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TRADER FINANCE IN CHAD AND NIGER: CASE STUDIES FOR AGRICULTURAL AND PASTORAL PRODUCTS

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TRADER FINANCE IN CHAD AND NIGER:
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I. INTRODUCTION

The production of crops and livestock occupies the majority of Nigeriens and Chadiens. Most of the livestock and a smaller but increasing proportion of the agricultural products are traded, usually in the informal sector.[1] The efficiency of marketing these products determines in part the benefits to the producer and thus helps determine the standard of living of a sizable proportion of the population. At the other end of the marketing chain, the consumer also benefits from marketing efficiency through lower prices in the consumption market.

Market efficiency is determined by a number of factors, such as transport costs, the degree of competition, and the availability of price information. More importantly from the point of view of this study, it may be limited by a lack of credit, to the extent that this restricts the traders ability to benefit from profitable commercial opportunities which they would have undertaken if credit had been available. It is important not only that an economy be monetised to allow trade to take place in the absence of a co-incidence of wants and thus transcend the constraints of barter, but also that the need for immediate pay-

[1] A recent DAI report on suggests that the proportion of the grain grown in Chad which is marketed has risen from about 10 percent in the early 1970s to about 20 percent today. (DAI c1989: 35-37)

ment for goods sold should be replaced by more flexible payment scheduling. The availability of credit opens new trading opportunities and thus potentially increases the benefits from trade and the efficiency of the market.

Banks often fulfill this credit function, along with opportunities for rewarding saving. In both Niger and Chad the formal banking sector is rudimentary and in poor health. It is in no position to play this role. By default, the onus of providing financial intermediation falls to the informal sector.

Formal credit servicing agricultural and livestock <u>production</u> in the Sahel has been well documented. Public organisations (e.g. projects and development banks) and, to a lesser extent, private banks granting such credit to producers have been keen to evaluate the *ex post* effectiveness of their loans. Informal credit to aid production has been less well studied. Formal credit for <u>trade</u> in these products in the Sahel has received less study. The public sector tends to avoid trade finance. Private sector credit is often available for non-agricultural trade. It may not be subject to rigorous *ex post* evaluation, however, and results are not synthesised in widely circulated literature. Even less is known about the role of informal credit in trade. This is all the more true for Niger and Chad, among the poorest of the Sahelian countries.

There is an important gap in our understanding of the way in which informal credit is made available and then used to finance trade in agricultural and pastoral products in Sahelian countries. This report takes the first steps towards filling this gap.

Scope and Method of the Study

The principal source of information for this study was interviews with traders of agricultural and livestock products in market centres in Niger and Chad. Most traders interviewed were wholesale traders who had more complex financing needs than retail traders. The scale and diversity of their operations and their geographical range varied considerably.

Full exploration of the financial system calls for an emphasis on the informal sector. This requires an appreciation of the cultural, as well as the economic, dimensions of financial intermediation. A case study approach was used on the subject matter, given a lack of prior knowledge of the parameters to be encountered and the limited time available. Interviews were done over a two-week period: 18 carried out in Chad and 19 in Niger. Written notes were taken during the interviews that were administered through local interpreters.

Those interviewed were asked questions about their:

- business activities (goods traded, size of business, other sources of income, seasonality of activity, geographic scope, etc.)
- sources of finance (own savings, loans from banks or development projects, private loans, savings groups, etc.)
- uses of finance (beyond their own trade, principally the loans they made available to others)

Follow-up questions varied according to individual circumstances, but often dwelt on the role of interest in a Muslim society, strategies for dealing with bad debt in the traditional milieu, flows of credit along market chains, and reasons for mistrust of formal banking.

Additional information was gathered from USAID missions, banks, government ministeries, development projects and co-operatives, and from the Sahel Rural Finance Library at Ohio State University.

II. INFORMAL CREDIT AND TRADE

Tables 1 and 2 display the interviews from which the information for this study was gathered, disaggregated by the market in which the interview was performed and the product(s) traded by the interviewee.

A. Markets

Interviews were carried out in three markets for agricultural and livestock products in Chad and five in Niger. The Chadien markets were:

- **N'Djamena,** the capital and major consumption centre, with a diversity of different types of product on sale (7 interviews)
- **Bongor,** a provincial capital of 20,000 inhabitants in the higher rainfall Sudanian zone near the Nigerian border and centre of a relatively rich agricultural zone (8 interviews)
- **Massakory,** a major Sahelian livestock market on the border between the livestock-rearing and millet-growing regions (3 interviews)

Table 1
Details of 19 Nigerien Interviews by Market and Products Traded

Product	Tessaoua	Maradi	Madaoua	Galmi	Birni N'Konni	Total
Livestock Sector						
Cattle	2	1			1	4
Small ruminants	1	1			1	3
Skins and hids	1	1	1			3
Meat		3				3
Agricultural sector						
Cereals						
Groundnuts	2	4	1	1	2	10
Cowpeas						
Onions				1		1
Fresh fruit		1				1
Dates		1				1
Tobacco					1	1
Total	6	12	2	2	5	27

Note: Some traders dealt in more than one product.

Table 2
Details of 18 Chadien Interviews by Market and Products Traded

Product	N'Djamena	Bongor	Massakory	Total
Livestock sector				
Cattle			1	1
Small ruminants		1	1	2
Skins and hides	1			1
Meat	1	1		2
Agricultural sector				
Cereals etc.	2	1	1	4
Groundnuts		1		1
Onions etc.	1	2		3
Dates	1			1
Fresh fruit		1		1
Vegetables	1			1
Cola nuts		1		1
Total	7	8	3	18

The Nigerien markets were all in the agricultural zone, within 50 kilometres of the Nigerian border:

- **Maradi**, Niger's second city and its major entrepot for goods imported from Nigeria (13 interviews)
- **Birni N'Konni**, a local capital located within five kilometres of the Nigerian border and the second most important entrepot for Nigerian imports (2 interviews)
- **Tessaoua** and **Madaoua**, local capitals located in relatively rich farming areas (2 interviews and 1 interview, respectively)
- **Galmi**, a village famous as the centre of Niger's major onion production zone (1 interview)

1. Products Traded

Cereals, principally millet and sorghum, dominate the agricultural products traded by interviewees. Many such merchants also dealt in cowpeas and sometimes in groundnuts. Other commodity groupings were onions (together with garlic, tomatoes and peppers in Chad); fresh fruit and vegetables; stimulants (tobacco and kola nuts); and dates. Livestock product traders dealt mostly in live animals: cattle and small ruminants (sheep and goats). Butchers bought animals and sold meat, and skins and hides. There were also traders of skins and hides.

The small, non-random sample included merchants in both countries who exported livestock on the hoof, skins and hides, and onions. Nigerien interviewees also exported cowpeas. Cereals were the major commodity which interviewed traders were importing into Niger. Traders interviewed in both countries imported fresh fruit. One trader from Niger imported tobacco and one from Chad imported kola nuts. Most items traded by those interviewed were traded at least inter-regionally within both countries, except meat which was consumed near to the point of slaughter.

In both countries, seasonality affects the commercial activity of most traders, changing either the quality or quantity of goods they sell at different times of the year, with consequent effects on prices. Cereal harvests in October greatly change the availability of grain, and harvests of dry-season vegetables and irrigated cereals provide a similar outcome later in the annual cycle. During the summer rainy season traditional herders move north to temporary pasture away from many of the livestock markets, thus reducing supply to the market. In Chad, many of the roads, even between major towns, are subject to flooding throughout the rainy season, leading merchants to increase their stocks beforehand in anticipation.

2. Trader Profiles

Information on the scale of traders' scale of business came from a variety of indicators: physical or financial turnover, size of declared or visible current stocks, ownership of lorries, maximum credit granted, reputation, political position (e.g. head butcher). Different indicators were available for different traders, so no systematic means of direct comparison are available. However, the relative scale of their trade may be roughly inferred. From this incomplete comparison, the groups of traders from Niger and Chad appeared broadly comparable, with perhaps a higher proportion of smaller traders in Chad than in Niger.

Particularly in Niger, traders often bought and sold a range of agricultural or pastoral products (or both). This commerce in agro-pastoral products was sometimes complemented by a wider portfolio of economic activity which included one or more of: trade in manufactured products or building materials, agriculture, livestock raising, and lorry transport. In general, the larger a trader's capital base, the more diversified his business.

Some efforts were made to ensure a diversity of trader interviewed. In particular, steps were taken to include non-Muslims and women, with limited success. All interviewees were Muslim, despite the existence of significant minorities of Christians and animists in Chad. Muslims heavily dominate trade in both countries. Most of those who were rich enough had made the pilgrimage to Mecca and benefited from the title of Alhaji (men) or Hajia (women). This title bestows on its bearer a greater respectability which carries over from religion into business. Only three women were interviewed. This low proportion may not be unrepresentive of their share in total Sahelian trade: on average, they operate on a much smaller scale than men. They are found more in retail than in wholesale activity. In each country only one of the interviewees was less than thirty and most were over forty years of age. The Nigeriens were all Hausa or Hausified Fulani. The Chadiens were mostly Arab and Borno. Ethnicity did not appear to be an important determinant of business behaviour in the markets visited.

In Niger no one had access to bank credit. Six (32 percent) retained bank deposit accounts. They were the largest traders. Some had accounts to enable them to deal with formal sector organisations. For others they remained as anachronisms dating from the days when they had bank credits, one condition of which had generally been to keep compensating balances in an account with the bank which had issued the credit. Two claimed that they had bank accounts when business had been better, but that they had since closed them.[2] One trader kept a post office savings account. The majority had neither bank nor post office accounts.

In Chad, the situation was worse. Only three traders (17 percent) kept bank accounts. None reported keeping a post office savings account. The reasons for having or not having bank accounts were much the same as in Niger. Traders also stated that formal credit was not available in Nigeria. and that Nigerian banks were pursuing their debtors, as in Niger and Chad. The issue of whether Nigeriens or Chadiens would be eligible for formal Nigerian credit if it were available was not discussed.

B. Credit and Confidence

1. Lack of Confidence in Formal Banking

The Chadian banking system does not inspire confidence. The civil war brought the system to bankruptcy (Stallsmith 1986). After the war a moratorium was declared on withdrawals of deposits. Until now those who had made deposits before that time have effectively lost the use of these funds. It is also claimed that there is no confidentiality of account information: influential people and organisations can thus be privy to a depositor's

[2] If these checking accounts are not being used they are a net drain on a trader's resources because they do not pay interest and there are charges for transactions.

financial condition. It is alleged that the government removes funds from private accounts on the basis of such information. More obviously, customer service in branches is painfully slow. These problems apparently afflict the entire banking sector. There is also a post office savings bank, which offers 2.5 per cent annually on deposits in its savings accounts. It is not popular with traders.

Niger has been spared a civil war but its banking system is not in much better shape. It is no longer making loans. The BDRN, the national development bank, is being restructured, and it is trying to obtain and sell off the collateral for its many bad debts. In this context, private sector traders are left to their own devices. Luckily, they have their own financial system which predates the formal banking system and is built on stronger foundations.

2. Long-Distance Trading Communities

Informal inter-trader credit is accorded on the basis of confidence. Small, local economic actors with little knowledge of long-distance trade will therefore tend to allocate (or request) credit locally. In contrast, those with experience in long-distance trade both give and receive credit beyond their immediate locality, indeed across national boundaries. Confidence between two parties separated by a thousand kilometres may be strong if they belong to the same trading community. The prime example of this is the Hausa trading community. The Hausa language is the lingua franca of Niger and and much of Nigeria because Hausa merchants have built up trade links throughout both. Social and economic linkages tie Hausa trade routes together, particularly within Niger and northern Nigeria, but also in southern Nigeria where "expatriate" communities of Hausa traders exist to integrate long-distance trade into the local economies. To a lesser, more diffuse extent, Islam forms another community of which the Hausa community forms a part. An Arab from N'Djamena may be more inclined to grant credit to a Hausa (or through a Hausa as intermediary) in Lagos than to a Christian in Jos (though Jos is geographically in northern Nigeria).

A Maradi cereals importer stated that commodity credit is sometimes available in Nigeria. When Nigerian traders perceive that cereals are moving quickly on the Maradi market, they extend credit for up to one third of a lorry-load of cereals to the importer. The in-kind credit is for two to three days and carries no interest charges. A cereals importer based in Birni N'Konni said that about 30 percent of his cereal imports from Nigeria were financed by credit from Nigerian cereal merchants. A Birni N'Konni tobacco importer receives a 40-day credit from Nigerian traders on three-quarters of his shipments. Reciprocally, another Maradi trader grants credit for up to a week to Nigerians for part of the loads of cowpeas they export from Maradi. The implicit interest charged varies from four to eight percent. These examples may be considered to fall into a "regional credit" category because, although the credit extends across an international boundary, it goes no further south than Zaria and remains within the Hausa region which spans that part of the Niger-Nigeria boundary.

Credit linkages from livestock markets in Niger and Chad to markets beyond Hausaland in southern Nigeria are built on the confidence generated by the Hausa trading community there. These are dicussed in section III.C. Similar linkages exist between the onion-producing region of southern Tahoua Department and the onion markets in Bouaké and Abidjan in Côte D'Ivoire.

C. Different Types of Loans

Much credit is used in business circles in both countries and will be discussed in some detail. However, cash sales are also common, and indeed are preferred by most traders. Many sales are hybrids: part cash, part credit. Data collected do not permit inferences about the proportion of trade financed by credit rather than cash.

Unconstrained by formal regulations, the informal financial system provides a wide range of loans tailored to meet the needs of borrowers and lenders. Money is lent with or without interest, and on a profit-sharing basis. In addition, commodities are advanced for future credit.

There are two main types of credit available to finance trade in agricultural and livestock commodities. The first is an advance of money, usually to enable the borrower to purchase a shipment of goods. The borrower is then free to choose where he buys the goods. In this case, repayment occurs when the goods have been sold. Repayment of the principal may be accompanied by some extra payment to reward the lender for the use of the money. The second type of credit is in the form of the commodity itself. This is tied credit, in that it gives the borrower no choice of where he obtains the goods. The value of the goods agreed on by the borrower and the lender may be higher than the price which obtains for cash sales.

Traders of agricultural and livestock commodities make loans to finance others in their line of business. However, they also make loans to finance other types of business and for consumption. A N'Djamena grain merchant gave the following as the functions which his credit financed for his debtors, in decreasing order of importance: agricultural commodities, socio-religious ceremonies, housing construction, and cultivation.

1. Family Assistance and Reciprocal Loans Without Interest

Between close friends and particularly among members of nuclear and extended families, interest-free loans are the norm, though loans with interest are possible. An interest-free loan may be used for investment in fixed capital, e.g. a plot of land or the house built on it, or for a vehicle. It may be used as working capital to build up business. It may also be used for consumption ranging from food in times of hardship to marriage ceremonies in times of plenty. Family members may borrow without interest or a defined term to do anything, said an onion trader from Galmi. Indeed, sometimes traders make interest-free loans without knowing what the money is to be used for, though this is most likely when the borrower is a nuclear-family member or a very close friend, and when the sum is relatively small.

Interest-free loans are granted to those to whom one has obligations as a patron to a client. Although only the principal must be repaid, the borrower is expected to make at least a token gesture of some sort to thank the lender. To the extent that the value of this gesture falls short of what the lender could have earned with the money in the marketplace, the borrower remains socially indebted to the lender. His client status is reinforced. There is, for instance, no hesitation among friends and family to finance a man's wedding to his first wife. No questions are asked.[3] Such a loan is seen as cementing the social underpinning of trade relations. This was the reason a Bongor butcher gave when he said he would rather finance a wedding than commerce. Such activities are better classed as social investment for future economic returns rather than as consumption loans.

For family members and friends who look forward to a future flow of credit from a trader who has given them credit without interest, there is every incentive to repay the loan quickly and with more than a token gesture. However, despite this, some traders explicitly stated that they did not expect even the principal on particular helping loans to be repaid. Either they had already resigned themselves to converting bad debts into gifts or they had meant the loans as a gifts in the first place.

Whatever the circumstances, once granted, this sort of loan is the least policed. The lender trusts the borrower who may be an heir who in time would have inherited the money anyway. Giving to those poorer than oneself is one of the five "pillars" of Islam. In traditional Islamic Sahelian society one may be shamed for hounding a dependent member of his family to recover a loan. For all these reasons, many interest-free "help" loans evaporate as the trader builds up an extended family circle of dependents.

Not all interest-free credit is bound up in reinforcing a hierarchical structure of economic power. It also plays a role in peer bonding. Interest-free loans are granted reciprocally between traders of a roughly equal status who have built up trust over time. As long as their needs for loans do not coincide in time, they lend back and forth to each

[3] However, men are expected to finance marriages to subsequent wives themselves.

other, repaying only the principal. For example, a Maradi livestock trader had recently lent a trader friend 27,500 CFA without knowing what his friend intended to do with it. He expected full reimbursement without interest, though he did not know when that would occur. He expected to be able to call on this friend for a similar favour in the future. The net result of mutual help or reciprocal loans without interest is a web of social credit which provides the traditional structure within which the more formal finance of trade takes place.

2. Money Lending with Interest

Moneylending with explicit interest occurs at the other end of the spectrum of acceptability in Chadien and Nigerien business circles. Credit with interest calculated as a percentage of the principal lent, however little, is regarded as usury in Muslim society: it is forbidden in the Koran. Moneylending is thus a sensitive subject. It was not possible to interview a moneylender in either country. However, there were enough second-hand accounts to suggest that, at least in towns of over 20,000 inhabitants, moneylending is practiced. This appeared to be the last choice of financing for potential borrowers who could not secure credit elsewhere. The lenders were apparently Muslim in all cases.

3. Loans with Profit Sharing

The most common large business loan encountered was the profit-sharing loan of cash between traders. Here the opportunity cost of capital is recognised: recompense must be made by the borrower for the lost profit-making possibilities which the lender forgoes. The profit of the business venture partially financed by the lender is divided between borrower and lender. This circumvents the problem of the Islamic proscription on lending money with interest. Formal Middle Eastern banking also uses this solution. The way in which the profit is to be split is negotiated between the interested parties. In most cases, the lender's fraction of the profit is a third, a half or two-thirds. The last is the most common. In other words, the lion's share of profit more often goes to capital than to enterprise.

When asked how he decided what proportion of the profit he would bargain for, one trader smiled and said that if he believed a potential borrower would honestly declare the profits made with his money, he would ask for one third. If he did not have faith in his honesty, he would insist on two-thirds. We must remember that in an environment without formal accounting, much financial evaluation is subjective, there being few objective details to analyse.

In one interesting case, a large Maradi cattle trader said that, as a lender, he splits the profit into three. He and the borrower each take one third. The remaining third is put into an "escrow account", managed by the trader, to be used to compensate him for any losses incurred when they do business together in the future. Whatever remains of this insurance fund can be cashed in by the borrower once he is rich enough to operate on his own.

Sometimes, when the the lender is satisfied with the level of profit earned on his money, he immediately relends the money to the borrower (presumably on similar terms and conditions). In this way the loan may be perpetuated for years, with periodic evaluation of the portfolio performance. Such arrangements may be compared to a joint venture in the formal sector. The lender is still a lender, rather than a shareholder, but the distinction is more semantic than real.

4. Commodity Loans

Commodity loans are credits where either the loan itself or the repayment of the loan is made in kind, rather than in cash. They are given to cement links in a market chain between seller and buyer. They mainly flow from seller to buyer, down the market chain. Occasionally they flow from buyer to seller, up the market chain. Commodity loans may involve implicit interest, i.e. the price at which the commodity is valued for the purposes of such a loan may differ from the price assigned to it for a cash sale of the same commodity occuring at the same time. This implicit interest is not condemned by Islam.

Sellers advance consignments of goods to other traders for resale to third parties. The seller either waits at the point of resale until the resale is completed and he is reimbursed from the proceeds. Alternatively, if he has enough working capital, the seller may return to his source to buy a new consignment, and receives payment for the first as he hands over the second on credit. For example, when lorryloads of onions arrive from Abéché in N'Djamena market, the traders who bring the onions may receive cash for the entire shipment from the market's onion wholesaler or, when the wholesaler has a liquidity crunch, for only some fraction of it. In the latter case, the remainder is paid in about a week, if the trader chooses to wait. In the meantime, the wholesaler sells sacks of onions to retailers in the market, some for cash and some on five-day credit. When the retailers repay, the wholesaler is then able to reimburse the credit obtained from the traders. The traders do not charge interest on the loan (i.e. the cash price and the credit price are the same) because sometimes the wholesaler lends them money without interest. Thus this is also an example of a reciprocal interest-free loan between traders who have built up mutual trust over time.

Commodity loans may also be made directly to trusted consumers. The best example is the civil servant who goes directly to the wholesaler to buy a sack of millet on credit until he is paid at the end of the month.

Less commonly, a buyer advances money to potential sellers to oblige them to furnish him with goods which he wants. The only example of this was found among traders of skins and hides but, interestingly, this arrangement existed both in Niger and Chad. The traders advance money to butchers who are notorious for working on credit. When a butcher slaughters a ruminant, he hands over the skin to the trader, thus repaying part of the outstanding loan to the trader who supplied the loan. In the case where the butcher has obtained loans from several traders he pays them off in the order in which he received them. In such a system, a skins and hides trader who does not give credit to butchers has less secure access to a guaranteed flow of skins and hides than one who does.

III. FINANCIAL FLOWS AND COMMODITY TRANSACTIONS

Only one trader interviewed neither received nor granted informal credit in one form or another. He was a small N'Djamena date trader who was supplied sack by sack from his hometown of Faya Largeau in the Sahara Desert. There was, he explained, no wholesaler in the date trade, and thus no one with the working capital to finance sales on credit.

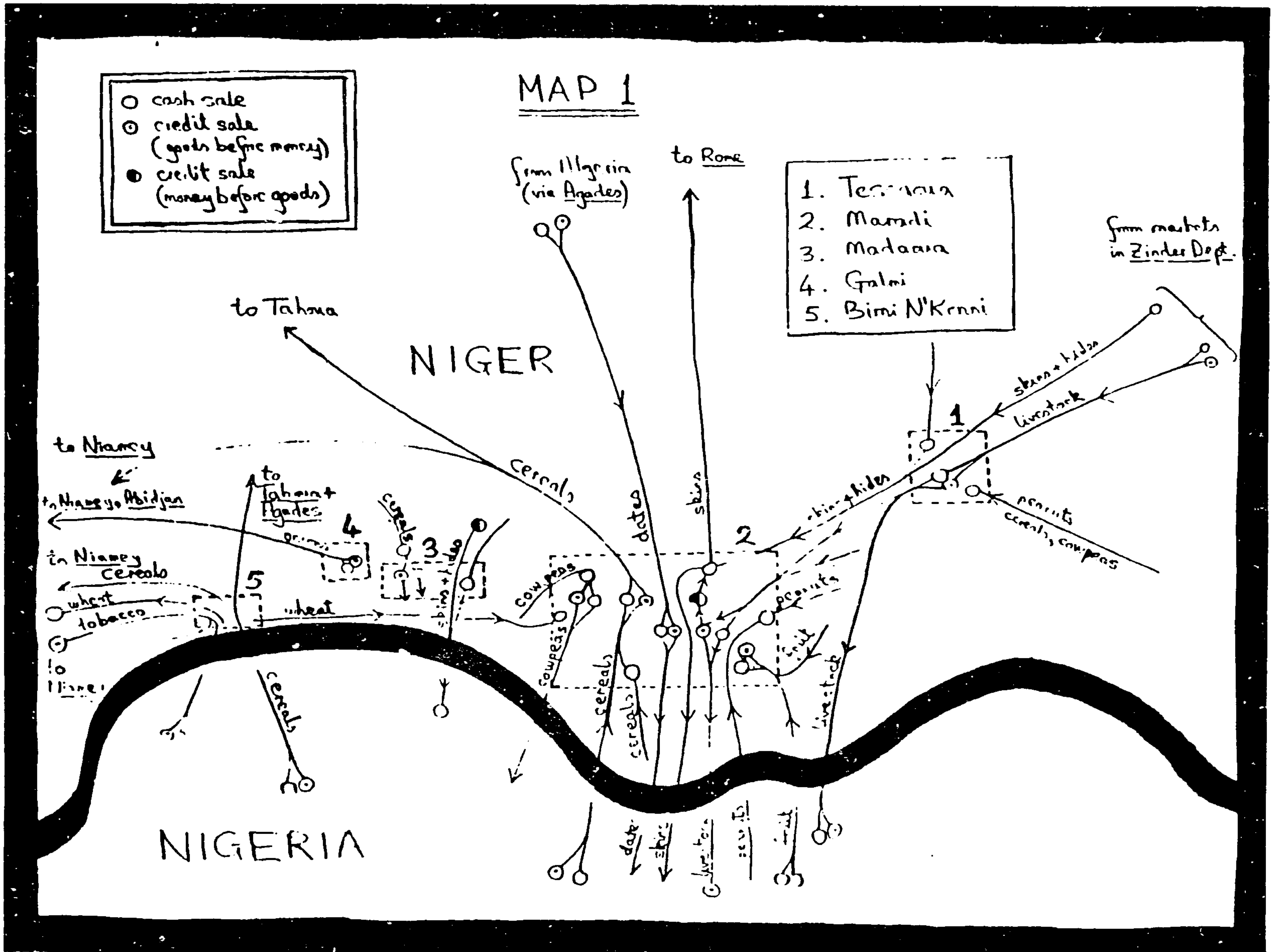
Another trader supplying vegetables to the N'Djamena market claimed to use credit for the production of the vegetables but not for their marketing. All other Chadiens and all Nigeriens interviewed use or grant some credit as part of their business.

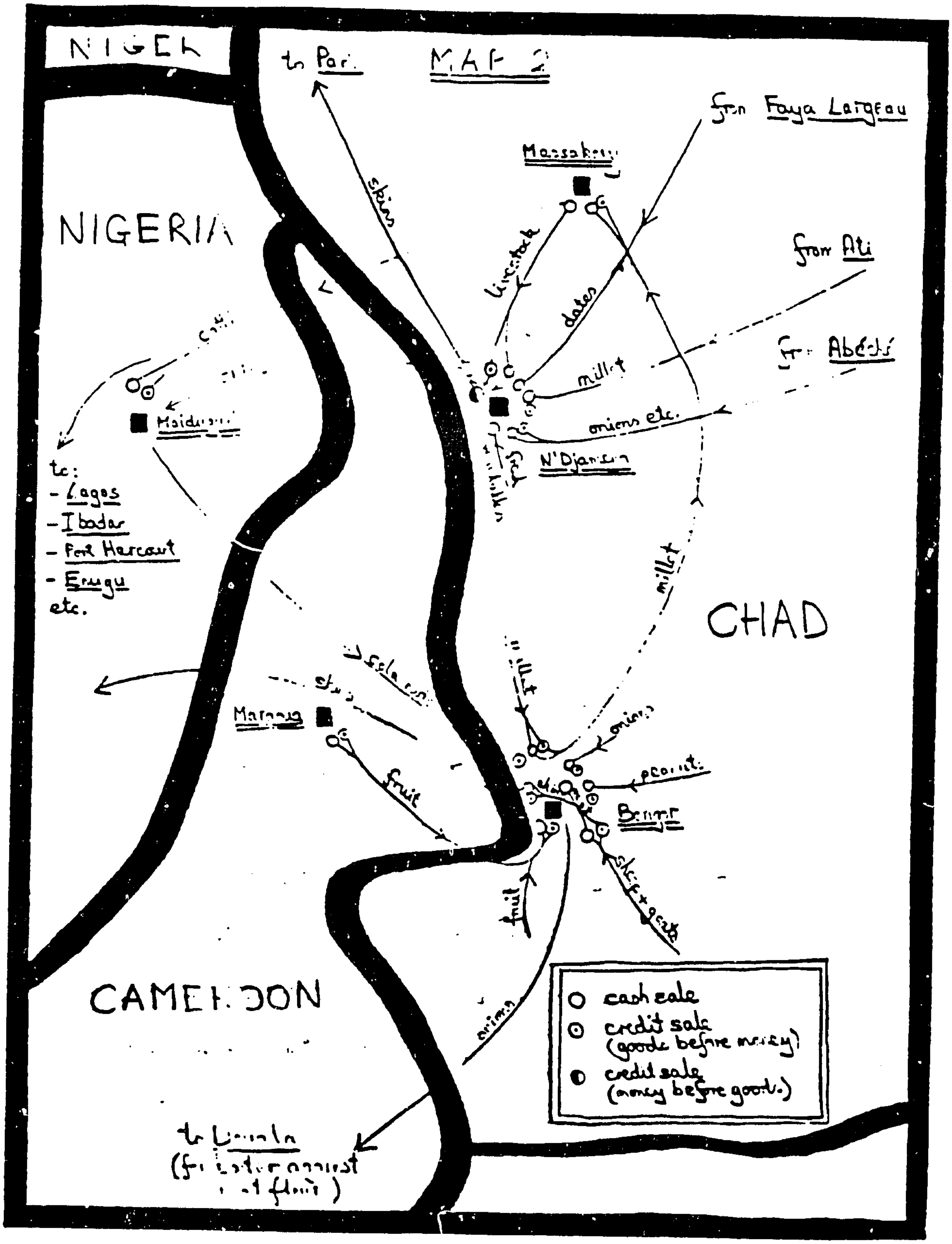
A. Flows of Credit along Market Chains

Maps 1 and 2 show the geography of wholesale goods and credit flows of the traders interviewed. It portrays a rough representative profile of the trade flows in Chad, Niger and Nigeria documented in the survey.[4] Three different types of market sale of goods are distinguished: (1) cash sales: (2) commodity credit from buyer to seller (where cash precedes goods); and (3) commodity credit from seller to buyer (where goods precede cash). No attempt is made to distinguish between cash sales financed by a third party and cash sales for which the buyer pays from his own funds. A circle at the end of a route and not in a town in which the interviews took place represents a purchase or sale made by a trader travelling to buy or sell. A route with no circle at its end indicates: local production, shipment by traders based in the source or destination market, or no information.

Credit is spread fairly evenly across both maps. Only trade in wheat (Birni N'Konni) and in fresh vegetables and dates (N'Djamena) do not involve at least some credit activity. The routes from Maradi across the Niger-Nigerian border are striking but consistent with the town's reputation for exactly this sort of trade. Chad, with a greater range of

[4] Section II.A.1 lists the major international trade flows between Nigeria and the two countries under study. The only trade flow between Chad and Niger documented in the interviews was livestock in transit from Chad to Nigeria which passes through the dried-up bed of Lake Chad.


MAP 1
cash sale
credit sale
(goods before money)
credit sale
(money before goods)
1.
2. Maradi
3. Madaoua
4. Galmi
5. Birni N'Konni
from Algeria
(via Agades)
from markets
in Zinder Dept.
to Tahoua
NIGER
NIGERIA
to Niamey
to Niamey, Abidjan
to Tahoua + Agades
cereals
skins + hides
livestock
peanuts
cereals, cowpeas
cowpeas
dates
skins
wheat
tobacco
fruit



MAP 2
NIGERIA
CHAD
Massakory
from Faya Largeau
from Ati
skins
livestock
dates
millet
onions etc.
N'Djamena
fresh milk
to:
- Lagos
- Ibadan
- Port Harcourt
- Enugu
etc.
millet
onions
peanut
Bongor
fruit
skins + goats
cash sale
credit sale
(goods before money)
credit sale
(money before goods)

ecosystems, appears to meet more of its needs in its trade in agricultural and livestock goods internally. Credit flows in a market network are emphasised in the example of livestock and meat marketing given in section III.C.

B. Terms and Conditions of Loans

1. Amounts Lent and Borrowed

Cash advances are available on many scales. Individual cash loans discussed in the text varied from 50,000 CFA (about $200) to 8 million CFA ($30,000) in Niger and from 10,000 CFA ($40) to 12.4 million CFA ($45,000) in Chad. The range covers three orders of magnitude. The bottom end corresponds to the petty needs of a small retailer, while the top end represents the cost of a small lorry for a wholesaler who has diversified into transport. Along the spectrum between these extremes lie the sums needed to: buy a sack of dates (20,000 CFA), fill a small storage shed with cereals (300,000 CFA), and assemble an export herd of 50 head of cattle (four million CFA). The median of fifteen Nigerien cash loans discussed earlier was 900,000 CFA, and of thirteen Chadien cash loans was 500,000 CFA. The interquartile ranges were 150,000 to 1.25 million CFA and 100,000 to 2 million CFA respectively.[5] With such small, non-randomly selected samples, no generalisations can be made for averages of all traders from these countries. Note also that the above statistics are based on all data collected on cash loans -- with and without interest.

[5] Medians and interquartile ranges are given rather than means and standard deviations because the distributions are very skewed, each containing one very large member.

The more limited data for individual commodity credits do not allow conclusions to be drawn about whether they tend to be larger or smaller than cash credits.

Most creditors are owed money by several debtors. In Bongor, commerce is dominated by a single large trader whose diversified trade includes several agricultural products. During the civil war he granted substantial amounts of credit, to the extent that he is owed a total of 27 million CFA by Bongor traders. He claims to be confident that a large part of this will be paid back as the economy picks up. It is possible that several traders interviewed in other markets also have cumulative credit on this scale, but none divulged it.

Credit limits for non-family members are built up slowly over time, on the basis not only of individual credit histories but also on the strength of interventions by "mentors" who may offer to guarantee loans. Older, richer members of the extended family often play this role.

2. Interest Rates

Many loans are made without interest, explicit or implicit. A trader-borrower will generally favour these loans, despite the social debt he may build up. When the trader does not have access to interest-free loans, because his patron does not have the liquidity or because he is the patron of his social circle, he may borrow with interest. What follows is a discussion of loans with non-zero interest rates.

Cash Loans

Credit with explicit interest is difficult to document. Second-hand estimates from both countries suggest an interest rate of between 5 to 12 percent per month. An estimate by a Maradi expatriate of 50 percent per month must be counted as a third-hand source. Some Nigerien traders discussed borrowing money which they paid back with a "gift", which they distinguished from interest. We should not, therefore, compare these directly with moneylending loans. Interviewees often gave examples with fuzzy terms, resulting in a range of interest rates. The resulting maxima and minima were converted into average monthly rates. There is a wide range: from 3 to 82 percent, with a median of 10 percent and a mean of 13 percent. The interquartile range is from 7 to 32 percent. In stark contrast, Nigerien banks charge 10 percent per annum and the annual legal maximum is 14 percent.

There is one detailed example which allows a direct comparison between a more formal, moneylender loan and a less formal loan between those with close social ties. A Maradi livestock trader said that if he borrowed money for a week to buy a bull (about 80,000 CFA) he would have to pay interest of between 2,000 and 5,000 CFA (10 - 27 percent per month) if he borrowed from a friend or family member or between 5,000 and 7,000 CFA (27 - 40 percent per month) if he borrowed more formally.

A single Chadien example is available for comparison. According to a Massakory cereals trader, the "gift" he gives as a borrower to a lender could be "up to 100,000 CFA" on a one-month million CFA cash loan to finance cereal purchases elsewhere in Chad. This translates into a maximum monthly interest rate of 10 percent on a loan which, according to the trader, was approximately one third of the profit of the business venture it financed.

In other words, the loan is between friends and yet the lender would accept up to one third of the profit. This loan lies somewhere between the pure business and the pure assistance (i.e. interest-free loan). Thus the 10 percent should not be outside the normal range of interest rates. This is not inconsistent with the Nigerien results above.

Interest charged by moneylenders need not be compounded indefinitely. One Chadien said the Bongor moneylender charged 10 percent interest for any length of time. A Nigerien said the moneylender he knew did not grant credit for any more than a month at a time.

In conclusion, it seems that money can be borrowed at a wide range of interest rates. Most cash loans for which some interest is explicitly or implicitly paid seem to have monthly rates in the 7 to 32 percent range. The range of "gifts" given as gestures to creditors appears to encompass the range of interest rates quoted for moneylenders, although these are not well known. In this light, moneylending cannot be seen as exploitative in the Western sense, merely contrary to Islamic norms.

Another issue merits comment here. The rapid turnover in trader activity creates a very short term loan demand that formal institutions in Africa are ill-prepared to service. On the other hand, six month to one year loans more common for formal institutions are not well suited to high turnover informal trading business. By the same token, high turnover of inventory can generate rates of return to pay 10 to 15 percent monthly interest charges that longer term gestation projects or agricultural activity would be unable to support. Hence what appears to be relatively high monthly interest charges in informal markets may not be high in relation to the successful consumation of the short-term activity in question.

In short, comparisons of relatively high monthly interest charges for informal credit to lower annual interest charges for formal credit can be misleading without taking into account the typical turnover of the activities in question (and their corresponding economic rates of return).

Commodity Loans

Data available for implicit interest rates on Nigerien commodity loans also have a wide range. For cattle the rates are from 13 to 36 percent per month with a median of 20 percent; for cereals they range from 3 to 52 percent also with a median of 20 percent. Data for sheep give much higher rates. For dates and onions rates are much lower, for no apparent reason. Very limited data for Chadien cereals indicate a median of 16 percent per month. These results suggest that there is little difference in interest paid between cash and commodity loans.[6]

3. Loan Terms

Term Structure

The data for Nigerien loans in both forms -- cash and commodity -- were combined to investigate the term structure of interest in its broadest sense. Average monthly percentage rates were calculated for each term for which interest rates were available.

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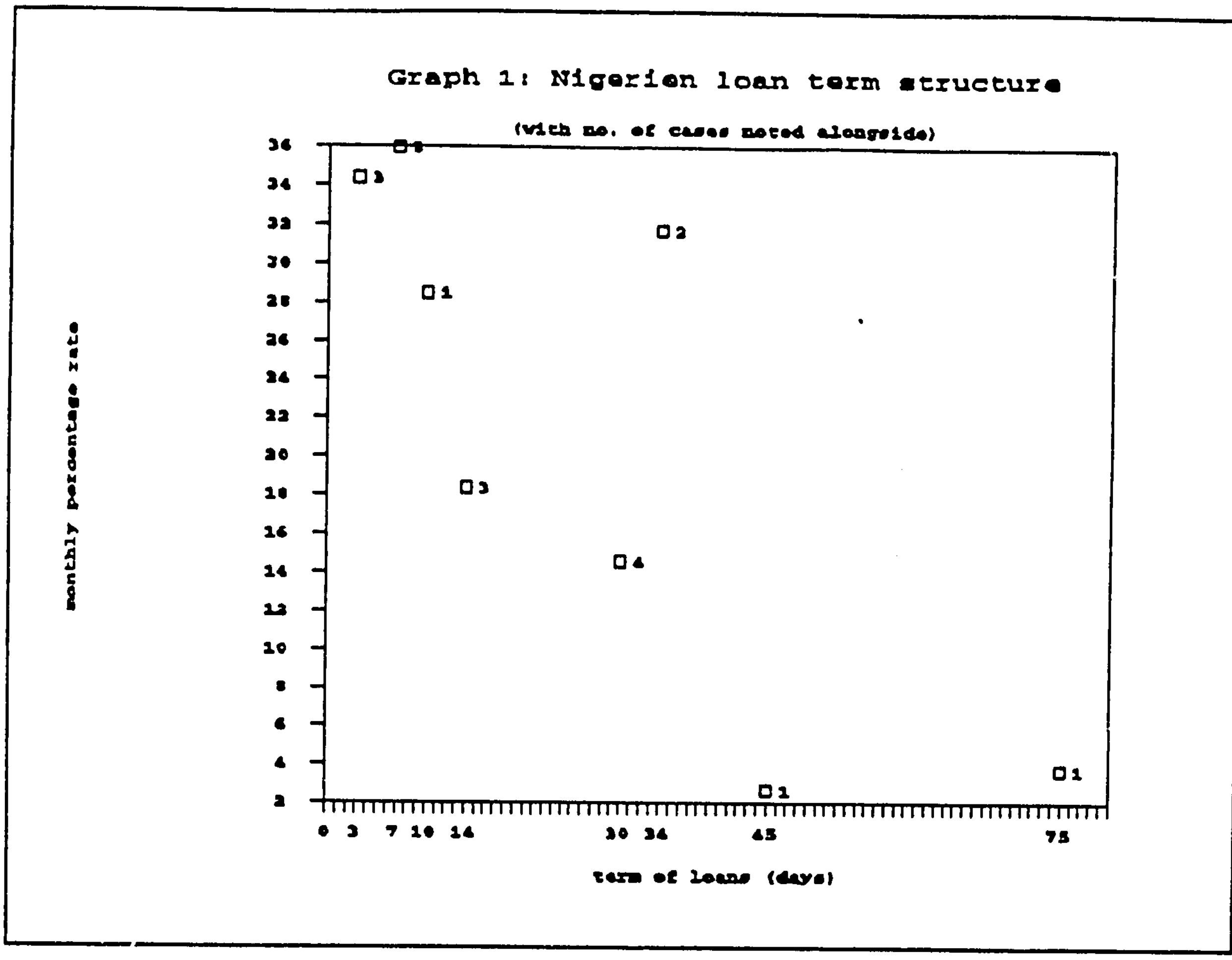
[6] Implicit interest rates for commodity loans may only be calculated when there is both a futures and a spot price for the good in question. If a good is only sold on credit, it becomes impossible to distinguish the interest income from other trading profit.



Graph 1 displays the results. There is no convincing trend. Regressing the interest rate on the term indicates a declining term structure, with the monthly rate declining by half a percent per month with each extra day, but this relation explains only 17 percent of their relative values (i.e. $R^2 = 0.17$). Data may have been wrongly noted or interpreted, but such a distribution may also represent reality, since they cover several commodities and various levels of formality and risk. Chadien data were insufficient to justify analysis, but also suggested no clear trend. There is a real need here for more research.

Variability

Terms for informal loans are variable. Loans are made more to accomplish specific transactions than for particular periods. Borrowers generally repay as soon as they have met the goal for which they obtained the credit. The range encountered was from one day to "years".

In-kind credit from wholesalers to retailers is the shortest term category, generally extending from a day to a fortnight, depending on the time needed for the retailer to sell the goods. The time needed depends on the perishability of the goods, the distance between the wholesaler extending the credit and the retailer receiving it, and the degree of transformation of the goods before their retail sale. For example, credit for a single day from a Bongor livestock trader to a local retail butcher seems reasonable, since meat must be sold within hours of slaughter. On the other hand, the Maradi wholesaler who sells fruit imported from Nigeria to retailers who come from all over the department gives a full week's credit to allow for travel time. At the other extreme, Maradi butchers sell hides to small-scale local tanners and cobblers with two-months credit to allow enough time for tanning and the manufacture of sandals and other leather goods that are eventually sold. Loans with the longest maturities fall into two categories: cash loans from one extended family member to another (in both countries), and Nigerien cash loans for trade with Nigeria.

Flexibility

Terms are also flexible. When interviewees talked of terms, they refer to averages from their experience, rather than of rigid limits. In negotiations prior to granting a credit, an approximate term may be mentioned, but even this level of specificity may be omitted, particularly between friends and family members. A Bongor butcher declared bluntly that there was no time limit to the credit he granted.

For those who do discuss the maturity when the loan is granted, the nature of the venture for which the loan has been granted may evolve. The perception of maturity from the perspective of the borrower and the lender will also change, so the term increases or decreases, mutatis mutandis. This is surely the underlying point of view of the female Maradi peanut trader who complained that as many as half her debtors do not pay "on time", yet who does not apparently stop granting them credit! Finally, some profit-sharing loans are effectively of indefinite duration. The lender and borrower meet from time to time, usually at least once a year. They settle accounts and, if both parties are satisfied, the lender immediately reloans the money to the borrower. (See section II.C.3.)

4. Collateral and Collateral Substitutes

As noted above, merchants lend mostly to people they know, to whom they lend without guarantees. However, some are also attracted to potentially profitable ventures with those whom they do not know well. Here they take steps to reduce their risk exposure. Several options are available. A lender may increase the proportion of his retained profit. This guards against dishonesty at the point of profit-sharing. However, it is doubtful that many traders would lend money if they felt that the borrower was capable of such deceit. Traders did not often mention this as a precautionary step.

The prospective lender may also research the reputation of the trader who is asking for credit. For instance, one N'Djamena grain merchant refuses credit to anyone whom he learns has an association with alcohol or prostitution. However, lenders seem to work with informal credit ratings of individuals which are readily available, rather than doing additional research.

Finally, for larger, more formal loans, the lender may require technical details of the venture and a degree of proof that it will succeed. For instance, a prospective borrower who presents a contract for supplying an international organisation or project with goods is in a very strong position to secure informal credit. If the trader is still in some doubt, he takes precautions to verify that the borrower is backed by enough collateral. In case of still greater doubt, he does not grant credit. Another option for those in doubt is to scale back the size of the loan, imposing credit limits per person (or per activity) to diversify the loan portfolio. This is presumably common practice, though it was not often mentioned in the interviews.

Many traders said that for a commercial loan they require collateral to the full value of the loan. A colleague of the N'Djamena grain merchant mentioned above requires full collateral for loans of more than 50,000 CFA. Collateral may take many forms: a stock of goods, houses, vehicles, a standing crop, or livestock. Most often the lender demands a guarantee in the form of title deed to the borrower's house, to be handed back when the loan is repaid. One trader claimed he does not demand the title deed, but goes with the prospective borrower to evaluate the house being offered as collateral and, if satisfied, informs the neighbours that he is accepting it as collateral for a loan.

Some other traders required a title deed as a possibility but, when pushed, admitted that they had, in fact, never asked for a deed when granting credit, because such actions risk distancing the trader from the trading community. In the ideal case the borrower who cannot repay willingly offers his title deed to the lender when this becomes evident. To ask for the title deed at the outset is to undermine the spirit of good faith. The traditional social code shames its strict adherents away from this element of self-protection.

5. Documentation

Credit between friends and family members is generally less documented than more formal credit. However, quite large sums can often be lent without documentation in more formal credit arrangements. The largest undocumented formal cash loan mentioned during the interviews was a three million CFA loan made by a N'Djamena grain merchant. Lack of documentation is not because the parties are illiterate -- there is always someone who can act as a scribe -- but due to a mixture of tradition and trust.

Those who do not do their business on paper run three risks. First, they must carry details of each transaction around in their heads and may make mistakes. No one cited this as a problem. Their minds are apparently accustomed to dealing with such complexity. Second, lenders who do this are at a disadvantage in disputes. Third, when lenders die their heirs may have difficulty recuperating outstanding loans.

Non-documented credit of any importance is usually witnessed and the borrower may be asked to swear on the Koran that he will repay it. Each of these precautions may be as good in its own way as a written agreement, the first as evidence in traditional enforcement procedures, the second in convincing the borrower to repay before any enforcement is necessary.

It is not clear which details are noted on the promissary notes for documented loans, beyond the two parties' names, their signatures, the amount borrowed and the date. In all likelihood, the term cannot be determined in advance; the form of repayment may not be specified; and there may be no explicit interest to be paid. It is likely that if the profit is to be shared the proportions due to each party are made explicit.

6. Repayment Conditions and Loss Provisions

Forms of Repayment

Loan repayment is usually in cash, whether the loan was made in cash or in kind. Some traders considered it unacceptable that a debtor repay them in anything but cash: repayment in kind is considered a nuisance. One N'Djamena grain trader understandably said that if a prospective borrower intended to reimburse in kind, he would expect to be informed at the outset, so that he could plan for it. Furthermore, it is preferable that reimbursement be made in one single payment, though this is clearly less important than the ultimate repayment of the loan. One trader said that a series of repayments was possible, but this would have to be negotiated at the outset. Repayment of interest-free loans in tranches appears to be more acceptable than for business loans.

The preferred currency of repayment is the currency in which the credit itself was denominated, usually the CFA franc. Some traders were able to obain naira-denominated commodity loans in Nigeria.[7] Indeed, in some border areas of Niger dominated by the Nigerian economy, loans are denominated in naira. In both cases, creditors prefer repayment in naira.[8] One Maradi grain merchant borrows in CFA francs from money changers to finance purchases of cereals in Nigeria. They give him the naira he needs to make his purchases in Nigeria. The exchange rate is taken into account in calculating their profit from the loan. In contrast to the usual norm of cash repayments, repayment of one type of cash loan is required to be in kind. Cash advances to butchers from traders of skins and hides are made in return for a flow of skins and hides.

Apportioning Losses

Both parties must agree what should happen should the loan go bad. There are several possibilities. Losses incurred in the course of business financed by a loan are generally reimbursable by the borrower if lender and borrower are of a roughly equal commercial status. A "mentor" who has recommended a trader for credit to a lender is likely to find himself under pressure to aid in its repayment, even if he did not offer to do this when he made the recommendation.

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[7] Naira-denominated commodity credit is sometimes available in Nigeria for Nigerien and Chadien traders, whereas there was no mention of cash loans being advanced to them there.

[8] The Nigerian naira is readily convertible into francs on a thriving black market which is quite open in Niger and Chad.

If, however, the lender-borrower relationship is asymmetrical, the lender may absorb the loss, reinforcing the assistance nature of loans from patron to client. This seems to have been what happened to the largest loan documented during the interviews. A N'Djamena grain merchant lent 12.4 million CFA to a family member to whom he had not before given credit. Over the course of five months his relative lost three million CFA. The grain merchant absorbed the loss. He has since lent to the same man several times, sometimes with gains, sometimes with further losses. Similarly, a Maradi date trader said that, as a lender, he would accept losses stemming from the borrower's business venture.

A third option is to share losses. For instance, a N'Djamena trader of skins and hides who carries on many business deals with other traders -- sometimes as a lender, sometimes as a borrower -- shares any losses equally with his partners. According to a Massakory cattle trader, the proportion a debtor should pay depends upon the ways the losses occur. If the loss was due to acts of god (e.g. a lorry crash or a fire) he would ask for half the loss to be reimbursed. He asks the borrower to pay one third of the loss due to poor commercial judgement. A loss due to irresponsible or wanton behaviour must be completely repaid. Note that in profit-sharing arrangements the rules for sharing profits may be quite different from those governing losses.

7. Bad Debts

N'Djamena butchers, well versed in credit, captured the essence of what to do if a loan is performing poorly: give more time to repay the debt; give more money to save the investment; take the debtor before the local administrative body to enforce payment.

Initial Steps

Even with a flexible timetable for repayment of a loan, there may come a time when a creditor loses patience with his debtor. The debtor may be unable to repay his debts, may be unwilling, or may merely be showing signs of poor management. Creditors react in different ways depending on their evaluation of the borrower's character and the nature of the venture in which the money has been invested.

For some, the first step is to cut off further credit. Conversely, others grant more credit in the hope that the debtor's future trade will be successful, enabling him to repay the debt. Wholesalers facing persistent retail debt generally adopt the former strategy. For instance, the N'Djamena onion wholesaler who sells onions on credit to retailers reacts to delinquent repayment by stopping credit sales to the defaulter, but does not try to make the defaulter repay the outstanding sum. It's not clear whether he broadcasts this to others, i.e. blacklists them.

Many counsel patience, without granting more credit or demanding the repayment of outstanding loans. The borrower may eventually make good the deficit or members of his family may assume responsibility and find the means to reimburse the lender. A millet trader in Massakory suggested going easy on debtors. In his experience repayment may take years.

Some credit is never repaid. Loans to family and friends may be transformed into gifts. Though there is a high tolerance for unpaid debts of this type in both Niger and Chad, each trader had his own criteria for cutting off further credit and pursuing debtors. A Maradi date trader said that he would not expect repayment of loans of up to 100,000 to friends, and that he regarded them as potential gifts. He distinguished such "loans" from the loans of 500,000 CFA which he would make on a more formal basis to non-friends. A Maradi livestock trader makes loans to friends which they tend to treat as gifts. If, after two or three times, a friend continues not to repay the loans, he stops lending them money, but does not impose any other sanctions.

Eventually, a creditor who has taken the title deed to a house or other collateral may take it, and inform the authorities of this. Where no such collateral exists, or the validity of the loan is contested, the case may go to adjudication. During informal wrangling and discussion to resolve the bad debt, the debtor has not necessarily foregone the possibility of future credit if the discussions have been without rancour. If the issue is taken to adjudication the chance of future credit from the creditor may be much reduced. Credit from others may also be jeopardised since adjudication draws attention to the case.

Formally-Contested Debts

Although the informal credit market is unregulated in both countries, common law governs contracts. Therefore, credit disputes may end up before some recognised authority. However, Niger's traditional enforcement mechanism is not very effective when put to the test in certain settings. CARE International guarantees loans made in the Maradi Department by the BIAO commercial bank to a variety of small enterprises. It generally resorts to pressure from local traditional political authority to ensure repayments. This has been effective in villages and smaller towns. However, in Maradi and Tessaoua, the two largest towns in the Department, the traditional structure has been unable to compel debtors to reimburse. The canton-level chiefs no longer have enough leverage in these larger, less traditional centres. In these cases, the province-level chief, at the highest level of the traditional structure, has had to intervene to ensure repayments. One should not necessarily deduce from this that the social structure which underpins the trading community is breaking down. It may still work well when both sides of a loan dispute are traditional actors.

One creditor chronicled her disillusionment with the Maradi adjudication process. She is a businesswoman who does not document her loans. She took another woman to the traditional authorities to try to secure loan recovery. She lost, though she claims that the lack of documentation was not the deciding factor. She asserted that the authorities were biased against her and in favour of her debtor.

In Chad, traditional authorities do not handle credit disputes. Instead, the creditor who cannot obtain satisfaction takes the matter to the police who arbitrate in the presence of both parties. A fruit trader in Bongor who documents his credit had successfully taken a woman who owed him 70,000 CFA to the police. She was required to repay in tranches and had repaid almost 60,000 CFA at the time of the interview.

C. A Detailed Example: Credit Flows in the Livestock and Meat Market Chain

Livestock and meat marketing is in many ways the most complex of the marketing chains due to the heterogeneity of the product, its long-distance (at times international) nature, and the transformation of the animals into meat, skins, and hides. Information derived from interviews with cattle and small ruminant traders, butchers, and skins and hides traders in both countries allow us to piece together a tentative picture of the various links from Sahelian livestock raising to meat consumption in littoral Nigeria.

The Sahelian Livestock Market

The traditional Sahelian herder sells livestock when he needs money to make purchases. He is unlikely to sell an animal on credit. The immediacy of his needs and the mobility of his lifestyle (determined by the availability of grazing for his herd) induce him to sell the animal, buy what he needs, and move on. Therefore a livestock trader must go to market with a full pocket. He takes his own retained earnings and perhaps borrows from friends in the town in which he is based.[9] He may be able to borrow more at the market if he feels he can profit from extra purchases. For example, a small ruminant trader based in Maradi goes to weekly rural markets in the department with 150,000 CFA, enough to buy about ten sheep. He has a good reputation and can usually borrow between 50,000 and 80,000 CFA more from large traders in the marketplace, to be repaid at the next market.

The trader's small herd of, say, twenty sheep and goats is trekked to Maradi by a hired shepherd with those of other small ruminant traders. It does not make sense to try to export only twenty animals: the fixed costs are too high. The only exception to this is just before the Eid-el-Kebir Muslim feast when ram prices rise substantially. In the Maradi market the animals are resold. The heaviest animals may be bought by exporters as part

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[9] Massakory small ruminant traders claim to be no more likely to be able to obtain credit from Massakory's richer large ruminant traders than from traders in other commodities in the market. The two trades, very similar on the surface, are not closely linked in credit terms.

of an export herd of, say, 200 head of small ruminants or 50 cattle. Some animals with fattening potential may be bought by fatteners. Exporters and fatteners pay cash. Butchers buy most of the rest for immediate slaughter.

The trader himself will buy, as well as sell, on the daily Maradi market, because herders also present animals for sale there. As in the rural market they need cash. The trader waits until the tail end of the market and buys cheaply animals which the herder feels he must sell immediately. On any given day, the trader will have at least a few animals on sale at the Maradi market. Herders only come to market on the two major market days: Monday and Friday. However, urban demand for meat is not restricted to these days. Butchers must buy animals daily.

The Butcher

Butchers may be the most intensive users of credit in the Sahel (as a proportion of their turnover). From the smallest to the largest, they all buy some, if not all, their animals on credit from livestock traders. Many animals not bought on credit are bought with borrowed money or with cash advances from traders of skins and hides. They rarely use their own money to buy animals for slaughter. It is not clear how this credit culture has evolved among both Nigerien and Chadien butchers. However, it is clear today that the butcher enjoys a privileged bargaining position as a key processor of meats, skins and hides in the marketing chain. This position guarantees him access to credit.

The trader generally offers the butcher credit for up to 10 days. A trader in a large market in the Maradi Department estimated a 2 - 3 percent price differential between cash and credit sales for a 2 - 3 day period. Sixty-five percent of his sales to butchers were on credit. A N'Djamena butcher normally receives credit for one day, during which he slaughters animals, sells the meat, and reimburses the livestock trader. The price quoted for a one-day credit is the same as the cash price.

Another N'Djamena butcher, who sells to a supermarket which only pays him every 15 days, pays credit charges of about 8 percent for cattle and 10 percent for sheep and goats to the livestock trader who finances the sales. He has built up a close working relationship with a single livestock trader from whom he obtains credit for all his cattle: 20 head in a 15-day cycle, worth about 1.5 million CFA. The credit is guaranteed by a livestock sales intermediary.

Each trader gives the animals he wants to sell to such a man. The intermediary tethers together the animals from all sellers in his part of the marketplace and represents the sellers when prospective buyers come to appraise the animals. Price determination is by haggling. The buyer pays the intermediary a fee to cover his services which include not only bringing buyer and seller together, but also guaranteeing any credit. Almost all meat sold at the retail level is sold for cash. Credit sales happen occasionally. For instance, a butcher may sell meat on credit to a civil servant until the end of the month when he receives his salary.

Livestock Exports

Cattle dominate livestock exports to Nigeria from both countries. Sheep and goats play a minor role in Nigerien exports and a very minor role from Chad, except before Eid-el-Kebir. The cattle exporters interviewed in Niger and Chad pay cash for their animals but sell them in Nigeria on credit. In Nigeria, cattle are mostly sold to butchers through sales intermediaries, as in the Sahel.

However, exporters make a distinction between northern and southern Nigeria. There is a significantly greater chance of default on credit by butchers in southern markets, such as Lagos or Ibadan, than in northern markets, such as Kano or Maiduguri. In the north, sales intermediaries and butchers are usually of common ethnicity and religion. There is thus a social solidarity which reinforces debt repayment. In the south, this is not so. Cohen (1965) describes the social organisation of credit in the Ibadan cattle market in the early 1960s. There was a sophisticated traditional information system which made sure that the Hausa intermediaries co-operated daily to update credit information on the Yoruba butchers, while competing in the marketplace to sell to these butchers. The intermediaries competed within a framework that ensured they were not collectively allocating credit to any butcher beyond his preceived repayment ability.

The Ibadan livestock market has changed greatly since then and this system no longer works in the same way.[10] We may speculate that less information on the butchers' credit exposure leads to more defaults by butchers, that intermediaries are less willing to guarantee credit, and ~~that~~ this may be generalised to most cattle markets in southern Nigeria.

In contrast, intermediaries in the north can more easily enforce loan recovery because they and the butchers are part of a more cohesive social system from which butchers do not want to be ostracised. Sahelian cattle exporters who operate on a large scale have all done

[10] Interview with Alhaji Ahmed Dina, Chairman of the Cattle Market, Ibadan, May 1988

an "apprenticeship". They have spent time travelling with their herds in trucks to their Nigerian destination and have waited there for weeks, first for their animals to be sold on credit and then for that credit to be repaid. In this way they have built up their reputations in a foreign land. Once they become large operators, they send down representatives in their place, occasionally flying down to reinforce trade connections and keep their fingers on the pulse of business.

Confronted with the prospect of a wait of uncertain length in any Nigerian consumption market, the Sahelian trader or his representative has to decide how long to wait there. If he has enough working capital, enough confidence in his intermediary, and little else to do in Nigeria, he may return home immediately to begin building a new export herd. He collects payment for the previous herd when he delivers the next. Not all exporters are in the enviable position of being able to do this. Many wait in situ for at least a week until they receive all, or at least most, of their payment. Since a trader who has not received all his money must return to the same market, credit plays an important role in limiting the options for future destinations.

Interestingly, Massakory cattle exporters have little faith in credit operations in N'Djamena, so much so that they prefer to leave animals on credit to be sold in Maiduguri over the border in Nigeria than do so in their own capital. This erosion of confidence occurred during the civil war and it has not yet been reversed.

Skins and Hides[11]

Most credit in the skins and hides trade flows up the market chain, from buyer to seller. This is in contrast to other branches of the livestock marketing system where credit flows from seller to buyer. Skin and hide traders buy from rural collectors and from ordinary individuals, but their largest suppliers are butchers in the larger consumption centres. Traders grant these butchers advances to ensure a constant flow of skins and hides. A N'Djamena trader had given two million CFA in credit advances to local butchers. In 1989, a Maradi butcher received advances totalling several hundred thousand CFA from a local skin and hide trader. The trader himself explained that the advance was for up to one month during which time the loan was repaid in the form of skins and hides. Under this system a butcher repays his advances in the order in which he receives them.

Not all butchers sell their skins and hides in this way. In N'Djamena and Maradi, butchers claimed that they sold at least some for cash (though clearly they preferred the advances). And in Bongor, the southern Chadien provincial capital, butchers say they extend credit to the local skin traders. They are paid about a quarter of the agreed value of the skins and the remainder when the traders return from selling them in Nigeria, up to two months later. Moreover, even if a skin trader habitually gives cash advances, there is an expectation of reciprocity: if he needs credit, the butchers lend him money. In both Maradi and N'Djamena European buyers pay cash for the highest quality skins. They ship

[11] Skins are from small ruminants (sheep and goats); hides are from cattle. Goatskins are the most prized for tanning in Niger.

these to Italy and France, respectively. Backhaul airfreight rates from N'Djamena to Paris are relatively cheap.

The major event now reshaping the Maradi market for skins is the relaunching of SONITAN, Niger's only industrial tannery. In the past, a local skin trader claims that SONITAN has taken skins on credit some of which it has yet to repay. SONITAN's new management is now rebuilding its links to traditional sources of supply, but it is not clear what sort of credit arrangements it will favour.

Finally, local tanners and cobblers often buy hides and poor-quality skins from butchers. In Maradi, they are sold on credit of up to two-months which is approximately the period for tanning the leather, manufacturing local leather goods, and selling them.

IV. PECULIAR FEATURES OF INFORMAL FINANCE

A. Moneykeeping and Tontines

Moneykeeping

One source of funds which has not dried up with bank credit is the small saver, perhaps illiterate and uncomfortable with the formal banking structure. This saver has accumulated savings and does not wish to see them frittered away. Such a saver may entrust the savings to a large trader with a reputation for business savvy and honesty. This money may provide finance for trade. Most traders in both countries who discussed this practice were moneykeepers. Those who were not tended to be trading on a very large or a very small scale.

Some moneykeepers maintain that they keep the money at home (regarded as safe in traditional society) and would not dare use the money in their care for anything as risky as trade. This is undoubtedly sometimes true. But others openly concede that they use this money in their trade, always emphasising that the depositors are sure of getting their money back. One moneykeeper explained that at the outset the depositor had three choices in what would happen to the money. It could go into a chest in the house, it could be deposited in the trader's (non-interest-earning) bank account, or it could be used for trade. In the first two cases, the principal would be returned intact. In the third, the depositor and the trader would split any resulting profit, but the depositor would still be guaranteed his principal. Another moneykeeper openly explained to his depositors that he would use the money to finance his trade, promised no part of his profit to the depositors, and required one month's notice of withdrawal.

For some traders the amounts seem petty, and each is the source of just another irksome transaction. The service they render represents a social obligation they could well do without. The timing of deposits and withdrawals does not necessarily co-incide with their financial needs. They decline to be moneykeepers. These are mostly the very large operators. It remains unclear what volume of savings is deposited with moneykeepers and for how many of them the trading benefits outweigh the management costs.

Tontines

A tontine is a savings society to which each member periodically makes an equal contribution. The total sum collected is given in rotation to one of the members. The social obligations of membership impose discipline on the members to save regularly, rather than consume. Within the members' households this discipline may be lacking. The rotational sequence (determined by lottery or some other scheme) guarantees that every member collects a relatively large sum once during the lifecycle of the tontine which he or she can use for any chosen purpose.

Members physically meet (perhaps weekly or monthly), in which case a president organises the gathering, collects the contributions and hands the total over to the beneficiary chosen through the rank order scheme of payout, after having taken a small percentage for him or herself. Another, more flexible variant has the president sending someone to collect the money from the members and then deliver the payout to the recipient. The president again takes a small percentage for his trouble.

Interviews confirmed that tontines are typically associated with women, small traders and civil servants. Large and medium-sized traders generally did not participate. However, most smaller traders and all the women traders did participate, and commonly used the periodic payout to bolster their working capital. Most tontines were not organised around members who traded together, but among friends or folk from the same neighbourhood.

As a financial instrument, the tontine's primary function is to discipline members to engage in forced savings and then redistribute the availability of finance through time. This in itself might make a contribution to finance in allowing traders to benefit from economies of scale in purchases, thus increasing profits and future retained earnings. However, through the discipline they impose, tontines probably also allow more finance to be marshalled for business, diverting money from consumption to investment, though this is not proven. In so far as these two hypotheses are true, tontines are net sources of finance for trading activities.

B. Islam and Interest

Several traders talked openly about the apparent contradiction between Islam and interest. At heart the interviewees were traders and not theologians. A few suggested that they would refuse a loan with interest from a bank, should that become a possibility in the future. However, the discussion often turned to what was an acceptable rate of interest for the loan, leaving behind the original question. On the issue of interest paid by a bank on a time deposit, there was less opposition.[12] One trader likened taking interest from a time deposit at a bank to taking a "gift" from someone reimbursing an informal loan. This is quite acceptable. In both cases, the lender did not ask for the extra sum. It was given to him: a present from God.

There was often also an asymmetry to their view of informal moneylending at interest. They felt it was excusable to borrow from a moneylender but much less so to do the lending itself. However, asked if the moneylenders were still considered Muslims despite their sins, they answered that they were.[13] When the discussion was taken one stage further, to a comparison of the moneylender and the bank, the bank was generally

[12] There appear to be no savings accounts at banks in either country. There are checking accounts, which pay no interest and charge for services rendered, and time deposits which pay interest. Time deposits were chosen for the example discussed because they paid interest, even though they were somewhat removed from their daily experience.

[13] All moneylenders discussed were Muslim, even in the Chadien towns of N'Djamena and Bongor where about half of the population is Christian or animist.

perceived as the lesser of the two necessary trading evils. Their image of banks seemed to benefit from the banks' upfront attitude to interest, and from their having been introduced recently from outside. The moneylender, in contrast, had grown from their midst and was steeped in prohibition, secrecy and shame.

C. Credit to Women

Women in both countries are independent economic actors and, if able to issue or contract debt, do so on an equal basis with men. A husband need not take responsibility for his wife's debts, though he may be shamed into reimbursing them if she runs into difficulty. Some husbands give their wives credit for business. Traders were asked if they lent as easily to men as to women. Nigerien traders were fairly evenly divided on the subject, while four times as many Chadiens said they would not discriminate as those who said they would give men easier access to credit. Men who give credit to business-women prefer to deal with older women. A young unmarried woman is not regarded as financially responsible. The possible innuendo of adultery in relations with young married women is enough to dissuade most men from granting them credit, except through their husbands.

D. Livestock as a Bank Account

In both countries, traders with and without bank accounts talked of selling off animals at certain key times of the year to finance their trade. Livestock has become an important form of savings. It has not always played this role for traders. Until this century, it was the preserve of traditional herding ethnicities. However, with few alternative liquid stores of value, along with a reduced threat of disease due to improved veterinary medicine, and the demise of the banking structure, it is seen more and more as either an investment or savings by non-herding peoples. Animal numbers have therefore risen, not only because there is an increased demand for meat but also because of the demand for a store of value. Unfortunately, the range on which these animals graze has not risen to the same degree. Increased pressure on the range has resulted in overgrazing in certain zones. This highlights the perhaps unexpected link in Sahelian countries between the deterioration of formal banking services, on the one hand, and environmental degredation on the other hand.

E. Seasonality

Sahelian seasonality is pronounced. It results in post harvest sales booms of crops from producers to traders and rainy season slumps in animals for sale on the livestock market. The first increases a trader's need for finance; the second reduces it. Chad's seasonality is more pronounced because it lacks a good road system. This leads to the need to finance the buildup of stocks, particularly of cereals, to ride out anticipated rainy season months during which a market may be cut off. Additionally, those traders who have fields experience a seasonal peak demand for finance to pay farm workers during the rains (for rain-fed agriculture) or the dry season (for horticulture). The direct effects of seasonality on credit needs in the grain and livestock markets are described below, along with the indirect effect of seasonality on credit to retailers.

We can imagine two ideal types of grain merchants. Small operators buy and sell year round. They have a high throughput-to-stock ratio. Their financing needs do not vary much from season to season. In contrast, large operators buy up millet and sorghum after the harvest when prices are lowest and hold their stocks until prices have risen significantly, i.e. for at least six months. Most grain merchants fall between these two extremes. The degree to which they approximate one or the other determines the seasonality of their demand for finance.

A large part of the demand for credit of big grain traders who have a marked seasonality in their financial inflows and outflows may be absorbed by their other investments. To finance a lorryload of millet at harvest-time the merchant can sell 20 head of cattle. Assuming that some big operators have more than a thousand head of cattle, they have the means of stocking at least 750 tonnes of millet just by liquidating their livestock. And they may similarly draw down other stocks to invest in cheap cereals. However, they will not take such a strategy to extremes. It would lead to the higher risks of an unbalanced portfolio and to high transaction costs. There inevitably remains a demand for outside finance for cereal purchases. This demand is shared between the banks (when they grant credit) and large traders who do not themselves trade in cereals.

Massakory cattle traders stop trading during the rainy season.[14] Usually they export cattle to Nigeria and immediately repatriate the proceeds to finance another export herd. Just before the rains, they invest this money in Nigerian manufactured goods, return home, and don't begin cattle trading again until the end of the rainy season. They buy young

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[14] This is a partly a response to the need to manage the cultivation of their fields during the growing season, and partly because travel is so difficult during the rainy season. However, most importantly, at this time the traditional herder moves north, away from Massakory. Those who are left have fewer needs because milk production is higher. The result is fewer animals for sale in the market and less incentive to trade.

animals in June and invest in their agriculture throughout the growing season which spans the rains. In September, they restart their commerce with the proceeds of the sale of the Nigerian manufactured goods, and in November and December increase it further to meet the Nigerian Christmas demand with the sale of some of the animals they have raised. The market's small ruminant traders increase their rainy-season volume to fill the gap in the supply of livestock in southern markets. The small ruminant trader interviewed in Massakory as part of this study takes out a loan of up to a million CFA to finance increased sheep and goat trade during the period of the hiatus in the cattle trade.

Finally, as market prices rise seasonally, wholesalers may cut off credit to retailers. They need to conserve their working capital to pay for increasingly expensive shipments. For instance, in N'Djamena, the onion trader interviewed ceases offering his retailers credit for several months before the onion harvest when they become scarce.

V. CONCLUSIONS

Informal credit is alive and well in Chad and Niger. Unregulated by the governments of these countries, the informal system works efficiently within the bounds of the current market structure, transport costs and available market information. Compared to formal banks, the informal system quickly and flexibly allocates financial resources to profitable opportunities with low transaction costs. It is a social as well as an economic system, with traditional community customs playing a large part in the organisation of business. The system invests in its own reproduction, financing mosques and social events which reinforce traditional norms. These norms of honesty and trust allow its success without regulation.

Virtually all traders were extending commodity credit, receiving it, or both. Almost as many claimed to be participating in assistance or reciprocal loans. The apparent slightly lower proportion involved in the latter of these loan types was probably due to two factors. First, in the interviews, some assistance loans may not have been used for trade in agricultural and livestock products, and thus ignored. Second, for larger traders assistance loans may not have been mentioned because of their relative lack of importance in their trade, compared to other means of finance.

Profit-sharing loans were mentioned by slightly less than half the traders. Hints of participation in interest-beating loans accounted for less than ten percent, though this figure is the most likely to be biased downwards. These are the categories of trade credit which banks are most likely to offer.

In all loan categories, Nigerien traders were more likely than their Chadien counterparts to be involved in credit transactions. The differences were marginal for assistance/reciprocal loans and for commodity loans. However, Nigerien traders mentioned profit-sharing credit and hinted at interest-bearing loans about twice as often as Chadiens. It should be remembered that the samples were small, and that the Chadien traders were probably operating on a smaller scale than the Nigerien traders. (See section II.A.2.) The differences in scale of operation may explain a large part of the differences in use of different types of credit.

The opportunity cost of capital is high, as reflected in the explicit and implicit rates of interest encountered, probably averaging between 10 and 20 percent per month. A high average return to capital gives traders incentives to turn over their working capital quickly and to pick trading ventures carefully. The variation of the interest rate around this tentative average also seems to be high. As interest rates are not quoted in percentage terms, it is difficult for traders to compare these rates between regions and across trading activities and seasons. However, this lack of information does not limit their choice and thus distort informal capital markets. An ability to compare interest rates would not substantially widen their credit source options since credit is allocated principally through established social networks.

The efficiency of the informal sectors in both countries leads one to ask what need its traders have to evolve towards more modern business methods and, in particular, formal finance. Cheap credit was the answer which many traders gave to this question. Interest rates of around ten percent per annum are attractively low compared to rates in the informal market. The Islamic prohibition of interest is not a constraint to linkages between the informal sector and the modern banking system. Not surprisingly, some traders added that bank loans seem all the more attractive if they don't have to be repaid, as has happened at times in the past. However, for both governments the motivation to integrate the informal and formal sectors is designed to create the ability to monitor and control their national economies rather than promote the virtues of financial intermediation per-se.

However it should be remembered that in the informal sector loans are given for high-turnover, high-risk, high-return activities. The loans are generally repaid, indicating that the interest rates are appropriate. In contrast, banks are giving year-long loans for low-risk, lower-return activities. These are two different types of finance: apples and oranges. Banks don't meet short-term needs; nor should they unless they are going to radically change their way of doing business. Within the trading sector (as represented by trade in agricultural and livestock products), most finance is short-term and the monthly interest charges are reasonable in light of the successful consumation of the activity being financed.

If formal banking is the only medium through which the formal and informal sectors meet, the beneficiaries will be the larger traders with collateral and political connections. They are also, on average, more able to meet the banks' book-keeping requirements. Smaller traders will also benefit but only indirectly, from trickle-down loans entirely within the existing informal system, presumably at higher interest rates than those ruling in formal markets. To provide more competition to informal financial markets, governments may want to set up a revolving fund to meet the needs of intermediate-level traders. This would be a conduit for introducing simple modern management techniques in these businesses. Implementation might be through schemes similar to those that CARE International and VITA/PEP are implementing in Maradi and N'Djamena, respectively, but which are oriented more towards small scale informal production.

Beyond basic banking, more creative financial instruments to co-opt the informal sector such as profit-sharing joint ventures between the formal and informal sectors seem unlikely to work. The lack of trust between the two sectors and the shortage of accounting skills in both would create difficulties in calculating profits, if the banks were to insist that the venture follow official rules. Until governments show good faith by shedding most of the complex and expensive regulations which currently govern trade and credit in these countries, it is difficult to imagine that most traders would want to participate. Those who would choose to participate would be tempted to falsify their accounting to provide a lower accounting profit to be shared, as a quid pro quo for the regulatory cost they incur.

Before anything else, any new or restructured formal financial institution must be soundly managed. Given the recent experience of formal banking in Chad and Niger, building the reputation of a bank as a reliable establishment is more important to these countries than the specific services it offers. Elimination of unnecessary protocol is also important: relatively uneducated traders are easily intimidated by detailed paperwork.

Beyond steps to rebuild confidence in the formal banking sector, the conumdrum of the development of the financial sector may be partly sidestepped by other more straightforward initiatives to promote trading activities. Market information systems and, for Chad, improved roads stand out here. Market information systems permit traders to buy and sell efficiently to increase profit. News of price trends outside the market chain which the trader frequents or for commodities other than those which he normally trades may open up new avenues of opportunity. More efficient markets are a consequence of this. The trader may vary where and how much he buys and sells of different products to minimise gluts and spoilage and maximise profits. Better price information would therefore reduce the risk premium in the interest rates charged by the informal sector. It would also lead to higher prices for producers and, if there is no distribution monopoly, lower prices for consumers. Larger traders in both countries are already paying to to keep track of prices in distant markets by telephone, even across international boundaries. Free radio broadcasts of prices for a range of agriculatural and livestock products should be available to all traders.

Chad's poor road system adds an additional dimension to traders' seasonal portfolio adjustments, inducing traders to finance extra large stocks just before the onset of the rains. The rainy season monopolies which these traders enjoy when their markets are cut off may well yield them great profits, but they do not benefit producers and consumers at whose expense these profits are made. An all-weather road system for Chad, already under construction, would allow traders to reduce their rainy season stocks and divert their working capital to other uses. Chad as a whole would benefit.

On the basis of this discussion, the following recommendations are made:

1. Restructure and reform the formal banking system. Build institutions with reputations for honesty, stability, flexibility, and low transaction costs. These institutions could then be used more extensively by larger wholesaler traders who would then engage in more downstream lending activity through their informal networks.

2. Install a market information system broadcasting price information for agricultural and livestock products by national radio in local languages.

3. Provide all-weather roads between Chad's provincial capitals.

4. Train private sector management specialists and use them as extension agents to market the benefits of modern management tools to traders of agricultural and livestock products.

5. Undertake a more complete survey of the sources and uses of credit use in the trader community with a large randomly-selected sample that could yield

statistically valid results allowing a more accurate picture to be drawn of this large and least known component of commerce in Chad and Niger.

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