traders face incomplete markets, imperfect information, and little government-provided institutional and physical infrastructure. The associations are sophisticated "Coase-like" responses to this market environment: they focus on reducing their members' transaction costs, and hence the marginal private costs of trading. Thus it is likely that these associations enhance efficiency. We conclude with a critique of current government policy with respect to this trade.

## 1. INTRODUCTION AND LITERATURE REVIEW

Most of the marketing of staple foodstuffs in urban West Africa takes place within the "informal sector" of the economy. This is particularly true in Ibadan, the principal Yoruba city in western Nigeria and the second largest urban area in the country. Ibadan's informal-sector foodstuff traders operate in a world of incomplete markets for credit and transport, imperfect information, and little government-provided institutional or physical infrastructure. Individual wholesale traders have for decades responded to these features of their market environment by conducting their operations within the context of cooperative associations that function in many ways as cartels. Informal-sector foodstuff trading in Ibadan thus takes place in a setting that differs in significant ways from that of perfect competition: collective behavior in the marketplace has introduced a significant element of cooperation into the foodstuff marketing process.

Although some economists tend to employ the working hypothesis that cooperative activities are "market imperfections" that impose deadweight losses of economic welfare upon society, others have shown that the welfare implications of collective behavior in the marketplace must be analyzed on a case-by-case basis. For example, "Second Best" welfare theory — as pioneered by Meade (1955) and Lipsey and Lancaster (1956–57) and refined and utilized by many others, including Greenwald and Stiglitz (1986, 1988) and Stiglitz (1991) — points out that, depending on the specific market context, noncompetitive behavior may or may not be welfare-reducing. Helmberger (1964), in his classic study of farmer marketing cooperatives, reaches the same conclusion. He thus argues that theory alone cannot support a general policy stance toward cooperative

*We would like to thank John Strauss of Michigan State University, along with Felix Nweke and Karen Dvorak of the International Institute for Tropical Agriculture in Ibadan, for their guidance and help throughout the duration of our field research. Invaluable research assistance was provided by Yusuf Okalumbe of the University of Ibadan. John Strauss, James Halstead of Occidental College, Chris Udry of Northwestern, Julie Anderson of Stanford, Matthew Hyle of Winona State University, Alina Zapalska of Marshall University, and two anonymous referees provided numerous helpful comments on earlier drafts of this paper. We have also benefited from comments received during presentations at Marshall and at the 1992 convention of the Midwest Business Economics Association. Finally, we would like to thank the Richter Foundation for funding Ms. Luttrell's 1991 stay in Ibadan. Of course, none of the above should be held responsible for our conclusions. Final revision accepted: October 2, 1993.

activities: the welfare consequences of a specific instance of collective behavior can only be determined in light of the central "structural and environmental characteristics" of the relevant marketplace (p. 617).

Following Helmberger's advice, we undertake here a context-specific study of the economic functions, and the associated welfare implications, of the traders' associations — known in Yoruba as *egbes* — that dominate much of the wholesale foodstuff trade in Ibadan. More specifically, we focus on the activities of the *elubo* (dried yam) and *lafun* (processed cassava) wholesalers' *egbes*, in the attempt to discern their implications for social welfare. We conclude that the associations, which we analyze as responses to those features of the market environment that impinge upon the traders, may indeed create both private benefits for their members and net benefits for society as a whole. But present Nigerian policy with respect to the urban informal-sector foodstuff trade can be characterized as one of, on average, open hostility and harassment. In light of our analysis, such a policy stance may well be misguided and indeed welfare-reducing.

Since the late 1960s a tremendous amount of research has been done, both inside and outside of sub-Saharan Africa, that has had either a direct or indirect influence on the present study. Below we summarize these branches of inquiry by citing the seminal works in each area and reporting the key results that provide the context within which our work can be understood.

The modern research agenda with respect to the urban informal sector was essentially defined by Hart (1973) — in which the term "informal sector" first appeared in the literature — and the report of the International Labour Office (ILO) 1972 Employment Mission to Kenya. This latter study, indeed, galvanized the multilateral aid and development community into sponsoring a series of studies on this sector. During the next 20 years most of the research on the informal sector in urban Africa south of the Sahara was carried out under the auspices of the ILO, with the findings summarized and evaluated in several papers, monographs, and books (e.g., Sethuraman, 1981; ILO-JASPA, 1985; Trager, 1987; Turnham, Salomé, and Schwarz, 1990; Lubell, 1991).

The urban informal sector in Nigeria has been investigated extensively. The ILO, during its World Employment Programme effort of the 1970s, studied the informal sector in both Lagos and Kano (see Sethuraman, 1981). Informal economic activity in the city of Benin was examined in the mid-1970s by a geographer (Onokerhoraye, 1977), and Ekpenyong (1985) did extensive survey research on the informal sector in the cities of Port Harcourt and Calabar. Finally, Callaway (1967) analyzed activity within the informal sector of Ibadan itself. Despite the fact that Callaway's work predated both Hart's and the ILO Kenya Mission, it had the same focus and purpose as these later studies.

All of the above studies focused upon what Nihan (1980) first termed the "non-structured modern" subsector of the urban informal sector, which consists primarily of manufacturing (e.g., metalworking and woodworking), repair services (in particular mechanical and electrical repair), and construction. The common purpose of these studies was to identify the characteristics of and the constraints facing so-called microenterprises in this subsector. It was hoped that this information would then facilitate the design of financial and technical assistance programs that would enable the more "viable" of these production units to contribute to employment, incomes, growth, and development (Lubell, 1991).

These studies combined to reveal a dynamic and productive urban informal sector in sub-Saharan Africa that comprises 40–60% of the urban labor force. Despite the fact that the 1972 ILO Kenya Mission report — and in consequence many subsequent research programs — defined urban informal-sector markets *a priori* as characterized by ease of entry and perfectly competitive conditions, it was discovered that "in many instances entry is not especially easy" (Lubell, 1991, p. 17). The studies cited above — along with that of House (1984), which focused on the informal sector in Nairobi, Kenya — described significant barriers to entry in many informal-sector markets, traceable to lack of access to (a) suitable physical and institutional infrastructure (e.g., work premises, electricity, water, a properly functioning legal system that defines property rights and enforces contracts), and (b) formal-sector credit facilities.

In terms of employment, trading generally dominates the informal sector. Despite this fact, all of the above analysts, except House and to a lesser extent Onokerhoraye, explicitly excluded trading activities (whether wholesale or retail) from their samples. Most research efforts, indeed, were predicated upon the belief that such activities were "unproductive" and thus should not be targeted for microenterprise support programs.

Interestingly, Onokerhoraye, Ekpenyong, and Callaway all suggest that cooperative activities were prevalent at various times and in various subsectors of the informal sectors in Nigeria that they studied. Onokerhoraye (pp. 58–59) reports that many entrepreneurs, including "different types of traders," were organized into "guilds" in precolonial times that "controlled entry" and "in some cases [controlled] prices." Ekpenyong notes that some artisans marketed their products in Port Harcourt and Calabar through "cooperative societies." In Ibadan, cooperative activities in the informal sector were, in

Callaway's judgement, common in the 1960s: craftsmen in many trades operated in "loose cooperative groups" or "unions" that bought inputs jointly and shared work; associations of businessmen "pressed for the common good"; "unions" of traders engaged in "price fixing" and in cooperative efforts with respect to materials purchases and marketing (1967, p. 159).

Another branch of research relevant to the present study comprises the work of the economist Boserup (1971) and anthropologists such as Sudarkasa (1973), Hay and Stichter (1984), and Trager (1976, 1981, 1985, 1988). These analysts studied the economic activities of the Yoruba "market women" of western Nigeria. Each notes that urban Yoruba female foodstuff traders belong to market associations — Callaway's "unions," or *egbes*. Trager (1981) reports more specifically that all sellers of each commodity must belong to such an association. In addition to stating that the *egbes* represent the traders' interests outside the marketplace, Trager indicates (without further comment) that the associations act to "settle disputes" among their members.

The seminal studies of foodstuff marketing in southern Nigeria and Ibadan were carried out by Hodder (1967), Gusten (1968), and Jones (1972). Each study (and Hodder's in particular) focused on the anatomy of the location- and time-specific "markets" — known in Yoruba as *oja* — in Ibadan and its hinterlands. Gusten concerned himself with the foodstuff marketing chain, and traces carefully the flows of foodstuffs into Ibadan from rural areas. Gusten and Hodder together identify the specialized wholesale foodstuff markets in Ibadan, and describe rather than analyze the activities that take place within them.

Jones (1972) moves beyond Gusten and Hodder to develop, in his words, an "economic appraisal" of the efficiency of the foodstuff marketing system in southern Nigeria, in order to provide a context within which governmental interventions can be evaluated. He employs the model of perfect competition as a benchmark against which he evaluates the efficiency implications of the actual conditions under which trading occurs, and examines the behavior of the existing price series. He concludes that in general the foodstuff marketing process in southern Nigeria is perfectly competitive, although he cautions that "generalizations about African marketing may be misleading when applied to a particular commodity" (1972, p. 6).

Nevertheless, Jones notes the presence of what he calls "guild-type organizations" or "trade associations" to which many traders belong. Indeed, he calls them a "feature" of the marketing landscape in southern Nigeria (p. 108). Their "leaders are frequently honored and respected," and they "may restrict entry into a commodity trade to some extent and also regulate trading practices." But, given the "large size" of the markets in question and the numbers of traders involved, Jones concludes that these associations probably do not significantly alter the competitive nature of the foodstuff marketing process (p. 105).

In sum, many of the seminal studies on Nigeria and Ibadan identify —as we do —the existence of cooperative associations of traders, whether they are termed "unions," "guilds," or *egbes*. Collective behavior among traders in the urban informal sectors of Nigeria has thus been present for decades. But none of the studies cited above examines these associations in any direct way as economic entities pursuing their activities within particular economic and institutional contexts. Our work, therefore, contributes to each of the above research traditions in a substantive way.

In a broader context, this study can be viewed as contributing to the literature on what we can call "the private and social advantages of collective behavior in the marketplace." This literature consists of many diverse strands.[1] For example, it includes work on the coordination of economic activity within the firm and more broadly on the determinants of organizational structure (e.g., Coase, 1937, 1960; Arrow, 1964, 1969, 1974; Williamson, 1985, 1986; Ben-Ner, Brada, and Neuberger, 1993; Ben-Ner, Montias, and Neuberger, 1993). Another line of inquiry focuses on interfirm or interagent cooperation in developed countries (e.g., Arrow, 1974; the work by Brusco (1982) and Capecchi (1989) on the informal sector in the Emilia-Romagna region of Italy during the post-WWII period; Purvis's 1990 study of cooperative societies in 19th-century England and Wales). Finally, this literature encompasses studies of the social structures prevalent in Third World urban informal sectors that enable their members to minimize the risks of doing business in a low-income and uncertain world (e.g., Papanek, 1975; Doeringer, 1986; Jagannathan, 1987).

In the light of this broadly defined research tradition, the *elubo* and *lafun* wholesalers' associations in Ibadan can be viewed as the social structures within which cooperative arrangements between individual traders are developed and maintained. Within their *egbes*, individual traders acquire "social assets" (in the language of Arrow, 1974; Doeringer, 1986; and Jagannathan, 1987) such as loyalty, friendship, and trust. These assets, in turn, enable the members to segment the marketplace in significant ways, and hence to garner economic benefits that would otherwise be unobtainable. Specifically, association members dominate the wholesale distribution of *elubo* and *lafun* in Ibadan, because first, they control the traders' access to the urban *oja* in which these products are sold, and second, the *egbes* prevent nonmember traders from acquiring inventory, namely *elubo* and *lafun*, in the rural *oja* surrounding the city. Yet the associations do not regulate urban selling prices. Nor do they enforce sales quotas. Instead, the *egbes* concentrate on decreasing their members' transaction costs. In particular, the associations reduce the marginal private costs of trading by expanding their members' access to transport and credit facilities, collecting and disseminating to members information that individual traders find too expensive to acquire on their own, and providing, where the government does not, the necessary institutional and physical market infrastructure.

Thus it is possible that these *egbes* generate profits for their members, provide public goods for society as a whole, and enable more trading — at lower prices — to take place in the urban markets. In this situation, as in others cited by Jagannathan (1987), Brusco (1982), Capecchi (1989), and Doeringer (1986), there may well be no conflict between the pursuit of private gain and social welfare.

The plan of this paper is as follows. In section 2 we describe the informal-sector distribution system for *elubo* and *lafun* in Ibadan, and the market setting within which the urban wholesalers operate. We also describe the methodology used in our study, and discuss some of the central characteristics of our sample. Section 3 contains an analysis of *egbe* operations in both the urban and rural marketplaces. A more formal, graphical treatment of *egbe* behavior and its welfare implications is presented in section 4. We conclude by summarizing our results and discussing their implications for development policy.

## 2. THE MARKETING CHAIN, THE RESEARCH SAMPLE, AND THE MARKET ENVIRONMENT

### (a) *The marketing chain*

The process by which *elubo* and *lafun* are marketed in Ibadan today remains virtually unchanged from that observed by Hodder, Gusten, and Jones. Fresh yams and/or cassava are grown by farmers in the rural hinterlands of western Nigeria, and then sold directly to "primary wholesalers." These agents process the raw produce into *elubo* or *lafun*, bulk these products for sale, and supply them in the rural "periodic markets" (*oja* that meet at regular intervals — most often every fourth or eighth day — throughout rural Yorubaland). "Secondary wholesalers" from urban areas such as Ibadan enter these rural *oja* on the demand side, and purchase these products in "bags" (large burlap sacks that weigh 250–300 pounds when filled), the same units of measure noted by Hodder. The rural periodic markets are in general quite a distance from Ibadan: Gusten reported in 1966 that the average distance from these markets to the city proper was 90 miles (p. 153), and rural buying trips today often take days to complete. The urban traders thus rely on hired lorry transport — just as they did in the 1960s — to deliver their purchases to their stalls in the specialized wholesale foodstuff markets.

There are five of these foodstuff *oja* in Ibadan: from the largest to the smallest they are Bodija, Oritamerin, Owode Academy, Oje, and Sasa.[2] Each are what Hodder terms "day" markets: they are open seven days a week, including holidays, from sunrise to after sunset. These markets are typically jammed with customers and very noisy. As noted earlier, each market operates in a geographically distinct location, and the travel time from one to another, via bus, can often be as much as 90 minutes.

The secondary wholesalers sell *elubo* and *lafun* in these markets to both retail traders and consumers. Sales to retail traders are generally made in the aforementioned "bags." The typical unit of retail sale for *lafun* is the officially sanctioned *congo*, a plastic mass-produced bowl about six inches in diameter. *Elubo* is not sold retail in any standardized measure, but rather is stacked or piled into whatever the seller has by way of tins or baskets.[3] Retailers of both products sometimes grind them into flour, which they then sell in *congos*. A consumer, however, may purchase unground pieces of *elubo* or *lafun* and employ the services of one of the grinders in the marketplace.

In sum, the marketing chain for these products consists of the following linkages: farmer/producer —> rural "primary wholesaler" (processer/assembler) —> urban "secondary wholesaler" —> retailer or consumer. These products thus typically change hands about four times, and thus the marketing chain is essentially identical to that described by Gusten and Jones in the 1960s: Gusten notes (p. 69), and Jones concurs (pp. 90–95), that most staple foods "changed hands between two and a half and four times," with the average being "somewhat more than three turnovers."

### (b) *Characteristics of our research sample*

In this study we focus on the activities of the secondary, or urban, wholesalers. Our working definition of a "secondary wholesaler" is

> a person who goes to the rural periodic markets to buy in "bags" and who sells his or her product — to at least some customers — in "bags."

To ascertain how many of these traders operate in the marketplace, we operationalized this definition to read as follows:

> a "secondary wholesaler" is a person who has at least one "bag" in his or her storage pile.

Table 1. *Numbers of urban wholesalers in Ibadan*

| Market | Number of *lafun* wholesalers | Number of *elubo* wholesalers |
|---|---|---|
| Bodija | 80–90 | 70–80 |
| Oritamerin | 90 | 100 |
| Owode Academy | 15–20 | 2 |
| Oje | 8 | 0 |
| Sasa | 3 | 2 |

The numbers of urban wholesalers in each market, based upon two separate counts, are given in Table 1.[4]

The method we used to study the characteristics and the activities of these traders was ethnographic. During the summer of 1991 we gathered the raw data through a process of observation and both formal and informal questioning of *egbe* leaders and rank-and-file members. In addition, we were allowed to attend three meetings of the Oritamerin *elubo* wholesalers' association.

Our formal interviewing activity consisted of administering a questionnaire to 75 traders, a sample that comprised at least 10% of the *lafun* and *elubo* wholesalers in each of the five markets.[5] More specifically, 40 of these traders sold *lafun*, 30 sold *elubo*, and five were market-wide or city-wide association leaders who sold other commodities such as rice, beans, or onions. During these interviews we focused on each seller's personal history, membership in his or her *egbe*, and how the association influences his or her business. We also asked each wholesaler about his or her access to rural-urban transport, the ways in which he or she saves and obtains credit, and his or her long-term aspirations. Those traders in leadership positions were asked some additional questions that were tailored specifically for them.

In order to overcome the language barrier, we used both English and Yoruba versions of each question. Furthermore, we were able to administer the questionnaires with the aid of a translator who was an experienced field researcher at the International Institute for Tropical Agriculture (IITA) in Ibadan and fluent in both languages.

The typical trader in our sample is 41 years of age, female, and illiterate.[6] Family members (including most of her school-age children) and apprentices help her conduct her business. She has few (if any) physical assets, does not own a car or a bicycle, and wears inexpensive clothes. She works seven days a week, and thus has little leisure time.

She sells either *lafun* or *elubo* to both retail traders and consumers. About 50% of our sample said that they earn over half of their income from sales to consumers, roughly 10% of the wholesalers earn equal amounts of income from consumers and retail traders, and the rest earn most of their income from sales to retail traders. In rough terms, this selling breakdown is comparable to that reported by Jones in the late 1960s.

### (c) *The market environment: Salient characteristics*

We characterize the market environment within which the urban wholesalers operate as "Nth-Best," for the markets for credit and rural-urban transport are incomplete, information is imperfect, and there is little government-provided institutional or physical infrastructure.[7] As a result, the transaction costs (and hence the marginal private costs) of doing business as an individual, atomistic trader in this environment exceed those that would be incurred by a trader in a world in which information dissemination is perfect, markets are complete, and the government provides adequate institutional and physical infrastructure.

Access to rural-urban transport is problematic. Independent traders often cannot obtain such transport, due both to their "smallness" and to the fact that this service, heavily dependent upon flows of imported spare parts, is subject to periodic disruption. Moreover, on the occasions when independent traders can get transport, they are unable to insure their shipments against loss or damage.

The credit market is also incomplete. Indeed, most traders do not have access to formal-sector credit facilities: 59 out of the 63 respondents stated that they do not receive credit from commercial banks or other formal-sector institutions. The formal sector has several reasons for not extending loans to these agents. The typical trader is illiterate and cannot provide a bank with written business records, does not possess acceptable collateral (e.g., land or accumulated bank deposits), and demands small, short-term loans that a bank is often unwilling to provide. The traders, for their part, are generally uninterested in obtaining formal-sector credit, even when it is available.[8] Traders, usually with literate friends, must sacrifice significant amounts of time (and hence potential sales revenue) in order to travel to a bank's premises during official business hours and complete loan transactions.

These wholesalers, however, depend heavily upon credit. Access to this resource loosens a binding constraint upon trading activity: more credit enables a wholesaler to engage in more trading per time period because he or she is able to hire more apprentices, buy more bags, tins, baskets, and *congos*, make larger rural purchases, and cover the additional transport costs.[9] Increased access to credit, furthermore, permits members to insure themselves against short-term fluctuations in demand and/or cost conditions.

In Ibadan, as elsewhere, information is not a free good. Indeed, the *lafun* and *elubo* wholesalers face significant opportunity costs when collecting information on prices, costs, and other market conditions. The time required to travel between the urban markets and to and from the rural markets translates into lost sales revenue. Consequently, individual traders operate under conditions of imperfect information.

Finally, there is a pervasive lack of government-provided infrastructure. The authorities devote little or no time and resources to road maintenance, the building of drainage ditches, and other marketplace needs such as electricity and running water. The government also provides little in the way of institutional infrastructure. For example, in both the rural and urban marketplaces official judicial authority is often nonexistent or indifferent to criminal activity and marketplace disputes of all sorts, including those over property rights. In one respect the legal system cannot extend its reach into the informal sector, due to a lack of human, physical, and financial resources; in another respect it chooses not to, due to the lack of large accumulated surpluses that can be extracted via bribery and corruption. As a result, the wholesale foodstuff trade in Ibadan's informal sector is carried out in an "alegal" environment.

This situation, according to Hugon (1990), is typical of that prevailing throughout sub-Saharan Africa today. King (1990a) also emphasizes this fact, and points out (p. 143) that in Africa the state is in "increasingly obvious retreat from its earlier goal of providing services [such as] transport, education, and even law." Indeed, King argues that neither the state nor the "formal" ("modernized") sector of the typical African economy can even "aspire to provide" much institutional and physical infrastructure "in the foreseeable future" (1990a, p. 145).

## 3. THE *EGBES* AND THEIR ACTIVITIES IN THE MARKETPLACE

### (a) *The wholesalers' associations*

Commodity-specific *egbes*, including those for the *lafun* and *elubo* wholesalers, meet weekly in each of the five urban *oja*.[10] In addition, a larger umbrella organization, comprised of the leaders of all the commodity-specific *egbes*, operates in each market. There is also a citywide distributors' group — the Ibadan Foodstuff Sellers Association — that meets occasionally to address common concerns among the sellers of different commodities. Two of the objectives of this organization, as stated in its Constitution (pp. 2–3), are "to promote Unity and Solidarity among the business members" and "to coordinate and intensify their collaboration and efforts to achieve a better life."

As noted earlier, we were allowed to attend a few meetings of the Oritamerin *elubo* wholesalers' association. The members of this *egbe* elect their leaders, who (as in all the groups we studied) remain full-time traders, receive no compensation other than respect and prestige, and cannot impose their will upon the group, for all decisions are made by consensus. Meetings are held weekly, usually last from two to three hours, and begin and end in group prayer. During the summer of 1991 members chose to pay a special fee that went toward the purchase of matching outfits.

In these ways this *egbe*, like similar social structures cited in Papanek (1975), Doeringer (1986), Jagannathan (1987), and Purvis (1990), provides an arena within which the traders create and maintain a "group identity," or in the language of Ben-Ner, Montias, and Neuberger (1993), an "organizational culture." The social and religious unity clearly present within this institution, and in particular the respect accorded its leaders, indicate that social cohesion is strong. Furthermore, these social relations have value in the marketplace: this *egbe* (along with the others studied), translates its "social assets" into specific economic benefits.

### (b) *Barriers to entry*

The *egbes* have used their social assets to maintain, over at least the past two decades, a two-layered barrier to entry into the urban wholesale trade in *elubo* and *lafun*. In order to sell wholesale, a trader must first be able to obtain selling space in the urban *oja*, and second, must have access to the *elubo* and *lafun* made available for sale by the "primary wholesalers" in the rural periodic markets. But the *egbes* limit access to urban selling locations to members in good standing who pay both a registration fee and weekly dues. According to our survey responses, the associations seek further to insure their monopoly over urban sales by preventing nonmembers from buying *elubo* and *lafun* in the rural markets surrounding Ibadan: a photo-identification card issued by the Ibadan Foodstuff Sellers Association is, in general, necessary in order to make rural-market purchases.

The associations enforce these entry barriers by confiscating the *elubo* and/or *lafun* bought by nonmembers and by boycotting rural vendors who refuse to do business with *egbe* members on the associations' terms. The social cohesion among the members, forged so carefully in the context of the *egbes*, makes this enforcement activity (or "defense technology," in the terminology of Jagannathan, 1987) effective.[11] Indeed, during the summer of 1991 we encountered only one active nonmember wholesaler across all five urban *oja*, and she wished to remain anonymous for fear of being detected by the associations. Hence the rural wholesalers do not have a market for their products outside of the *egbe* membership, and confiscation activity does not take much time and effort. Furthermore, in the "alegal" environment within which these markets operate neither nonmembers nor rural vendors are able to obtain recourse from the *egbes*' decisions within the official legal system.

The associations exploit their favored access to the rural markets by specifying maximum buying prices and eliminating bidding among members for the products. Indeed, 47 of the traders in our sample stated explicitly that their association engages in these regulatory activities. Moreover, when we asked the sellers if their association has any "influence over buying prices," 49 of the 67 *lafun* and *elubo* wholesalers who answered this question replied either "much" or "some."

The *egbes* most often deal with members who flout the rural-market regulations, do not pay their fees and dues, or in general violate group rules, by fining them. Sometimes the *egbes* prevent such members from selling in the urban market for a period of time (e.g., through confiscation of product). Several rank-and-file members also reported that the associations on occasion revoke the rural buying privileges of rule-breakers for up to three months. Indeed, during the summer of 1991 one member of the Oritamerin *elubo* wholesalers' *egbe* was found guilty of "rudeness" to the Chair and subsequently had his rural buying privileges suspended. He violated this sanction, was reported to the association, and during one of the meetings we were allowed to attend, we watched as he pleaded his case before the group. The members refused to lift the buying restriction, and moreover fined him 100–200 Naira (a sum that represents 50–100 meals for many of the traders). As Doeringer (1986) notes, such sanctions levied within the group tend to have a feedback effect on group cohesion and hence strengthen the *egbes* in their efforts to segment the marketplace.

### (c) *Price and quantity regulation*

Throughout our questioning, we uncovered no evidence that the *egbes* attempt to regulate sales, and only weak evidence that they have influence over their members' selling prices.[12] Furthermore, at no time during the association meetings that we attended did the subjects of selling-price regulation and/or quantity-restriction arise.

Indeed, even if the *egbes* wanted to regulate their members' selling prices, or enforce sales quotas, there are ample reasons why they would be unsuccessful. For example, product quality can vary significantly from transaction to transaction. In addition, the measures used in the urban marketplace are only imperfectly standardized. Prices and quantities, furthermore, are influenced both by the bargaining that dominates the interactions between buyers and sellers and by the existence of personalized clientele relationships that are known in Yoruba as *onibara*, or "regular customer," ties. In this context, effective selling-price regulation and/or quantity restrictions would be very difficult, if not impossible, to enforce.

### (d) *Reduction of transaction costs*

The *egbes* utilize their "social assets" not just to create and maintain barriers to entry into urban wholesale trading, but also to reduce their members' transaction costs. More specifically, the egbes reduce the marginal private costs incurred by their members by:

— Expanding their access to rural-urban transport,
— Expanding their access to credit,
— Improving the flow of information in the marketplace,
— Providing both physical and institutional market infrastructure.

The *egbes* enable their members to obtain rural–urban transport by contracting with the transporters, through bargaining, for their services. These arrangements also provide for insurance: as pointed out by the Chair of the Ibadan Foodstuff Sellers Association, if any transporter loses or damages a member's bag(s), the association ensures that the transporter reimburses the member fully. Furthermore, the *egbes* act as "transporters of last resort" whenever there is a disruption in regular service. The association leadership, in these situations, devotes time and energy — time and energy that individual traders do not have — to seeking out transport alternatives.

The market associations also expand their members' access to credit. Indeed, one of the *egbes*' central functions is to provide emergency lines of credit for all members who pay their dues. This function, mentioned repeatedly by the leaders we interviewed, is spelled out explicitly in the Constitution of the Ibadan Foodstuff Sellers Association. "Objective Eight" (p. 3) reads as follows:

> The members shall coordinate and harmonize their general policies especially in the following fields: . . . assisting members financially or otherwise during times of difficulty and whenever necessary.

The "social assets" acquired by traders in the context of their *egbes*, furthermore, enable the members to group themselves into well-functioning "Rotating Savings and Credit Associations" (RoSCAs), institutions that are ubiquitous in the developing world, and that are known as *ajos* in Yoruba.[13] Association members have a great deal of information about each other and their business activities, and hence have little or no difficulty — even in the context of a relatively large *ajo* — in screening potential borrowers and monitoring credit usage. Furthermore, there is no enforcement problem, for the costs of default are significant. The borrower, in effect, puts up his or her social standing, business reputation, and business contacts as collateral.

*Egbe* activity also enhances the dissemination of information in the marketplace. The associations' regulatory activities in the rural markets and contractual arrangements with transporters enable their members to have greater information concerning rural purchase prices and transport costs, and hence to some extent prices in urban markets other than their own.[14] In addition, the market-wide and city-wide umbrella association meetings provide a forum for the sharing of information concerning rural and urban market conditions. In particular, they provide the commodity-specific *egbes* with the information necessary to plan and coordinate their activities in the rural marketplace and in the market for rural-urban transport: eight of the 10 association leaders who responded to the question "What do you discuss with the leaders of the other associations at your meetings?" replied "buying prices" and "transport costs/problems."

Finally, the market-wide "umbrella" *egbes* provide, where the government does not, both physical and institutional marketplace infrastructure. For example, membership dues finance night-time security services, road maintenance, and the construction of drainage ditches. During 1991, as it has done in the past, the Bodija Foodstuff Sellers Association paid 15,000 Naira (roughly \$1,070–\$1,500, at the range of "*bureau de change*" exchange rates we encountered during the summer of that year) to regrade the roads — none of which the government paves or maintains — in and near the market. Beyond these activities, the Ibadan Foodstuff Sellers Association regularly lobbies the local and state governments for general marketplace improvements.

The umbrella associations also exercise judicial power in areas where the local authorities do not. The local police, for instance, routinely refer cases of alleged theft and other petty crimes that occur in the markets to these groups. In addition, as discussed in section 3(b) the *egbes* themselves create and defend property rights for their members in the five specialized wholesale foodstuff markets of Ibadan. This activity translates into cost reductions for members because first, it reduces the time and effort individuals must expend, on a daily basis, to defend their market locations, and second, it makes rural buying trips less costly, due to the decreased probability of locational "expropriation" by other traders while members are absent from their urban *oja*.

In sum, we conclude that the *egbes* reduce the transaction costs, and hence the marginal private costs, associated with wholesaling *elubo* and *lafun* in the urban marketplace to a significant degree. The associations expand their members' access to transport and credit facilities. They also create, in the terminology of Arrow (1974), "information channels" through which "signals" as to market developments can be received, and they "coordinate" these signals through internal "communication channels." Thus the associations collect, process, and disseminate information that individual traders find too expensive to acquire on their own. Finally, the *egbes* provide their members with both physical and institutional market infrastructure.

## 4. A FORMAL ANALYSIS OF *EGBE* ACTIVITY

In this section we translate the above analysis into a more formal, graphical model that highlights some of the salient features of the urban and rural markets and enables us to show the conditions under which *egbe* activity contributes to social welfare. We demonstrate the possibility that when the urban traders form an association that both restricts access to the rural market and concentrates on reducing the transaction costs of its members, the urban market price falls, the quantity bought and sold in the city rises, and net social benefits increase.

Consider first a world in which information dissemination is perfect, markets are complete, the government provides adequate physical and institutional market infrastructure, and perfect competition prevails. The marginal private cost schedule that individual urban wholesalers face when trading either *elubo* or *lafun* — here considered to be one product, good "*x*" — in this world is denoted in Figures 1 and 2 as $MPC_1$. But, as discussed in section 2, the urban traders operate in a very different environment, one we have labelled as "Nth-Best," in which the transaction costs of doing business as an atomistic agent are significantly higher. The marginal private cost curve in this latter world, depicted as $MPC_N$ in these graphs, thus lies above $MPC_1$.

In Figure 1, which depicts market equilibrium in the absence of all *egbe* activity, the quantity bought and sold in the urban market is $Q_0$, as determined by the intersection of the urban market demand curve $D_0{}^u$ and $MPC_N$, and the equilibrium price is $P_0{}^u$. (Some loss of product occurs during transport, so $Q_0$ is less than the amount bought by the wholesalers in

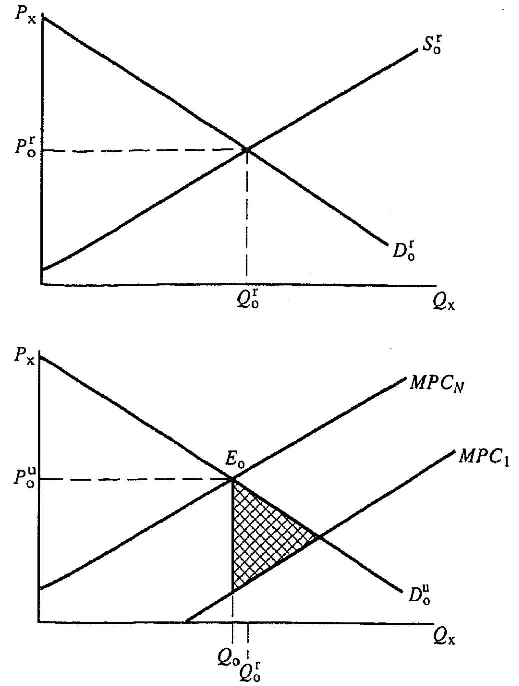


Figure 1. *The rural market for good x (top panel) and the urban market for good x (bottom panel) in the absence of all association activity.*

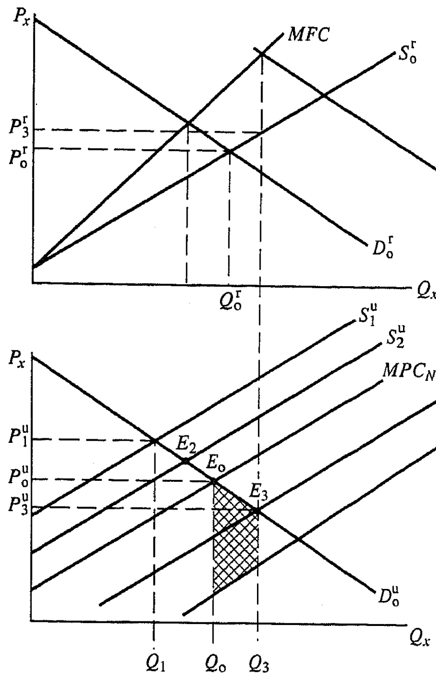


Figure 2. *Rural market (top panel) and urban market (bottom panel) equilibria when the traders' association is active.*

the rural market, $Q_0{}^r$.) The equilibrium outcome under these circumstances thus has associated with it a deadweight loss of economic welfare, which is represented by the shaded triangle in the bottom panel.

Suppose now that the urban wholesalers organize themselves into an association that effectively restricts access to good *x* in the rural market, i.e., that acts as a monopsonist. The *egbe* will reduce the quantity purchased in the rural market in order to equate the marginal factor cost of *x*, *MFC*, with its marginal revenue product $D_0{}^r$, as shown in Figure 2. The quantity sold in the urban market thus falls to $Q_1$ (some loss of product still occurs during transport), and the price rises to $P_1{}^u$, as determined by the intersection $D_0{}^u$ and $S_1{}^u$. This equilibrium outcome is, clearly, welfare-reducing.

Now let this *egbe* engage in the transaction cost-reducing activities described in section 3, while still acting as a monopsonist. The marginal private costs of distributing good *x* in the urban market thus decline. Consequently, $S_1{}^u$ in Figure 2 shifts downward. In addition, there is now no loss of product during transport. Several outcomes are possible. In the worst-case scenario, the association's monopsony activity dominates the reduction in transaction costs. The urban supply curve thus shifts, for example, to $S_2{}^u$, and the net effect of the traders' collective behavior in the marketplace is a decline in urban welfare: at the equilibrium point $E_2$, the quantity bought and sold is less than $Q_0$, and the urban market price is above $P_0{}^u$.

The decline in transaction costs, however, may be so significant that the urban supply curve shifts down to $S_3{}^u$. In this case, on a net basis the *egbes* are welfare-enhancing. The market equilibrium quantity at $E_3$ exceeds $Q_0$, the price received in the urban market ($P_3{}^u$) is lower than $P_0{}^u$, and the rural primary wholesalers sell more, at a higher price, than in the absence of all *egbe* activity. The shaded area in the bottom panel of Figure 2 represents the efficiency gain in the urban market in this scenario.

## 5. CONCLUSIONS

The results obtained in section 4 indicate that cooperation among firms in the marketplace, when focused to a significant degree upon minimizing the riskiness of conducting business as an independent entity, can be welfare-enhancing. Yet the above analysis should be considered but a first step in the process of determining the efficiency advantages of the wholesale foodstuff traders' associations in Ibadan, Nigeria.

The analysis in section 4, indeed, may significantly underestimate the welfare-enhancing capabilities of these cooperative associations, for three reasons. First, recall from section 2 that in the absence of the *egbes* individual traders often cannot obtain access to rural–urban transport, let alone insure their shipments against loss or damage. As a result, the actual increase in the equilibrium quantity bought and sold in the urban marketplace due to association activity, compared to the increase depicted in Figures 1 and 2, is probably much greater.[15] Second, the model of section 4 takes no account of the fact that, for any given amount of product bought and sold in the urban markets, social welfare rises in the presence of *egbe* activity simply because these groups provide, where the municipal authorities in Ibadan do not, public goods such as roads, drainage ditches, and a legal framework. Finally, in section 4 we take at face value our respondents' comments on the effectiveness of the associations' monopsony-enforcement efforts in the rural marketplaces. If these groups, contrary to their claims as recorded in our questionnaire data (and contrary to our informal observations), are in fact unable to exert significant control over access to *elubo* and *lafun* in the rural periodic markets, then it is even more likely that *egbe* activity results in additional net benefits for society as a whole.[16]

Despite the necessarily preliminary nature of our study, some specific policy recommendations can be derived. In recent years the Nigerian policy stance toward the urban informal sector as a whole — similar to the one prevailing throughout most of sub-Saharan Africa today — can be characterized at best as ambivalent, on average as one of "not so benign neglect," and at worst as one of open hostility and harassment (Lubell, 1991, p. 76; Trager, 1987). The Nigerian government, in sum, tends to vacillate between ignoring this sector as a whole, actively suppressing certain informal economic activities, and actively promoting other specific subsectors of the informal economy.

For example, in 1987 the government launched a heralded "National Open Apprenticeship Scheme" (NOAS), in the attempt to support the traditional informal-sector apprenticeship system (King, 1990b). But NOAS was targeted only at microenterprises in Nihan's "nonstructured modern" subsector of the informal economy, and thus was similar to the microenterprise support programs promulgated under the auspices of the multilateral aid community throughout the developing world in the late 1970s and early 1980s (as discussed in section 1).

When it has addressed itself to the urban informal-sector foodstuff trade in recent years, however, the Nigerian government has focused on suppression. For example, the national authorities launched a "War Against Indiscipline" in 1984, that incorporated a program of "environmental sanitation" in the cities (Trager, 1987). Streets were cleared of informal sector market stalls; workshops and sheds located along main roads were dismantled; inventories of traders and food vendors were confiscated. As late as 1990 the government was still waging this campaign: during that year the authorities demolished the historically largest and most important informal sector market in Ibadan — the Dugbe market — in order to make room for formal sector businesses such as commercial banks.

Moreover, the Nigerian government tends to look upon informal sector trading activity as something to be taxed. Indeed, one bit of irony resulting from the attention devoted to the urban informal sector throughout sub-Saharan Africa during the 1970s and early 1980s is that, in the face of mounting evidence that this sector is productive and dynamic, governments such as Nigeria's have come to view this sector as "primarily a source of tax collections and [hence] informal sector participants [have become] *tax evaders* [our emphasis]" (Lubell, 1991, p. 114).

To cite just one example of this attitude, a year or two ago the municipal authorities in Ibadan built a new foodstuff market (Bodija). But they devoted as few resources as possible to its construction (the infrastructure of this market was crumbling during the summer of 1991), and the market was laid out so as to make it easier to tax the activity within. Indeed, officials attempt to collect a tax on every single bag of produce that gets traded in Bodija, and in the other informal sector markets.

Our analysis indicates that such policies are precisely those the government should not implement, if it wants to generate increases in employment, incomes, and living standards for the majority of its urban citizens. Furthermore, to the extent that policy is influenced by "first-best" welfare analysis and attempts are made to promote competitive market conditions, societal welfare may be reduced. In the "Nth-best" world in which urban wholesaling takes place, the traders' associations — *egbes* — which indeed are responses to this particular environment, may well be efficiency-enhancing.

Therefore, it may well be optimal for the government simply to allow the *egbes* to continue operating as they do now, and focus instead on complementing the associations' activities by, for example, developing the communications network, paving and maintaining major roads and highways, making more foreign exchange available for the importation of spare parts for lorries, and improving the judicial system. In sum, if the government wants to improve welfare for society as a whole, it may be best for it to work with the *egbes*, in accord with its own areas of comparative advantage, and not against them.

## NOTES

1. In presenting the citations below, we make no attempt to be comprehensive, given the vast amount of work done in this general area. Rather, we seek here to acknowledge the material that has enriched our own work in a substantive way.

2. The market we identify as "Oritamerin" is really a conglomeration of several markets that Hodder labels the "Gege-Oritamerin-Oja Iba" marketing complex, and which Gusten terms the "Mapo Hill" marketing complex. This complex dominated the wholesale foodstuff trade in the late 1960s; its present ranking as the second largest foodstuff market in Ibadan indicates how similar the current foodstuff marketing process in Ibadan is to the process described by Hodder (1967) and Gusten (1968).

3. The *congo* was developed by the traders' associations in conjunction with the government, and can be used because pieces of *lafun* are small and uniform. *Elubo* pieces, however, are large and irregular. Hence the lack of standardized selling measures for this product.

4. These numbers are approximate because some traders might not have been present during the counts, due to illness or rural buying trips.

5. Not all of the 75 traders, however, answered each and every one of our questions.

6. To put the typical trader's age in perspective, life expectancy at birth in Nigeria today is roughly 50–55 years. With respect to education, the average number of years of schooling of the 58 traders who answered this question was 2.70. Indeed, 33 of these people said that they had no education at all.

7. Note that this does not make these particular markets especially "different" from other urban informal sector markets in Africa and the developing world: the key features of the Ibadan informal sector market environment that we isolate here are similar to those uncovered in much of the Third World urban informal sector work, in particular the African studies, cited and summarized in section 1.

8. Of the 15 traders who revealed to us their preferred source of credit, none indicated that it was a commercial bank.

9. When we asked the traders in our sample what they would do if they had "all the credit they wanted," 62 of the 63 respondents said "Expand the business/operate on a larger scale."

10. In some cases, wholesalers in the smaller markets belong instead to *egbes* in the larger markets. For example, the *lafun* traders in Sasa are members of the *lafun* wholesalers' association in Bodija.

11. Ben-Ner, Montias, and Neuberger (1993), writing in the "organizational economics" tradition, also recognize that social cohesion — which they discuss in terms of "organizational culture" — is critical for effective enforcement of the organization's "internal rules." They point out that the controllers of an organization may manipulate its culture in order to "modify self-interest" (the root of so-called agency-managerial problems) as part of their attempt to maintain effective enforcement mechanisms (pp. 211, 222).

12. We asked the wholesale association leaders in our sample if the *egbes* tried to "keep prices the same among [their] sellers." In response, the leaders claimed only that sometimes they required their members to use standardized measures when selling, and that they did not regulate prices directly. Furthermore, the traders in our sample were asked if their *egbe* had any "influence over selling prices." Thirty-five percent of the respondents said "none," 22% answered "little," 30% replied "some," and only 14% said "much." Two points must be made about the traders who answered "some" and "much." First, it is possible that these respondents were confusing wholesale and retail prices. Occasionally the retail price for a *congo* of *lafun* was set daily, and 81% of this subgroup sold at least some *lafun* on a retail basis. Second, these traders may have answered as they did on the basis of the *egbes*' success at standardizing their measures and influencing their costs of production, and hence their responses may not reflect any direct attempt at all by the associations to control selling prices.

13. These RoSCAs are groups of people who contribute regularly (usually weekly) to a fund that is distributed as a lump sum to individuals in the group on a rotating basis. Forty-three of the 63 respondents said that they belonged to an *ajo*. The sizes of these groups ranged from 10 to 100, with the average size being 29 people.

14. Of those traders who said that they do know the prices of their products in other markets, 25% based their knowledge on the dissemination of cost information that results from the associations' exertion of market power in the rural areas.

15. More generally, given the data at our disposal, we were unable to quantify the extent to which the presence of the *egbes* increases the availability of *elubo* and *lafun* in the urban markets simply due to their contractual arrangements with the transporters.

16. We were unable during our field research to collect

any primary data on the structure of the rural periodic marketplaces. A more complete study of the efficiency advantages of the urban *egbes* would, of course, have to include an analysis of such data. Future research visits to Nigeria and Ibadan are planned, therefore, in hopes of correcting this deficiency.

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