Trade and Traders. The Making of the Cattle Market in Benin
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Cattle markets and trade flows

This chapter presents an analysis of the cattle market in Benin along the lines of parameters identified in the conceptual framework. In accordance with the approach opted for in this study, the focus will specifically be on the structural level of trade. The parameters for investigating the functioning of the market are primarily drawn from the Structure and Performance components of the SCP methodology for the analysis of trade and markets. Therefore, the chapter will address variables such as supply, demand and prices (Sections 5.1 - 5.2), the structure and relative importance of trade flows (5.3), marketing costs as well as a general assessment of performance measures such as profitability and arbitrage (5.6). With respect to the trade flows, a distinction will be made between the local and regional levels of trade on the one hand (5.4), and the long-distance trade to coastal markets on the other (5.5). Parallel to the approach adopted in previous chapters, the issues concerned with at present will be dealt with from a historical perspective for which the actual functioning of the cattle market provides a starting point. A market survey carried at four cattle markets in northern Benin has provided the basic data set with which actual market functioning could be assessed. From here, the historical patterns were traced back on the basis of information obtained from interviews. Although scarce, those documents available on the cattle trade in Benin have been used to complement the picture. Finally, our results will be compared with findings from other studies on the cattle trade in West Africa.

5.1 Supply and demand at four markets in northern Benin

The market survey and in particular the transaction sample, which was introduced in Section 1.4, is central to our objective of analysing supply and demand at cattle markets in northern Benin. The present section sets out to answer some basic questions: who are the actors? what do they sell or buy and when? This provides a framework for a subsequent

1 The terms supply and demand are employed for practical purposes. 'Supply' refers to the number of animals presented at (one of) the four markets included in the survey. 'Demand' refers to the animals purchased at (one of) the four markets, and should therefore be considered as 'revealed demand'.

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analysis at the level of market segments. To start with, Table 5.1 presents a breakdown of the cattle supply on the four markets according to the type of actor.

### Table 5.1 Breakdown of supply according to actor and market, December 1995 - November 1996 (n=2250)

<table>
<thead>
<tr>
<th>Actor</th>
<th>Goumori (n=680)</th>
<th>Founougo (n=670)</th>
<th>Guéné (n=450)</th>
<th>Karimama (n=450)</th>
<th>all markets (n=2250)</th>
</tr>
</thead>
<tbody>
<tr>
<td>traders</td>
<td>7%</td>
<td>26%</td>
<td>3%</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>pastoralists</td>
<td>80%</td>
<td>53%</td>
<td>64%</td>
<td>70%</td>
<td>67%</td>
</tr>
<tr>
<td>farmers</td>
<td>13%</td>
<td>21%</td>
<td>33%</td>
<td>20%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Source: Own survey

As at almost all West African cattle markets situated in livestock production areas, most animals are supplied by Fulani pastoralists. The Fulani pastoralists in northern Benin are increasingly tending to bring their animals to the market now instead of inviting a cattle trader to their village. Today, 67 per cent of all the animals at the four cattle markets in the survey were provided by pastoralists. The survey results further show that the remaining 33 per cent of the market supply provided for by farmers (21 per cent) and traders (12 per cent). With regard to the latter, a noticeably high percentage (26 per cent) was enumerated in Founougo. This exceptional situation is due to context-specific circumstances related to the presence around Founougo of a group of specialised traders whose background will be dealt with in Section 8.2. In short, these traders specifically focus their activities on trade between cattle camps or transhumance sites and the Founougo market.

In line with our remarks on the increased market participation among farmers, the table reveals a supply share of 21 per cent on average. On the whole, 86 per cent of farmer supply consists of draught animals (mature bulls) which are released because the farmer wants to replace them. Thus, a substantial farmer supply would be expected at the Goumori and Founougo markets which are situated in a zone where the adoption rate for draught power is among the highest in Benin. However, the percentage of farmer supply is most important at the Guéné market. This seemingly paradoxical situation can be explained by the fact that the large Guéné market attracts farmers from all over the southern Borgou region. The Goumori and Founougo markets, on the contrary, draw predominantly from local sources of supply. Moreover, some of this region's cattle (mainly draught animals) are directly transported to Cotonou by collaborating farmers or by local cattle traders. Hence, these animals are not supplied to one of the local markets. The patterns of farmer supply are mirrored in Table 5.2 which presents the structure of supply according to the type of cattle, i.e. the 'what question'. The significance of farmer supply at the Guéné market is reflected in the disproportional number of bulls. At the same time, the table reveals an equally high percentage for the Karimama market which cannot be attributed to farmers alone (cf. Table 5.1). Instead, the high number of bulls in Karimama is due to the fact that this market draws significant numbers of cattle from its Niger hinterland (9 per cent of the total supply) of which more than 50 per cent are bulls, mainly supplied by traders. The practice of giving cattle supplementary feed in the 'pasture scarce season' is much more widespread in Niger than in Benin. Thus, between the months of February and May some domestically fed, high quality bulls are brought from the Niger
part of the border region (extending some 150 kilometres to the north) to Karimama where
they are very competitive given the poor condition of the majority of the other animals.

Table 5.2 Breakdown of supply according to type of cattle and market, December 1995 -
November 1996 (n=2250)

<table>
<thead>
<tr>
<th></th>
<th>Goumori (n=680)</th>
<th>Founougo (n=670)</th>
<th>Guéné (n=450)</th>
<th>Karimama (n=450)</th>
<th>all markets (n=2250)</th>
</tr>
</thead>
<tbody>
<tr>
<td>bulls</td>
<td>28%</td>
<td>25%</td>
<td>39%</td>
<td>38%</td>
<td>31%</td>
</tr>
<tr>
<td>bullocks</td>
<td>30%</td>
<td>32%</td>
<td>19%</td>
<td>15%</td>
<td>25%</td>
</tr>
<tr>
<td>cows</td>
<td>25%</td>
<td>25%</td>
<td>27%</td>
<td>34%</td>
<td>28%</td>
</tr>
<tr>
<td>heifers</td>
<td>17%</td>
<td>18%</td>
<td>15%</td>
<td>13%</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Own survey

When the four markets are considered together, it appears that, except for heifers, all other
types of cattle make up almost equal parts of the total supply. The relatively low percentage
for heifers is principally explained by the herd structure together with the pastoralists' preference not to sell them. In fact, the pastoralists' supply predominantly consisted of
bullocks and cows (67 per cent), the types of cattle they prefer to release. Bullocks in
particular constitute the main category of animals supplied to the Goumori and Founougo
markets. The lower shares of this type of cattle in Guéné and Karimama result from the
rather high number of bulls.

With regard to the 'when question', the number of cattle offered at a specific market can
fluctuate considerably not only between seasons but also from one week to the next.
Periodic rainfall, the celebration of a particular ceremony or the identification of disease
within a cattle herd pasturing in the area around the market will without exception provoke a reduction in the number of animals supplied. Moreover, the presence or absence
of transhumant cattle herds during specific periods has an impact on market supply as well.
However, contrary to the patterns observed at most Sahelian markets (cf. Zaal 1998; Holtzman & Kulibaba 1992), the overall impact of transhumance movements on market
supply in the study area is quite low. Although the simultaneous arrival or departure of
herds can occasionally cause a change in supply on a particular market day, the
transhumance movements in general do not radically change the number of animals present
in the areas around the markets. In northern Benin, most of the districts have incoming as
well as outgoing cattle herds during the transhumance season. Together with the fact that
distances covered have become shorter and many pastoralists remain within reach of their
usual markets, this reduces the impact on market supply. In contrast, markets further south
such as Tchaourou experience a substantial increase in supply since they are situated in
areas which receive large numbers of transhumant pastoralists from Niger and Nigeria.

The supply fluctuations for the surveyed markets are shown in Graphs 5.1-5.4. In
absolute numbers, average supply per market day is higher in Guéné and Karimama. This
can be attributed partly to the distinctive number of market days per month (cf. Section
1.4). Still, total supply over the survey year was higher in Guéné and Karimama. Together,
these markets received approximately 33,500 head of cattle against 21,000 in Goumori and

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2 Bullocks represent male animals in the age category of 1-3 years.
Founougo. It should be noted that these graphs are not adjusted for the what can be considerable 'carry over' from one market day to another. The differences in size are partly related to the area from which the respective markets attract cattle (cf. Map 5.1). Apart from this, the graphs reveal distinctions in seasonality patterns.

Graphs 5.1 - 5.4  Average supply of cattle per market day at four cattle markets, December 1995 - November 1996

Source: Own survey
Note: Standard Deviations are 42 (for Graph 5.1); 32 (Graph 5.2); 55 (Graph 5.3) and 75 (Graph 5.4).

Graphs 5.1 and 5.2 present the seasonality of supply for the Goumori and Founougo cattle markets. At these markets the seasonal fluctuations in supply reveal similar patterns. In fact, this pattern is closely related to the agricultural calendar which is characterised by a peak in labour requirement during the growing season. This means that supply is generally low during the agricultural labour season which roughly extends from May (preparing fields) until September (harvesting). During this period, farmers as well as pastoralists are busy working in their fields and generally spend little time on other activities. Even the local cattle traders temporarily focus on (cotton) farming. Together with the relatively low number of traders from outside the region, this makes for weak market activity.\(^3\) After the last weeding cycle, farmers and traders start to sell draught animals which explains the increase in supply observed in September and October. Subsequently, with the revenues from both their cotton production and the sale of draught animals many farmers start to invest in animals for their cattle herd as well as in new draught animals in anticipation of the next agricultural season. The high supply figures observed between December and

\(^3\) The low number of traders from outside the region has everything to do with the relatively low level of supply per market day, particularly during the agricultural labour season. This means that traders from outside necessarily stay for several market days in order to be able to purchase a sufficient number of cattle. This can be time-consuming and costly.
March are the partial result of this periodically strong demand from farmers. It will be
argued below that this demand occasioned a supply response among several types of market
actors. An additional factor which contributes to the high supply during this interval, is the
so-called stress sales by pastoralists who tend to sell relatively more animals during the dry
season, with the objective of purchasing food grains to supplement their deficient stocks.
This observation equally applies to the Guéné and Karimama markets (cf. Graphs 5.3 and
5.4), where supply peaks are observed around March. Here, the fluctuations in supply are
to a significant extent determined by the same factors that have just been invoked. The
seasonally condensed demand for draught animals contributes to a higher supply, in
particular at the easily accessible Guéné market. In March and to a lesser extent April, the
supply is further strengthened by stress sales among local pastoralists as well as
transhumant pastoralists from Niger who make up part of the supply during those months.
In contrast to the Goumori and Founougo markets where supply decreases from April
until the end of the agricultural season, the pattern is different for Guéné and Karimama. In
general, the northern Borgou region is less focused on farming during the rainy season. In
Karimama, the supply of animals reverses its downward trend in July. In Guéné, only May
is characterised by low supply and the number of animals offered continuously increases in
the following months. This makes the supply patterns at the Guéné market different from
the other markets. The consistently high level of supply is due to a variety of factors among
which market accessibility is the most prominent. The Guéné cattle market has grown
substantially since 1991 when it took over from Kantro village (cf. Section 4.3). The market
nowadays attracts large numbers of farmers and pastoralists not only from the surrounding
area but from southern Borgou as well. In fact, the survey revealed that of all cattle
purchased by farmers, 27 per cent were destined for the southern Borgou region. The
growth of the Guéné market has also been strengthened by an increased supply of cattle
from Nigeria as a result of the relatively strong value of the CFA franc in relation to the
Nigerian Naira. Accordingly, the gradual expansion of the Guéné market has had a
catalytic effect: it attracts more and more traders who, in turn, attract an increasing number
of producers some of whom cover considerable distances in order to supply their cattle to
the Guéné market. This supply response equally reflects the change in sales strategies
among pastoralists which was emphasised in the previous chapter. Many of them are now
prepared to incur significant transaction costs in order to be able to sell in Guéné. They
commonly hire pick-up trucks to transport their cattle to the market. Together, these
factors mean that Guéné is less influenced by the seasonality factors which determine
supply fluctuations at other markets. Nowadays, the Guéné market is the largest cattle
market in Benin.

A final point which highlights a possible contingent factor as having an impact on
seasonal supply concerns the Karimama market for which the number of animals supplied
between December and February is relatively low compared to other markets. This reflects
an exceptional situation. In December 1995, local veterinary officers identified a disease in a
cattle herd close to the market and they decreed a quarantine period for two consecutive
market days. Although the area was declared disease-free in January, the impact on market
supply was felt until February as many pastoralists still hesitated about grazing their herds
in the area and traders were equally hesitant to purchase because of the possibility of
introducing disease into their herd.
Table 5.3 presents a breakdown of cattle purchases according to the market actor. The cattle traders clearly dominate all markets. On average, they accounted for more than three-quarters (76 per cent) of all purchases, with a maximum of 89 per cent at the Goumori market. The second most important group of buyers are the farmers who represent 15 per cent of all animals purchased. Finally, at the four surveyed cattle markets the other cattle purchases are taken care of by pastoralists (5 per cent) and butchers (4 per cent). These two types of buyers appear to play a more substantial role at the Guéné and Karimama markets. This causes supply in Goumori and Founougo to be more straightforwardly dominated by traders.

Table 5.3 Breakdown of demand according to actor and market, December 1995 - November 1996 (n=2250)

<table>
<thead>
<tr>
<th></th>
<th>Goumori (n=680)</th>
<th>Founougo (n=670)</th>
<th>Guéné (n=450)</th>
<th>Karimama (n=450)</th>
<th>all markets (n=2250)</th>
</tr>
</thead>
<tbody>
<tr>
<td>traders</td>
<td>89%</td>
<td>77%</td>
<td>64%</td>
<td>66%</td>
<td>76%</td>
</tr>
<tr>
<td>pastoralists</td>
<td>1%</td>
<td>4%</td>
<td>7%</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>farmers</td>
<td>10%</td>
<td>18%</td>
<td>21%</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>butchers</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Own survey

The differences within the shares of purchases accounted for by pastoralists are directly related to the cattle breed which dominates supply in the two market clusters respectively. Whereas supply in Guéné and Karimama is dominated by cattle of the zebu breed, the Goumori and Founougo markets principally receive borgou breed cattle. Most pastoralists in northern Benin prefer zebu cattle to reinforce their herds for reproduction (bulls) and lactation (heifers and cows). This explains the low number of purchases by pastoralists at the Goumori and Founougo markets.

The market survey reveals the virtual absence of purchases by butchers at the Goumori and Founougo markets, contrary to the situation in Guéné and Karimama (8 per cent and 10 per cent respectively). This distinction can be attributed to the different categories of butchers involved. In the area around Goumori and Founougo, the butchers principally operate on a village scale. The village butcher typically locates his purchases outside the formal cattle markets. Instead, he seeks to capitalise on his familiarity with the surrounding area and tries to obtain information on pastoralists wanting to sell old or diseased animals. Most of his purchases accordingly take place in pastoral villages or in cattle camps. Purchase relations with acquainted producers enable him to occasionally purchase cattle on credit. His own working capital, the number of clients and their weak purchasing power only allow the irregular slaughtering of small numbers of cattle on market days or at the occasion of a particular ceremony. The same remark is true for the village butchers of Guéné and Karimama. On the Karimama and Guéné markets, however, butchers pertain to a different category. Here, the butchers come from larger towns such as Parakou, Kandi and Malanville. In these towns, the consumption of meat in general and of beef in particular is substantially higher due to the purchasing power of at least some of the population such as the civil servants. In view of this, the level of activity of butchers and the higher prices of meat account for additional transaction costs incurred by the purchase of cattle at large formal markets. Moreover, the scale of activity allows for specialisation:
whereas some butchers specialise in the purchase and slaughter of cattle (the so-called "chevillards" or wholesale butchers), others focus on retailing activities. These town butchers prefer the Guéné and Karimama cattle markets because of their easy accessibility for trucks and the volume of weekly supply.

Given the distribution of purchases over various types of buyers, some remarks will now be made with respect to the seasonality of demand in order to investigate whether some buyers concentrate their purchases within a particular period of the year. In general, most animals are purchased by traders and ultimately destined for a local, regional or coastal slaughterhouse. Demand for so-called meat animals is relatively stable throughout the year, with the exception of the interval between September and November when it rises slightly as a result of an abundant supply and concomitant attractive (low) prices (cf. Section 5.2). Nevertheless, demand for cattle was observed to fluctuate not only between different periods of the year but between separate market days as well. Apart from the major seasonal determinants, some contingent factors are worth mentioning because they potentially exert a significant influence upon the number of animals purchased on a particular market day. Similar factors were already identified to explain variations in the supply of cattle. With respect to demand, the fluctuations in the presence of big traders can be crucial. As a rule, big cattle traders travel in groups to long-distance destinations such as Lomé or Ibadan in order to reduce risks or to economise on marketing costs. Consequently, the return of such a group of traders to a particular market is likely to increase the number of animals purchased in the short term. This phenomenon can equally occur over a more sustained period. At the Guéné and Karimama markets for instance, the presence of cattle traders from Lomé and Accra is, to a considerable extent, seasonally determined. The survey revealed that more than 80 per cent of their purchases are concentrated in the December - April period.

However, the principal determinant for seasonal variations in demand is the periodically concentrated purchases by farmers. The seasonality of demand for draught animals is reflected in the survey which reveals that 75 per cent of all purchases by farmers occurred in the interval between January and June. This corresponds to the period in which SONAPRA pays out to farmers revenues from cotton production. Part of these revenues are subsequently invested in the cattle market. The phenomenon boosts market activity and results in high price levels and demand competition for draught animals (bulls and bullocks). Before dealing in detail with prices and competition in the market segment for bulls and bullocks, a few remarks are needed with respect to the supply response of traders, pastoralists as well as farmers to the seasonal demand for draught animals.

The cattle traders in particular attempt to capitalise on farmer demand in several ways. For instance, some traders purchase cattle before January when price levels are attractive. Subsequently, the animals are kept in the herd for some months before their final sale (temporal arbitrage). The supply response of traders is reflected in the observation that 75 per cent of the transactions in which a trader is the supplier, occurred within the above-mentioned interval. The relationship between traders and farmers is further illustrated by the fact that traders supplied 21 per cent of the purchases of farmers, whereas they account for only 12 per cent of supply on the whole (cf. Table 5.1).

The increasingly prominent role of farmers in the cattle market is reflected in the results of the market survey which reveal that in 34 per cent of all draught animal transactions, the purchasing as well as the selling actors is a farmer. These transactions consist of animals which have already been trained in draught power and can be employed for an additional year or two. At all cattle markets, this constitutes a recent phenomenon.
It shows that farmers deliberately chose to shorten the career of their draught animals in order to capitalise on a (seasonal) demand for 'trained animals'. It further illustrates how farmers have become acquainted with the cattle market. Finally, farmers are more aware than anyone else of the convenience of using mature draught animals which have already served for traction. They are likely to be a credible actor in the market segment for draught animals in the sense that a transaction between farmers possibly profits from mutual confidence.

For the pastoralists, finally, the 'draught animal season' at the cattle market corresponds to the period of the year during which they sell cattle in order to obtain funds for the purchase of food grains. Nevertheless, the sales strategies of pastoralists revealed some specific responses to the periodic boost of market activity. In the area surrounding Goumori and Founougo for instance, some pastoralists anticipated the expected arrival of cotton revenues in a particular village on a particular day, and directed their cattle to the market in that area so as to be there at the time of payment. Others either delayed their sale until they were informed about favourable circumstances at a particular market or attempted a sale for two or three consecutive market days, before finally concluding a transaction. The market survey reveals that the type of cattle offered for sale is equally subject to strategic supply decisions. In Goumori and Founougo, 70 per cent of the pastoralists' sales of high quality bulls and bullocks took place between January and June. High quality male animals are specifically wanted for animal traction purposes.

We will finalise this section on supply and demand patterns with the observation that at all four cattle markets the total number of animals supplied exceeded by far the total number of animals purchased, throughout the year. At the markets of Goumori and Founougo, for which detailed figures were available, the total number of animals purchased during the period in which the survey was carried out represented 44 per cent and 45 per cent respectively of total supply. A substantial number of the animals which are not sold on a particular market day (the 'carry-over') reappear on the next market day or at another cattle market. At first sight, the apparently substantial gap between supply and demand might lead to conclusions of the existence of a buyer's market. This is, however, too simplistic. In fact, a more detailed understanding of the nature of competition and prices can only be achieved when the cattle market is not considered as an entity, but rather as being composed of distinct market segments. The segmentation of the cattle market will be the subject of the following paragraphs.

The segmentation of the cattle market

The segmentation of the cattle market is represented by the observation that specific types of buyers have a preference for the purchase of one or more specific types of cattle. Table 5.4 shows that the purchases of the four groups of buyers (traders, pastoralists, farmers and butchers) are not equally spread over the four categories of animals. For the interpretation of Table 5.4 it has to be remembered that cattle traders account for more than 75 per cent

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4 Since more and more Fulani pastoralists are engaged in cotton production, they are well aware of the periodicity of payments.

5 An additional explanation might be related to the practice, observed among pastoralists, of bringing a larger number of animals to the market than are actually offered for sale (cf. Holtzman & Kulibaba 1992, 53). This is done for reasons of herding convenience.
of all purchases (cf. Table 5.3). In absolute numbers, this makes them the dominant buyers in all market segments. Still, Table 5.4 shows that 65 per cent of their purchases consist of either bulls or cows. Purchases in the bulls and bullocks segments, the preferred animals for draught power, account for 90 per cent of farmers' purchases. Purchases by pastoralists and butchers are least important in absolute numbers but are specifically focused on heifers and cows respectively.

<table>
<thead>
<tr>
<th>Bull (n=1696)</th>
<th>Recessed (n=119)</th>
<th>Farmers (n=335)</th>
<th>Butchers (n=91)</th>
</tr>
</thead>
<tbody>
<tr>
<td>32%</td>
<td>5%</td>
<td>39%</td>
<td>29%</td>
</tr>
<tr>
<td>20%</td>
<td>28%</td>
<td>55%</td>
<td>3%</td>
</tr>
<tr>
<td>33%</td>
<td>2%</td>
<td>1%</td>
<td>62%</td>
</tr>
<tr>
<td>15%</td>
<td>65%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Own survey

The segmentation of the cattle market is further complicated by an additional variable which distinguishes between high and low quality of each type of cattle. Although no exact data are available on the absolute numbers of high and low quality animals supplied, it has become clear that the number of low quality animals commonly exceeds the number of high quality animals, irrespective of the type of cattle. The combination of the 'type of cattle' and 'quality of animal' variables together makes for eight market segments in which we can assess the degree of competition. In addition to the number of animals available within each segment, such an analysis will have to take into account the number and type of buyers as well as eventual collusion among them.

Given the relatively low number of animals supplied and the relatively strong demand, competition is usually high within the market segments for high quality cattle. For instance, within the market segment for high quality bulls, stiff demand competition exists between farmers and traders. Almost 60 per cent of the supply of high quality bulls consists of draught animals which are attractive to both farmers (traction performance and no need for further training) and traders (well-fattened animals attract good prices at coastal markets). Moreover, some of these high quality bulls possess exceptional reproductive qualities and are recognised for them (the so-called géniteurs). These géniteurs are popular with specialised traders who resell them to pastoralists. Together, farmers and traders account for 97 per cent of all purchases within this segment, a percentage which is even higher when high quality bullocks are included (98 per cent). In accordance with earlier remarks, demand competition is strongest during the pre-agricultural season: for instance, more than 65 per cent of high quality bullocks were purchased in this period. To some extent, the situation within the high quality heifer segment is comparable to that of good quality bulls. The low number of available animals and the existence of two competing groups (pastoralists and traders) have resulted in considerable demand competition. Thus, competition for cattle is strongest in the high quality segments of the market, most notably for bulls and bullocks. In this respect, the reason for purchase can be of crucial importance. Farmers may be prepared to pay a higher price than a trader for an identical animal. This readiness is closely related to the purpose of the transaction. For instance, when a cattle trader seeks to determine the maximum price he is willing to pay, he takes into account the price he will probably obtain at the sales market minus all transaction costs, which comes
down to a weight-price ratio. For a farmer, however, the mode of calculation is different. He will tend to consider those physical qualities of an animal relevant for draught power (docility, strength). Moreover, his profits depend more on the agricultural surplus production he hopes to realise than on a beneficial sale. A final factor concerns the fact that draught animals usually increase in value during the period they are employed. As a result of these deliberations, farmers are willing to pay more than a trader. A comparable situation exists when the purchase of géniteurs is concerned. Given the profitability of this type of trade, the trader is prepared to pay a higher price than, for instance, another trader whose purpose is to buy cattle for sale to a Cotonou or Lomé butcher. It will be argued in Section 8.3 that the trade in géniteurs is subject to an entry barrier based on pastoral skills. The arguments given show that prices can differ according to the objective of the buyer. This should be kept in mind when the seasonal price fluctuations within high quality market segments are discussed in Section 5.2. For all high quality segments together, supply is accounted for by pastoralists (64 per cent), farmers (24 per cent) and traders (12 per cent).

On the supply side, the market actors rarely collaborate in order to control price levels. This would be difficult given the individual character of supply. Except for traders who regularly carry out transactions, each animal is supplied by a different farmer or pastoralist.

A contrasting picture emerges on the 'low quality market segments' where a large number of animals are supplied and demand is confined to the purchase of cattle for slaughter purposes. The surplus of unsold animals referred to above is found especially in these segments. Butchers typically concentrate their purchases within the low quality cattle segments (more than 80 per cent). They preferably buy old, diseased cows which cannot be transported far and have to be slaughtered shortly after purchase. However, in absolute numbers most low quality cattle are purchased by traders who transport them to consumer markets. Given the regularity and high level of supply compared to demand, as well as the state of the animals, the 'low quality section' of the cattle market could be characterised as a 'buyer's segment'. To a large extent, this is substantiated by the relatively constant level of prices for most types of low quality cattle. In other words, the supplying actors have to be considered 'price-takers'.

Given the distinctive positions of cattle buyers in the market segments distinguished above, some remarks have to be made on the composition of the various buyers' groups as well as on the degree of collusion within and between groups. At all cattle markets in northern Benin, cattle traders dominate the demand side. Similar to the situation observed at other West African cattle markets, the number of big traders is small and the number of small (sometimes occasional) traders is large (cf. Cook 1991; Holtzman & Kulibaba 1992). Whereas big as well as small cattle traders tend to be regular visitors at cattle markets, the purchases by farmers and pastoralists have an incidental character. Each animal is purchased by a different farmer or pastoralist. The number of butchers varies according to the market. It has already been explained why they are virtually absent in Goumori and Founougo but present in more substantial numbers at the Guéné and Karimama markets. In general, collusion with the objective of influencing prices is close to non-existent, irrespective of the market segment. With cattle traders accounting for more than 75 per cent of all purchases,

6 Occasionally, a farmer's readiness to purchase an animal coupled with his ignorance of prevailing price levels results in the payment of exceptionally high amounts.

7 At the cattle markets surveyed, the size of these respective groups was roughly estimated at around 30 big cattle traders and around 150 smaller traders (cf. Section 7.1 for a wealth ranking of traders).
the oligopoly hypothesis would have been conceivable. In other words, we could expect that collusion among traders occurs with the objective of keeping prices as low as possible. However, the number of cattle traders is considerable and the composition of the group very heterogeneous. In addition to functional differences (occasional versus permanent traders) and capacity differences (big versus small traders), other factors such as ethnicity or professional background prevent a close in-market collusion. The only type of market behaviour which resembles collusion was observed among the group of big, wealthy cattle traders (the so-called grands commerçants: cf. Section 7.1). Members of this group do not interfere during price negotiations and they discuss maximum prices for specific animals. However, the professional code of non-interference among big cattle traders becomes rather 'symbolic' when its success in terms of determining prices is assessed. Even though this small group of big traders accounts for a relatively high percentage of purchases, their impact on prices is subject to general supply and demand conditions in the context of a segmented market.

5.2 Cattle prices

This section addresses the question of cattle prices and seeks to establish a detailed account of the differences between prices for various types and qualities of cattle, the differences between prices at various markets, the fluctuation of prices in a historical perspective and the fluctuation of prices in a seasonal perspective. For the large part, it will be based on the price data collected during the year-round market survey and in particular the price sample (cf. Section 1.4). Our objective is to highlight the nature and variety of factors that affect cattle prices. The overview helps to establish the framework through which we can better understand the elements that explain the nature of cattle traders' strategies. The findings will demonstrate that price formation at cattle markets in northern Benin is a highly complex process which involves a broad range of factors. This complexity constitutes a major structural feature of the cattle trade. For instance, the apparent difficulty for cattle traders to make reliable price estimates beforehand reveals a degree of uncertainty with regard to potential profit margins to be realised through the sale of cattle at a local, regional or long-distance destination. On the other hand, it provides opportunities for others who capitalise on the unpredictability of prices.

The present section consists of three parts. First, some general remarks will be made about price determinants and price levels for various types and qualities of cattle. Second, we will examine price developments over a longer time period. Finally, the seasonal fluctuations of cattle prices over the duration of the market survey will be examined.

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8 In his study on cattle markets in Nigeria, Cook (1991) equally rejected the oligopoly hypothesis, stating that '.. it is difficult to imagine an oligopoly having control over the cattle market because markets are numerous, actors are numerous, communication is relatively poor and prices variable ..' (1991, 52).

9 This implies that we do not perform a detailed (regression) analysis to obtain the statistical (relative) significance of each of the identified variables in explaining price formation and variation (cf. Dijkstra 1997, 113-153 who tested vertical differentiation in marketing channels). Our interest was to identify the relevant variables as such. In any case, performing a comprehensive statistical analysis would have been a complex exercise given the fact that the transaction sample (with data on supply and demand) and the price sample were carried out separately (cf. Section 1.4).
Price levels and determinants of prices

Ideally, prices of cattle are the result of supply and demand in the context of market segmentation. However, additional factors have to be taken into account. For instance, making general statements about cattle prices is an extremely hazardous venture mainly due to their lack of standardisation which can be considered as one of the most outstanding features of West African cattle markets in general. According to Cook (1991, 52), ‘... pricing [of cattle] depends on the visual assessment of weight, age and health in the context of market supply and demand ...’. His statement about Nigerian cattle markets reflects the situation in Benin. At all cattle markets in Benin, no cattle are sold at a ‘fixed per kilogram price’. Despite recurrent efforts by the authorities and the periodic use of scales during the colonial era, prices are still determined by a process of eye judgement and negotiation between buyer and seller. No ‘weight-and-grade’ system is used. Price formation is therefore subject to various factors most of which are linked to the supply and demand conditions examined in the previous section. Before dealing with the outcome of the price formation process, i.e. absolute and relative price levels at cattle markets, some brief remarks will be made on the role of market transparency in the process of price formation.

First, market-places for cattle in West Africa are usually characterised by a low degree of structure and can make a chaotic impression. Separate sections for distinct types of cattle are absent or disregarded, the limits of the market-place are imprecise as are market hours, the number of persons present (buyers, sellers, vendors, visitors etc.) is extremely high and dust is everywhere during the dry season. Hence, the spread of price information on a particular market day can be hampered. This is particularly true for inexperienced, incidental buyers or sellers such as a farmer or a pastoralist. Frequent visitors such as cattle traders are much more experienced in dealing with these imperfections. Second, the mode of market organisation can have a similar role in concealing price information and influencing price levels. In the previous chapter, a distinction was made between the modes of organisation of ‘traditional’ and ‘modern’ cattle markets. It is argued here that the role of middlemen (dillalî) at traditional markets is detrimental to the transparency of the price negotiations. In addition to their conventional tasks of testifying transactions for which they receive a commission, most middlemen have elaborated strategies to increase their revenues, capitalising on their intermediate and allegedly neutral position between buyer and seller. The following cases illustrate this point:

Case 1

In order to obstruct the market (bloquer le marché), a trader-buyer gave some money to the middleman who subsequently informed the pastoralist-seller, who had entrusted his animal to him, that ‘there are no buyers’. The middleman continued to provide this ‘information’ until the end of the day. At that moment, he introduced the trader-buyer who concluded the purchase at a favourable price because the pastoralist did not want to take his animal back to the village.

See also Van Der Laan (1997) on standardisation in African agricultural marketing.

Traders and butchers have always refused the introduction of a weight-and-grade system. During the 1980s, the West African institution CEBV (Communauté Économique du Bétail et de la Viande) financed the installation of scales at the Parakou, Malanville and Kolokondé markets with the objective of facilitating transactions at a fixed per kilogram live weight basis. However, the scales were ignored. For instance, shortly after the installation of a scale in Parakou, the cattle traders and butchers decided to relocate the cattle market to a site some 150 metres away.
Case 2

A pastoralist-seller told a middleman to sell his animal for 100,000 CFA francs. The middleman went on to find a buyer and he succeeded in selling the animal for 105,000 CFA francs. However, he only presented 100,000 francs to the pastoralist. In a similar case, a middleman told the pastoralist that the maximum price he could receive was 95,000 francs, although it was 100,000 francs in reality. In both cases, the middleman took 5,000 francs which is five times the amount of his usual commission (500 francs from both parties).

Case 3

At a time of strong demand and tight supply, a pastoralist-seller provided his middleman with an extra commission of 1,000 to 5,000 CFA francs in an attempt to increase the price. The middleman, in close co-operation with his colleagues, accordingly disseminated 'information' on how much various 'traders' had offered for the animal, thus trying to artificially increase the price. In these situations, the final commission varies according to the satisfaction of the seller.

It appears that the middleman's strategies are based on the avoidance of direct face to face contact between buyer and seller, which is feasible in a market context such as described above. At traditional markets, pastoralists usually entrust the animal to their middleman upon arrival. They will not be with their middleman continuously but instead make other purchases or 'socialise' with friends. As a result of what could be qualified vertical collusion, prices are not only the outcome of supply and demand conditions but equally of the imperfect spread of information and the intervention of dillali. Depending on the situation and the profits involved, the latter acts to the detriment of either the buyer or the seller. It is difficult to conclude about the extent to which these strategies are applied at traditional markets, but informants claimed to encounter several cases each market day. At modern cattle markets where the tasks of the middleman have been substituted for by a market committee, buyer and seller negotiate face to face. Having investigated the potential impact of the organisation of cattle markets on price (in)formation, the following paragraphs will discuss the general price level of cattle at the four markets in the survey.

Graph 5.5 presents the annual price averages for the surveyed markets and distinguishes between the type and quality of animals. The first observation concerns the distinctive absolute price levels of the Goumori and Founougo markets on the one hand, and the Guéné and Karimama markets on the other. On average, the price level at Goumori and Founougo is some 30 per cent lower compared to the level found at Guéné and Karimama. The difference is due to the dominant cattle breed which prevails at the respective markets. At the Guéné and Karimama markets, the supply of cattle predominantly consists of the zebu breed. In contrast, the Goumori and Founougo markets (as well as most other cattle markets situated in the southern Borgou region) are typically supplied with borgou breed animals. In general, it is estimated that at least 80 per cent of the animals supplied to one of the four markets were cattle of the dominant breed in those areas or, to be more precise, of crossbreeds dominated either by borgou or by zebu cattle. The differentiation in breeds results in distinctive price levels. The zebu animals are generally larger in size and

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12 For a discussion on the interface between pastoralist and cattle trader in northern Benin see Quarles van Ufford & Djédjébi (1997).

13 The market survey exclusively and deliberately used cattle of the dominant breed for the price samples in order to facilitate the analysis of price fluctuations.
accordingly weigh more. Within both groups, price levels vary little according to single markets. This can be considered as a sign of spatial market integration within the clusters. It should be emphasised, though, that the figures present year-round averages and thus hide variations between seasons as well as between individual animals. Due to a lack of transparency in price formation and negotiation, prices may occasionally vary between markets in the same cluster. One such situation appears in Graph 5.5 and concerns the price differential between the Goumori and Founougo markets with respect to high quality bulls (124,000 francs and 135,000 francs respectively). This differential cannot be explained by transport costs. Instead, it is biased by the situation during the month of May, when context-specific circumstances and poor spread of information resulted in exceptionally high prices at the Goumori market (cf. Graph 5.7). When this month is left out of the calculation, the average price for a high quality bull comes down to 127,000 francs.

**Graph 5.5** Average cattle prices per market, type of cattle and quality of cattle, December 1995 - November 1996

Source: Own survey

The second observation concerns the price differentials between various types of cattle. This is further illustrated by Graph 5.6 which presents the relationship between the prices of all types of cattle irrespective of the market. The graph reveals that the average annual prices for heifers and bullocks are comparable, the mean value of a heifer being only slightly higher. As could be expected, cows are more costly than heifers and bullocks, mainly because of the weight-size dimension. Expressed in percentages, the average price of a cow constitutes 131 per cent and 123 per cent of the price of a bullock and a heifer respectively.
Given these ratios, the average annual price of a bull clearly outweighs the values of the other types of cattle, making up 197 per cent, 150 per cent and 184 per cent of the respective values of a bullock, a heifer and a cow. Together with Graph 5.5, the findings make it clear that the price level for bulls is not only highest in absolute terms but also in relative terms. The outcome of the calculations is therefore an indication of the relatively strong competition for bulls in the cattle market which is due to advantages in weight and size but equally to strong demand from traders as well as from farmers.

Graph 5.6 Relationships between the prices of four types of cattle

![Graph 5.6](image)

Source: Own survey

Annual variation in prices

Given the segmented structure of the cattle market, the absence of a weight-and-grade system and the sheer number of markets, the rigid enumeration of cattle prices is a particularly difficult job. Sufficiently detailed, long-term reliable data on cattle prices are therefore scarce, particularly in coastal West African countries where livestock keeping and trading have never been accorded priority in agricultural policy. Also in Benin, no long-term price series exist and the available fragmentary information is commonly limited to aggregate prices for cattle of a singular category. The limited information available does not appear very reliable as some price levels remain conspicuously stable for sustained periods of time. The analysis of long-term trends in cattle prices has therefore to rely upon oral sources as well as available price series for neighbouring countries such as Niger and Nigeria.

In Chapter 3 it was argued that cattle prices featured a steep increase during the colonial era when the demand for meat was strengthened as a result of flourishing cash crop economies. In West Africa, the southern parts of Ghana and Nigeria but equally the economies of southern Togo and Benin increasingly attracted cattle from the livestock production areas in the north. After a period of stabilisation during the early 1960s, prices rose again as a result of booming oil and mineral exports in Nigeria and Niger respectively. The impact of the export economy on urban meat demand and cattle prices has been convincingly demonstrated by Fafchamps & Gavian (1997) and Cook (1991) who analysed long-term price series for Niger and Nigeria respectively. According to cattle traders, price levels in Benin fluctuated accordingly and the overall price level was on the rise until the late 1960s and early 1970s. Throughout West Africa, the severe drought periods in 1973 and
1974 as well as in 1984 and 1985 caused a substantial price slump at first, followed by price recovery since herds had to be reconstituted (Fafchamps & Gavian 1996). Over a more sustained period, the economic crisis of the 1980s also had its impact on cattle prices through a reduced urban demand. In Benin, cattle prices tended to stabilise or even decline relative to the consumer price index (République du Bénin 1988). An analysis of deflated cattle prices in Nigeria led Cook (1991) to the conclusion that the downward trend of real cattle prices had already set in around 1975 and would last until 1985. In Benin, the price level improved somewhat in the early 1990s. In 1994, the devaluation of the CFA franc caused substantial inflation in Benin as a result of which cattle prices rose steeply as well. In fact, the price increase for cattle was considerably higher compared to the general inflation rate, a situation which was also observed in other West African countries (République du Mali 1996; Quarles van Ufford & Klaasse Bos 1996). For instance, prices for high quality bulls almost doubled within the interval of several months with the sustained price increase levelling off at an estimated 50 per cent-75 per cent by the end of the year. According to traders, inflation for other types of cattle was somewhat lower, but still approaching the level of the consumer price index which increased by around 60 per cent in 1994 (Dioné 1995, 24). In the years which followed the CFA franc devaluation, the general price level only increased slightly. During the interval between December 1995 and November 1996 when the market survey was undertaken, no significant monetary shocks occurred. Furthermore, climatic conditions were not exceptionally good or bad in the usual context of high spatial and temporal variability of rainfall. On the contrary, the 1997-1998 agricultural growing season experienced a substantial shortage of rainfall, notably in the northern Borgou region as well as in Niger. Although no data were collected at that time, several visits to the cattle markets showed that the drought did have an impact on general price levels. The high number of stress sales among pastoralists was reflected in an overall increase in cattle supply, composed mainly of low quality animals, and subsequent price decreases. However, the relative scarcity of good quality animals at the same time pushed prices upwards within this particular segment.

The distinctive price fluctuations observed in specific market segments are typical of price patterns in the cattle trade. The following paragraphs will examine the seasonal price fluctuations for the period of the market survey.

**Seasonal variation in prices**

In general, seasonality may affect the price level from the supply side or from the demand side. The conditions which determine the monthly fluctuations in supply and demand were put forward in the previous section. The seasonal fluctuation of prices for all major types and quality of cattle (the market segments) is shown in Graphs 5.7-5.22. The graphs reflect earlier remarks concerning the seasonal fluctuations of supply and demand for specific types of cattle as well as the degree of seasonal competition within market segments. They also reflect the somewhat more contingent factors which have an impact on price levels.

First of all, the seasonal demand for draught animals at the Goumori and Founougo markets stands out clearly. The price fluctuations for both high quality *bulls* and *bullocks*

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14 Cook demonstrated that '... although the price of cattle rose almost continuously from 1975 to 1985, prices of other commodities did even more, so that the relative value of cattle fell ..' (1991, 48). Despite his remarks, traders from Benin claimed that Nigeria constituted their most favourable and profitable destination during the late 1970s and early 1980s.
reveal a dry-season peak (cf. Graphs 5.7-5.8, 5.11-5.12). The highest price level was attained during the month of May when demand for draught animals was still high and the supply of high quality bulls and bullocks lagged behind, since pasture and water were limited. In Goumori, exceptionally high price levels were attained with many farmers willing to pay more than 200,000 francs for a high quality bull. As a result, trade between Goumori and Cotonou temporarily ceased since the price differential had become negligible. Prices then dropped from the month of June onwards. This was due to a sharp reduction in trade activity during the agricultural labour season when most people were working in the fields. The increase in cattle supply after the harvest period with the release of draught animals further contributed to the price decrease. The graphs show that within the low quality segments, prices were much more stable. Accordingly, the margin between the high and low quality price levels is reduced from August onwards, notably for the bullock segment (cf. Graphs 5.11-5.12). At the Guéné and Karimama markets, the patterns of price fluctuation for bulls and bullocks are somewhat less clear-cut (cf. Graphs 5.9-5.10, 5.13-5.14). Although high prices were observed during the pre-agricultural season, the level continued to be high during the rainy season with peaks around July/August for both bulls and bullocks. Two factors contribute to these divergent patterns. First, in contrast to the situation in Goumori and Founougo where many local traders temporarily focus on farming, general trade activity in Guéné and Karimama continues during the agricultural labour season since farming plays a less prominent role among local traders. Moreover, it has already been emphasised that the number of non-local traders is much higher. Together with low levels of supply, this causes a more consistent price level. Second, the transactions of so-called géniteurs are likely to push average price levels upwards. In Guéné, this phenomenon explains the peak in high quality bullock prices in August (cf. Graph 5.13).

The patterns for low quality bullocks are erratic and differ from the stable situation observed in Goumori and Founougo. However, although erratic at first sight, the price fluctuations at the Guéné/Karimama markets appear to reveal the structure of demand put forward in the previous section. In the first place, the demand for high quality draught power animals during the dry season and the accordingly high prices appeared to force some farmers into the low quality bullock segment. Even though the number of animals supplied in this market segment is relatively high, the shift is likely to have contributed to periodic price increases. Second, the presence of a substantial number of butchers on a particular market day or succession of market days equally contributes to a rising price level.

Prices in the market segment for inferior quality cows are relatively stable at the Goumori and Founougo markets (cf. Graphs 5.15-5.16). The number of animals concerned is low compared to the segments discussed above. The type of cattle supplied typically contains a substantial number of old and often diseased female animals. The main group of buyers consists of small (often local) traders. The local butchers preferably purchase this type of cattle outside the market, i.e. in pastoral villages. Again, the price level appears to be slightly more sensitive at the Guéné and Karimama markets (cf. Graphs 5.17-5.18) which can be attributed to the demand structure.
Seasonal price fluctuations of four types of cattle, per market

Average monthly prices for bulls

5.7 Goumori market

5.8 Founougo market

5.9 Guéné market

5.10 Karimama market

Average monthly prices for bullocks

5.11 Goumori market

5.12 Founougo market

5.13 Guéné market

5.14 Karimama market

High quality bull

Low quality bull

High quality bullock

Low quality bullock
Average monthly prices for cows

5.15 Goumori market

5.16 Founougo market

5.17 Guéné market

5.18 Karimama market

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Average monthly prices for heifers

5.19 Goumori market

5.20 Founougo market

5.21 Guéné market

5.22 Karimama market

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Source: Own survey

Note: Standard Deviations (x 1,000 francs) are 23 (high quality) and 9 (low quality) for Graph 5.7; 17 and 15 (5.8); 21 and 13 (5.9); 23 and 14 (5.10); 17 and 6 (5.11); 13 and 6 (5.12); 13 and 11 (5.13); 8 and 12 (5.14); 14 and 9 (5.15); 10 and 6 (5.16); 20 and 11(5.17); 17 and 14 (5.18); 9 and 7 (5.19); 7 and 7 (5.20); 9 and 9 (5.21) and 8 and 8 (5.22).
With respect to the high quality cows, a substantial price increase occurs in Guéné and Karimama from the month of July onwards. During the rainy season, the cows recover from dry-season diseases to which female cattle are particularly sensitive. The health of the better quality animals supplied to the market just after the rainy season (often upon the pastoralist's return from the short transhumance period) attracts traders. In fact, a similar upheaval during July and August equally appears at all other markets (cf. Graphs 5.15-5.18).

Finally, the prices for heifers (cf. Graphs 5.19-5.22) appear to follow seasonal fluctuations similar to those of cows. Good quality heifers are generally scarce in number, and prices therefore reveal slight peaks not only during the dry season when supply is even scarcer, but also just after the rainy season when the animals are in good shape. Low quality heifers are generally purchased for slaughter and prices follow the patterns in most other low quality segments.

5.3 The structure of trade flows

In the methodology section, the 'structure of trade flows' was referred to as the so-called 'commercial system' or marketing channel. The commercial system was defined as the vertical relationship between the market of origin down to the market of destination including all possibly related markets which correspond to alternative outlets. It was further emphasised that the concept of market in this definition referred to formal (i.e. physical) markets as well as informal markets. The gradual emergence of new cattle markets all over northern Benin and in particular over the southern Borgou region has determined the structure of trade as it is observed today. Cattle transactions increasingly take place at formal markets, substituting for the traditional transactions at informal markets (cattle camps, farms or transhumance spots).

Within the commercial system for cattle trade in Benin, three 'levels of trade' can be distinguished: local, regional and (inter)national. Each level represents a distinct geographical scope of transactions, in terms of distances covered. Its relevance is in the observation that to a large extent the nature and purpose of transactions carried out on each level is distinct and merits a separate analysis. Before going into an examination and breakdown of the specific trade flows of which each level is composed, the three distinctive levels will be defined in detail.

Most cattle which enter the marketing channel belong to farmers and pastoralists who live in northern Benin. It was stated earlier that 90 per cent of the national cattle herd is concentrated in either Borgou (65 per cent) or Atacora (25 per cent) provinces (République du Bénin 1994). Within the area covered by these two provinces, several clusters of markets can be distinguished. The markets within a cluster are not only linked to each other but together receive the cattle from a geographically confined hinterland. These clusters, together with their corresponding hinterland, will be labelled 'local exchange circuits'. This term is thought to best reflect the dynamics observed within these zones. When cattle enter the marketing channel, they are exchanged at a formal or informal

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15 It appears from Map 5.1 that some of the local exchange circuits are partly situated across Benin's administrative borders. Although this implies the existence of international transactions, the circuits will be referred to as 'local' in order to distinguish them from long-distance (inter)national trade.
market. The formal cattle markets within a local exchange circuit differ not only in size but also in orientation. A distinction is therefore made between locally oriented markets on the one hand and regionally or internationally orientated markets on the other. Whereas the latter type of market supplies the 'input' for regional and (inter)national flows, the former has a predominantly local function. The geographical location of the various local exchange circuits in northern Benin is presented in Map 5.1. Some parts of northern Benin are not covered by an exchange circuit. Here, the density of cattle markets and the intensity of cattle trade is low. Part of this area is covered by protected forests or national parks. For the remaining part, the nature of transactions is purely informal and destined at a variety of exchange circuits. Map 5.1 equally represents the regional level of trade. The regional trade flows take the shape of corridors that link single local exchange circuits. Map 5.2, finally, shows the national and international level of trade. This will be referred to as the long-distance trade.

On the basis of the market survey, the spatial structure of trade flows can be quantified according to the relative importance of each of the three levels. Table 5.5 presents an overview.

Table 5.5 Breakdown of cattle trade flows according to market of departure, December 1995 - November 1996 (n=2250)

<table>
<thead>
<tr>
<th></th>
<th>Goumori (n=680)</th>
<th>Founougo (n=670)</th>
<th>Guéné (n=450)</th>
<th>Karimama (n=450)</th>
<th>all markets (n=2250)</th>
</tr>
</thead>
<tbody>
<tr>
<td>local level</td>
<td>13%</td>
<td>31%</td>
<td>42%</td>
<td>44%</td>
<td>31%</td>
</tr>
<tr>
<td>regional level</td>
<td>62%</td>
<td>22%</td>
<td>30%</td>
<td>19%</td>
<td>34%</td>
</tr>
<tr>
<td>(inter)national level</td>
<td>25%</td>
<td>47%</td>
<td>28%</td>
<td>37%</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Own survey

A preliminary conclusion to be drawn from this table is the almost equal importance in relative size of local, regional and (inter)national trade flows when the data are grouped for all markets together. Significant variations exist, however, between the markets included in the survey. Sections 5.4 to 5.6 will investigate in detail the exact composition and (historical) background of each of these trade flows. First, Section 5.4 discusses the local and regional levels of trade. Following this, particular attention will be paid to the national and international destinations of cattle, i.e. the long-distance trade, in Sections 5.5 and 5.6.
Map 5.1 Local exchange circuits and regional patterns of cattle trade

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- Map showing local exchange circuits and regional patterns of cattle trade in various regions.
- Key locations:
  - Burkina Faso
  - Niger
  - Benin
  - Togo
  - Nigeria
- Markers indicating different types of markets:
  - Locally or regionally oriented market
  - Internationally oriented market
- Arrow indicating regional trade
- Dashed line indicating limit of local exchange circuit

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Map 5.2 National and international patterns of cattle trade
5.4 Trade flows of cattle: the local and regional levels

Table 5.6 provides a quantitative overview of the movements of cattle at the local and regional levels of trade and represents the relative importance of trade flows from the four markets. The international destinations are included to facilitate comparison.

Table 5.6 Breakdown of local and regional cattle trade according to market of departure, December 1995 - November 1996 (n=2250)

<table>
<thead>
<tr>
<th>Local destinations:</th>
<th>Goumori (n=680)</th>
<th>Founougo (n=670)</th>
<th>Guéné (n=450)</th>
<th>Karimama (n=450)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange circuit I</td>
<td>-</td>
<td>-</td>
<td>41%</td>
<td>43%</td>
</tr>
<tr>
<td>Exchange circuit II</td>
<td>13%</td>
<td>31%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Regional destinations:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parakou</td>
<td>3%</td>
<td>5%</td>
<td>17%</td>
<td>14%</td>
</tr>
<tr>
<td>Kolokondé</td>
<td>58%</td>
<td>16%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Exchange circuit III</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>National destinations</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>International destinations</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

(*) the exchange circuits I - III correspond to Map 5.1.

Source: Own survey

The local level

Table 5.6 reveals the importance of movements within the local exchange circuit. Of all animals purchased at the Guéné and Karimama markets, 41 per cent and 43 per cent respectively had local destinations. The phenomenon occurs to a much lesser extent at the Goumori and Founougo markets. The difference between the two clusters of markets is principally explained by the importance of Malanville as a destination market for meat animals purchased in Karimama and Guéné. Malanville is a fast-growing town with an internationally oriented market place. Its level of meat consumption is relatively high which is partly due to the high number of visitors on market days (Friday, Saturday and Sunday). In order to obtain a more detailed picture of the nature of cattle trade flows within the respective exchange circuits Table 5.7 provides a breakdown of movements according to the purpose of purchase. Not surprisingly, a large part of the cattle exchanged within the local circuits are draught power animals. This type of transaction dominates (59 per cent) within the region of Founougo and Goumori which is well known for its high adoption rate of this technique. Second in importance are the transactions (34 per cent and 23 per cent respectively) of a purely commercial character, i.e. those animals purchased to be resold. These transactions typically reflect the dynamics which exist at the local trade level. Earlier in this section, it was stated that traders account for 12 per cent of supply at the surveyed markets.
Table 5.7  Breakdown of trade flows within local exchange circuits according to purpose of purchase, December 1995 - November 1996 (n = 683)

<table>
<thead>
<tr>
<th></th>
<th>Guéné/Karimama circuit (n=387)</th>
<th>Founougo/Goumori circuit (n=296)</th>
</tr>
</thead>
<tbody>
<tr>
<td>trade</td>
<td>34%</td>
<td>23%</td>
</tr>
<tr>
<td>agriculture</td>
<td>31%</td>
<td>59%</td>
</tr>
<tr>
<td>pastoralism</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>butchery</td>
<td>16%</td>
<td>2%</td>
</tr>
<tr>
<td>other</td>
<td>-</td>
<td>1%</td>
</tr>
<tr>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Own survey

The dynamics at the local level to some extent contrast with the conventional image of cattle finding their way to the coastal market's slaughterhouse by subsequently passing through a collection market (transaction between pastoralist and local trader) and a distribution market (transaction between local trader and long-distance trader). Several studies on the West African cattle trade have used Herman's model which distinguishes between collection, distribution and terminal markets (Herman 1983). Herman's categorisation of markets is based on geographical location, dominant type of transactions and the role of market actors. Accordingly, collection markets are situated in livestock production zones and receive limited numbers of cattle from producers who sell primarily to local traders. The distribution markets are much larger in size and serve as purchase points for long-distance cattle traders. In addition, these markets are visited by traders and butchers who serve a clientele in nearby intermediate (medium-sized) towns. The terminal markets are found in the main West African consumer centres. Here, long-distance traders and butchers meet. Although this model roughly corresponds to the structure of the cattle trade in Benin such as represented in Section 5.3, it omits two points. The first is transactions between distribution markets and other types of regional trade. The importance of these regional flows is demonstrated in Table 5.6. Second, the model tends to overlook or at least underestimate the dynamics of trade at the local level because it is preoccupied with long-distance trading. The dynamic trade flows within the so-called local exchange circuits consist of much more than smaller collection markets supplying larger distribution markets. The variety of purposes for local level transactions was shown in Table 5.7. Apart from cattle purchases for animal traction, pastoralism or slaughterhouses, these consist of transactions by traders attempting to capitalise on price differentials between markets, between market days and even between market hours, since some traders purchase early in the morning and sell at a later hour when the number of buyers has increased. Moreover, they try to take advantage of price differentials between formal markets and informal markets. The accordingly large range of transactions carried out by a variety of actors at formal and informal markets is shown in the following scheme in which the impact of the developments mentioned in the previous chapter comes out clearly.

Hodder & Ukwu (1969) refer to the same type of markets as entrepôt markets or border markets between ecological zones where long-distance traders purchase commodities for sale at retail markets.
In addition to the increased use of draught power and the changes in the pastoral economy, the increased participation of farmers and pastoralists at cattle markets has to a large extent been facilitated by the multiplication of markets. In turn, the increase in the number of markets has led to the diversification of possible transactions. Maps 5.3 and 5.4 show the pattern of current trade flows between markets within the local exchange circuits of Guéné and Karimama on the one hand, and Goumori and Founougo on the other.

Map 5.3  
Trade between markets at the local level: Karimama/Guéné circuit
The patterns shown in Map 5.3 reveal the multiplicity of flows. Apart from the cattle which directly leave the area for regional or international destinations, there are substantial flows between Karimama and Guéné on the one hand, and the Nigerian markets of Kamba, Gountchi and Lollo on the other. These are large cattle markets visited by traders who trade with Ibadan and Lagos. Furthermore, an important number of cattle (16 per cent of the local flow) are conveyed to the Malanville butchery from the Guéné and Karimama markets. Finally, a regular weekly flow of cattle exists between the Karimama and Guéné markets, in both directions. In addition to this main stream, some smaller, irregular and sometimes seasonally determined flows exist between a variety of small and large markets. Thus, the small collection points of Monsey and Kompa in Benin, and Boumba and Sia in Niger supply the Karimama market. Similar flows occur between Malanville and Guéné, between Malanville and Gaya as well as between Lollo and Guéné. These concern small traders who trek limited numbers of cattle from one market to the other.

The dry-season supply of supplementary fed bulls from Niger to the Karimama market was mentioned earlier. In addition to this, a significant number of cattle are traded from Karimama (back) to Niger (some 8 per cent of all cattle with a local destination). More than 80 per cent of this flow are bullocks and heifers, purchased by nearby farmers and pastoralists respectively. Thus, in view of the absence of similarly sized cattle markets on the Niger side of the border, potential buyers aim at the Karimama market which occupies a correspondingly crucial position in the local cross-border economy. At the Karimama market, transactions involving both buyer and seller from Niger are no exception.

In the local exchange circuit around Goumori and Founougo, the market density is lower and so are the possibilities of capitalising on cross-border price differentials. The pattern of trade flows shown in Map 5.4 is therefore less complex. Moreover, the trade flows have a
strong seasonal character, i.e. they are more intense during the dry season when prices are attractive and many pastoralists have established their transhumance camps near the Alibori market. On the contrary, the trade between formal and informal markets (villages of farmers and pastoralists) is intense throughout the year.

The regional level

The detailed patterns of regional cattle trade for the north of Benin are shown in Map 5.5 and Table 5.6 indicates that trade at the regional level concerns significant numbers of cattle. Some explanation is needed to understand the nature of some of these regional flows.

Map 5.5 Trade at the regional level in northern Benin

Parakou is a major final destination market for meat animals (the butchery purpose). In absolute numbers, Parakou even outweighs Cotonou when yearly slaughtered cattle are considered (cf. Section 5.5). Several Parakou-based butchers and traders actively visit cattle markets on the Parakou - Karimama axis and often collaborate when it comes to transport, by hiring a truck together. They prefer the larger Karimama and Guéné markets because they assure an adequate supply to return to Parakou the very same day. From Goumori and Founougo, it is the local traders who convey cattle to Parakou. With respect to these markets, the percentages for cattle with Parakou as their final destination (3 per cent and 5 per cent; cf. Table 5.6) probably underestimate the real figures. This is related to the
observation that many traders operating on the Goumori and Founougo markets often hesitate when asked about the final destination of their cattle. In fact, they frequently do not know. For instance, the high percentage for Kolokondé (58 per cent) is explained by the fact that many traders start their itinerary by first attempting to sell at this market. If conditions are unfavourable, they will continue to Parakou. Upon arrival in Parakou, they wait for some days and eventually continue to the Saki market in Nigeria. Moreover, those traders who declared Nigeria as their destination might well make a stopover in Parakou in order to sell some animals. In contrast to the traders from Guéné and Karimama who commonly use truck transport between Kamba (just over the border at Malanville) and Ibadan/Lagos, the Goumori or Founougo based traders trek their cattle on the hoof in the direction of the Saki market, eventually passing through Kolokondé or Parakou, which explains their strategy of several subsequent attempts to sell.

Table 5.6 further showed that the exchange circuit situated to the south of Kandi, around the Gogounou market, receives 13 per cent and 5 per cent respectively of cattle originating at the Guéné and Karimama markets. The nature of these transactions has already been touched upon. On the one hand, they concern purchases of draught animals by southern Borgou farmers who are attracted by the large supply as well as the qualities of the zebu breed. On the other hand, the transactions are of so-called géniteurs of specific breeds, traded southwards in order to be exchanged in southern Borgou pastoralist villages.

Concluding remarks on the local and regional trade

Although it was not the intention of this chapter to provide a detailed economic analysis of the market performance, the findings presented over the preceding sections justify a few concluding remarks about the arbitrage activities of traders who operate at the local and regional levels of trade in northern Benin.

It is commonly acknowledged that in a properly functioning market system, price formation at spatially separated markets is influenced by the arbitrage activities of traders. Arbitrage is possible when transaction costs are smaller than price differences between products at two separate markets. Accordingly, price differentials will ideally decrease as a result of arbitrage to a level at which they reflect transaction costs and allow for a 'normal' (not excessive) profit margin (Lutz 1994, 24-25). How can we characterise the arbitrage activities of traders in northern Benin?

First of all, the nature of the data presented in the section on cattle prices already suggested that it is somewhat hazardous to compare the Goumori and Founougo markets on the one hand with the Guéné and Karimama markets on the other, principally because the price survey was based on two distinct breeds of cattle. Thus, a comparison of absolute price levels could mistakenly lead us to draw conclusions about the level of arbitrage and market integration. However, even though it is too complex to compare absolute price levels, the analysis of trade flows equally tells us something about the integration of both market clusters. In this respect, it can be inferred from Table 5.6 that few movements of cattle occurred between the two market clusters. This could be interpreted as an indication for the absence of sufficient price differences to incite arbitrage activities. This is substantiated when the composition of the flow is taken into account. In fact, the 1 per cent of all cattle transactions on the Guéné and Karimama markets which are traded towards the Founougo/Goumori area are basically composed of reproductive bulls and heifers destined
for pastoralists. The special character of this trade flow is reflected in the substantial profit on the one hand, and the high knowledge barrier which limits the number of traders involved on the other (cf. Section 8.3).  

A second remark relates to the observation that arbitrage activity is very dynamic within each of the so-called exchange circuits. The data presented in Table 5.5 shows that 31 per cent of all surveyed transactions at the four cattle markets had a local destination. In turn, of all these local transactions, 29 per cent were identified as trade, i.e. purchases with the purpose of resale. Some of these transactions consisted of trade between formal cattle markets (cf. Maps 5.3 and 5.4). However, it was further explained that traders not only capitalise on price differences between formal markets but on price differences between market days, between market hours and between informal and formal markets as well. All these represent the range of arbitrage opportunities available to them. From the preceding sections it stands out that the price differentials cannot always be attributed to transaction costs. On the contrary, a major contributing factor is the imperfect nature of information such as ignorance of prevailing price levels and a lack of negotiating experience among certain actors, notably farmers and pastoralists. Furthermore, it appears that the sheer number of people present on a market day, the practices of *dillali* and the absence of price standardisation contribute to a certain degree of non-transparency as well. In fact, as a result of the variety of price determining factors that were identified in Section 5.2, the existence of price differentials may not come as a surprise.

Notwithstanding these observations, it was equally noted that arbitrage activities and market efficiency have both substantially improved in historical retrospective. Over the last 15 to 20 years, the emergence of new formal cattle markets has significantly contributed to this. The cattle traders themselves have unanimously claimed that profit margins as well as price differentials have declined over the above-mentioned time interval, but also over a much longer period (cf. Section 5.5 on long-distance trade). This phenomenon can partly be attributed to the increase in arbitrage activities brought about by the emergence of formal markets which improved the diffusion of price information and increased the transparency of market functioning. Even though traders claimed to be making 'excess profits' in the initial stages following the creation of a new cattle market, by carrying transactions between pastoral villages and the new market, similar profit-making opportunities have gradually been reduced over the years and nowadays the group of traders who aim to capitalise on the still existing differentials has a specific composition. This will be elaborated on in Section 8.2.

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17 Lutz (1994) has rightly noticed that '.. spatial arbitrage between markets of agricultural products may seem to be a simple activity, but several characteristics of agricultural marketing (seasonality, atomistic supply and demand) and country-specific aspects (lack of infrastructure, imperfect markets) may hamper the process of arbitrage and make it a rather risky and complex activity .' (1994, 25). In this respect, it will be demonstrated in Section 8.3 that certain arbitrage activities are not accessible for all actors and are characterised by 'ethnicity and skill based entry barriers'.

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5.5 Trade flows of cattle: the long-distance trade

The present section investigates the long-distance trade which represents the flows of cattle between markets in northern Benin and the national and international destinations on the West African coast. At the national level, this comes down to examining the history of cattle flows towards the slaughterhouse in Cotonou. With respect to the international level, an historical account will be given of cattle exports to Benin's neighbours Nigeria and Togo. Apart from this, we will highlight some relevant contextual factors such as the import of frozen meat and the economic crisis of the 1980s, which resulted in shifts in the volume, orientation and relative size of trade flows towards the respective coastal markets. The final paragraphs will be dedicated to the actual composition of the patterns of long-distance trade as they were registered in the survey.

National destinations

In Benin's interior, the urban agglomerations of Parakou and Cotonou/Porto-Novo have traditionally been the major consumption centres to which the national trade of meat animals has been directed. Cotonou and Porto-Novo have long dominated in terms of numbers of animals slaughtered. However, since roughly the 1980s this pattern was reversed when the Borgou region and the town of Parakou in particular significantly increased their market share.

From the 1950s onwards, demand for cattle in Benin expanded gradually. The official number of animals slaughtered increased from around 10,000 in 1954, to 15,500 in 1960, 26,700 in 1970 and 36,320 in 1980 (Brémaud 1967; Josserand & Sullivan 1979; CEBV et al. 1992). As was outlined in Chapter 3, an important part of the supply of Benin's slaughterhouses was provided for by imports from Niger and Mali and to a smaller extent Burkina Faso, notably during the 1950s and 1960s. The 1970s revealed a tendency towards an increasing share of national production in the total number of animals slaughtered. Direct imports of cattle from Sahelian countries gradually diminished as a result of competition from the Nigerian market and notably after the first major drought period of 1973-1974 which caused the arrival of substantial numbers of herds in Benin. In addition, the policy of the Kerekou regime, installed in 1972, focused on self-sufficiency, and cattle imports and exports were officially prohibited (Bellot 1983).

The Borgou region soon became the main supplier of meat animals to urban agglomerations. The growth of its cattle herd coupled with an increased use of animal traction undeniably contributed to this. It was to the pastoral region around Karimama and Malanville, in the northern Borgou, that most traders from the north as well as from Cotonou, bought their cattle. By the end of the 1970s the cattle market in Cotonou had developed rapidly which is reflected in the high number of cattle slaughters during the

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18 Imports from Niger peaked between 1958 and 1962 averaging 12,000-18,000 animals/year (Brémaud 1967). It is assumed that a large number of these imports consisted of cattle in transit to Nigeria or Togo (Hetzel 1974, 209).

19 Following a figure of 17,600 animals imported at the height of the drought period, imports drastically slowed down (Josserand 1979). From then on, it was the Guéné and Karimama markets which attracted cattle from the Niger border region. Accordingly, these 'imported' cattle were either transported to Cotonou or to a foreign destination.
early 1980s (cf. Graph 5.23) and in the opening of a large modern abattoir with an adjoining well-equipped cattle market in 1979. Several traders have claimed that during this period their business flourished. In fact, slaughter figures for Cotonou would never again achieve the levels of the early 1980s. In addition to demographic growth, the flourishing economic circumstances in Nigeria encouraged demand in Cotonou.

In Cotonou, however, the situation became increasingly gloomy from around 1983/1984 onwards. Due to the economic crisis, problems between cattle traders and butchers at the cattle market reached their height in 1984, and several butchers went bankrupt. The conflict was principally related to delays caused by butchers in repaying their outstanding debts (cf. Section 7.2). In turn, these financial difficulties were partly due to the decline in retail prices following the general economic recession. Notwithstanding this, several studies suggested that the problems were also caused by a lack of organisation among cattle traders and the 'excessive' margins still pursued by butchers (République du Bénin 1989; Tyc 1988). Several cattle traders have mentioned the period between 1983 and 1986 as extremely difficult in terms of debt default among butchers. They indicated that the role of landlord-middlemen in debt recovery started to deteriorate. Illustrative of the crisis during the 1980s is the remark made by Tyc (1988) who estimated that the 1988 level of cattle prices was about 30 per cent lower than the 1982/1983 level. This decrease was attributed to the economic crisis which hit Benin as well as Nigeria. However, the cattle trade crisis hit Cotonou particularly because in other parts of the country 's'il y a baisse indéniable des prix, il n’y a pas pour autant mévente ' (even when prices are undeniably lower, sales are not) (Tyc 1988, 27). The situation is reflected in the number of cattle slaughtered in Parakou which came to outweigh those slaughtered in Cotonou with respect to the period in question (cf. Graph 5.23). It should be noted here that per capita meat consumption has always been consistently higher in Parakou. In general, the consumption

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20 A comparable decline in the retail price of beef was observed at the Lagos market (République du Bénin 1989; Cook 1991).
of meat is higher among the populations of the north where a large number of Moslems live. In southern towns such as Cotonou and Porto-Novo the consumption of fish typically exceeds the consumption of meat (beef, mutton and goat meat in particular). Meat is not only more expensive but the eating habits of the population have traditionally been oriented towards fish. In fact, beef and mutton only became part of the diet of non-elite consumers after the beginning of the century. Nowadays, the estimated annual per capita consumption of protein-containing products in Cotonou and Porto-Novo is 10.2 kg of fish and 7.5 kg of meat, of which 3.5 kg is beef (SOLAGRAL 1993; CEBV et al. 1992, 10). For Parakou, we estimate the per capita beef consumption alone to be approximately double that of Cotonou, i.e. 7 kg. This calculation is based on population figures provided in Lejeal (1998) and slaughter figures in République du Bénin/MDR/DE (various years).

In addition to the deteriorating economic circumstances which were reflected in a purchasing power crisis, the drop in the number of cattle slaughtered in Cotonou has also been attributed to imports of cheap frozen beef.

Imports of frozen beef

An additional factor that has been put forward to explain the deterioration in the national cattle trade during the 1980s is competition from imported beef. Until 1976, Benin had not imported significant quantities of bovine meat (Josserand & Sullivan 1976, 6). The till then negligible imports of frozen beef from Niger and Burkina Faso had ceased completely around 1970. Like several other West African countries, Benin started to import frozen beef from Latin American suppliers (Argentina and Uruguay in particular) by the end of the 1970s. These imports, which remained small, were arranged by the national marketing board (SODERA) as part of its policy to organise a regular meat supply to southern Benin. From the 1980s onwards, imports of frozen poultry and beef increased significantly. The European Union, which started to subsidise its meat exports, became the main supplier and soon accounted for more than 90 per cent of all imports (Sarniguet 1992, 33). The imported beef consisted mainly of so-called CAPAs (derived from the French term caparaçons) which are low quality meat cuts. As a result of subsidies, the CIF price in a West African harbour largely underscored the prices of local beef. Graph 5.24 summarises the fluctuations of frozen beef exports from the European Union to Benin. Export figures from the European Union are provided since they appear more reliable than import figures in Benin.

Graph 5.24 Exports of frozen beef from the European Union to Benin (1980 - 1996)
In addition to its comparatively low CIF price, European beef was able to increase its market share because of limited restrictions on imports. The subsidies granted by the European Union lowered prices for export beef to such an extent that transport costs had become the main cost factor determining the sales price in West Africa. Moreover, among other imported items, beef was able to take advantage of the favourable import tariff and regulation policy (Sarniguet 1992). In fact, since 1973, the general policy of the authorities in Benin towards imports has consisted of 'importer plus que la capacité de consommation, dans l’espoir de vendre le surplus hors des frontières nationales...' (import more than consumption capacity, in the hope of selling the surplus across national boundaries), notably in Nigeria (Igué & Soulé 1992, 53). This policy of re-exportation has resulted in a prospering and fraudulent trade flow to Nigeria because many of the products imported into Benin under favourable conditions suffered from import restrictions in Nigeria which aimed to protect its national production and industries. European beef became part of this re-exportation flow and an estimated 50 per cent of the beef imported into Benin found its way to Nigerian consumer markets. In fact, the level of Benin’s beef imports follows the fluctuation of Nigeria’s beef imports in a reversed pattern. As a result of a restrictive import policy, Nigerian beef imports dropped sharply from 1984 onwards and the resultant rise in beef imports into Benin is reflected in Graph 5.24.

A similar pattern occurred when Togo banned all meat imports between 1990 and 1992. The (fraudulent) re-exportation of beef from Benin to Togo was estimated at around 1,000 tons in 1991 (Sarniguet 1992). The graph further shows a peak in imports for 1992 and 1993. These peaks coincide with the complete ban on all meat imports into Nigeria. However, similar to a pattern observed all over West Africa, beef imports dropped sharply after the CFA franc devaluation in 1994 caused a de facto doubling of import prices. Towards the end of 1993, the European Union started to introduce reductions on its meat subsidies, in response to NGO pressure. Both factors contributed to a significant decline in beef imports throughout coastal West Africa (Van Helden & Quarles van Ufford 1994). On top of this, the authorities in Benin decreed a complete embargo on all beef imports from Europe following the outbreak of 'mad cow disease' in 1996. This virtually stopped all official beef imports from 1997 onwards.

Having investigated the fluctuations in frozen beef imports, its impact on the local cattle trade can be assessed. Numerous reports have been written on the allegedly destructive impact of subsidised beef imports on the West African trade in cattle and meat (Novib 1993; Josserand 1990). In Benin, a complicated picture emerges. First of all, it is extremely difficult to trace the beef imports ultimately sold in Cotonou. The phenomenon of re-exportation is estimated to account for at least 50 per cent of all meat imports ending up across the Nigerian border. This somewhat obscures the situation. However, the impact

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\[21\] The re-exportation of frozen poultry (chicken wings and thighs in particular) is even greater, since their import into Nigeria has been prohibited since the end of the 1980s. Subsequently, imports of poultry in Benin went from 1,000 tons in 1990 to 14,000 tons in 1993 before stabilising at around 12,000 tons in 1996 (Verot 1994; DGViH 1998). Most finds its way into Nigeria.

\[22\] Small quantities of beef were still imported illegally. However, consumers generally refrained from purchasing imported frozen beef since they knew about mad cow disease.

\[23\] Negligible amounts of frozen beef are sold in other towns in Benin. This is due to the lack of sufficiently equipped refrigerated transport as well as to the low prices of local beef in the interior.
could be assessed through a comparison of the fluctuations in the number of cattle slaughtered and the volume of imports (cf. Graphs 5.23 and 5.24). In doing so, it appears that the fluctuations are to some extent comparable while a contradictory pattern would be expected. This observation rejects the 'severe impact' hypothesis. In fact, a large-scale substitution effect between imported and local beef has not taken place. The explanation for this phenomenon is found in consumer behaviour. The results of a beef consumption study carried out in Accra and in Abidjan (Van Helden & Quarles van Ufford 1994) demonstrated that the appearance of low quality cheap beef resulted in the creation of a separate market which supplied beef to low income urban consumers.24 Up till then the purchase of fresh beef had been financially beyond the reach of the majority of consumers who made up this sector of the urban population. The middle income and high income groups continued to purchase the higher quality fresh beef and substitution only occurred to a relatively small extent. It is very likely that a similar situation occurred in Cotonou because the sharp drop in beef imports from 1994 onwards has not been accompanied by a substitution effect which would have been reflected in an increased slaughter of local cattle. Low income groups appear to have reduced their beef consumption and resorted to other sources of protein such as fish.

International destinations

The geographical position and the size and shape of Benin have put the country under the economic influence of its neighbours in general and Nigeria in particular for a long time. During the colonial era, exports of cattle to Nigeria and Togo were so high that the authorities were concerned about a sufficient supply of cattle to southern Dahomey. On the other hand, part of the demand in southern Dahomey was long satisfied by cattle imports from Niger and, to a lesser extent, from Burkina Faso and Mali.

Although a reconstruction of the fluctuations in international trade patterns can be achieved using information provided by cattle traders and key informants as well as additional literature sources, a quantitative historical account of trade flows is extremely difficult to provide. The principal reason for this is the fact that most cattle exports and imports consist of fraudulent border crossings. The suspicion of (cattle) traders towards the customs authorities is widely acknowledged. Therefore, most cattle cross the border on the hoof following bush itineraries away from towns and villages in order to evade customs officials. If they are encountered, an attempt will be made to 'arrange' the border crossing. Today, Benin's official export and import taxes for cattle are 20 per cent and 9-11 per cent respectively of the sales value of the live animal (CEBV 1994b; Coste, Ancey & Egg 1993). All of the traders and most of the custom officials are unaware of the level of these taxes. Following historical practice, traders continue to smuggle their cattle across borders and custom officials continue their attempts to extort money from them. As a result, import and export statistics of cattle are either non-existent or unreliable. A further complicating factor with respect to the reliability of statistics is the difficulty of distinguishing between imports and cattle in transit. Whereas cattle coming from Burkina Faso might well be destined for Nigerian markets, cattle from Niger often continue as far as Togo. Finally, a long tradition of cross-border transhumance brings numerous cattle herds from Niger and

24 In-Cotonou, the 'separation' of the two markets is also reflected in the observation that the fresh beef sector is male-dominated and the frozen beef sector female-dominated, with both actors occupying separate stalls at the market place.
Nigeria into Benin each year. From these herds, some animals will undoubtedly be taken off and sold at Benin cattle markets. It will then depend on the final destination of these animals as to whether they should have been considered as imported or transiting cattle. The following two paragraphs will deal with the two major traditional export destinations for cattle from Benin: Nigeria and Togo.

Nigeria

The export of cattle to Nigeria dates from the early part of this century. The large urban agglomerations of southern Nigeria and the increasing purchase power of the export crop economy's population stimulated demand and attracted cattle from northern Benin. However, from the 1970s onwards, exports were determined by two interrelated factors: the oil boom and fluctuations in Nigeria's currency, the Naira.

When asked about the attractiveness of exporting cattle to Nigeria, cattle traders tend to mention two factors outside the domain of profits on sales. First of all, most cattle at the markets of Ibadan, Saki and Lagos are sold rapidly and traders are paid cash by the butchers. The historically rooted phenomenon of cash purchases is a crucial feature of the functioning of southern Nigerian destination markets and distinctive from the practice at almost all other West African coastal cattle markets such as Cotonou and Lomé where credit purchases prevail. Secondly, another attractive feature of exporting cattle to Nigeria is the possibility of purchasing return merchandise for sale in Benin. Industrialisation in Nigeria has developed to a stage where the scale of production and low production costs facilitate the export of manufactured products all over the West and Central African region (Bach et al. 1988). Consumers in Nigeria's neighbouring countries usually prefer to buy manufactured products of Nigerian origin because they are cheaper than items manufactured by Western companies. Return merchandise can equally consist of products imported into Nigeria from Asian economies such as China, South Korea or Indonesia. In addition to these two factors which encourage a regular flow of cattle, the volume of cattle exports to Nigeria has been determined by oil revenues and currency fluctuations.

Conditions on the world oil-market at the end of the 1960s, during the early 1970s and in the early 1980s pushed Nigeria's oil revenues to unprecedented heights. General economic conditions improved and demand for meat increased among urban consumers in particular. Successive Nigerian governments benefited from the oil boom and significantly increased public expenditure in what qualified as a 'consumption economy' (ibid., 9). The stimulation of demand in turn provoked a substantial rise in cattle imports, not only from Benin but also from other West African countries such as Niger, Chad and Burkina Faso. During these periods, the Naira was a strong currency and its parallel market exchange rate to the CFA franc particularly favourable. In fact, the parallel market has constituted the only means for traders to convert their Naira into CFA francs since 1968 when Nigeria left the 'sterling zone' and the banks of neighbouring countries refused to accept the Naira (Igué 1998, 225). Graph 5.25 shows the exchange rate between the Naira and the CFA franc over the last 30 years. The figures give insight into the parallel exchange rate which is the most relevant rate for cattle traders who either change money at the cattle market or in the border zone. To a large extent, the fluctuations reflect the ups and downs in cattle exports.

Some traders also mentioned the allegedly non-functional, easy-to-bribe veterinary system. This diminishes the trader's risk of having his animal rejected for slaughter after veterinary inspection. As one trader claimed: 'in Nigeria, they even slaughter dead cows!' In the early 1970s, the Nigerian government decided to double civil servants' pay (Cook 1991).
from Benin to Nigeria (Igué 1988, 223). According to the traders themselves, the period between 1979 and 1982 was by far the most beneficial. This interval corresponded to the initial part of the mandate of the first elected Nigerian president, Shagari, and traders commonly refer to it as the 'Shagari era'. The combination of attractive cattle prices and the availability of return merchandise enabled several cattle traders from Benin to make their fortunes at that time. However, the world oil price collapsed in 1981 and from 1982 the impact became noticeable nationally with an according decrease in consumer demand. The situation was further aggravated for the cattle traders from Benin when President Buhari, following a coup d'état, took over power on 31st December 1983. According to the instructions of the International Monetary Fund, he introduced strict monetary measures and the Naira rapidly devalued (cf. Graph 5.25). Furthermore, Buhari prohibited the import of cattle as well as the circulation of CFA francs in Nigeria. Between 1984 and 1986, so-called 'border zones' were created which aimed to reduce fraudulent cross-border trade, in particular the export of petrol to Benin. On top of this, the president introduced new Naira bills. Many of the traders from Benin who carried substantial amounts of Naira, experienced considerable financial losses because the old Naira bills could be exchanged only at official banks, for a period of no more than 10 days following the decision. Moreover, the traders had to rely upon the 'services' of Nigerian middlemen because foreigners could not exchange the bills themselves. Some were not informed in time and others were cheated by these middlemen. Among the cattle traders from Benin, this period became known as 'the Buhari delay' and many saw their trade capacity reduced as a result of the measures.

Graph 5.25 Evolution of the Naira exchange rate (expressed in CFA francs for 100 Naira)

From 1984 onwards, the Naira continued to lose value as a result of the Structural Adjustment Programme implemented during Babangida's presidency. Combined with Nigeria's economic crisis this considerably reduced the attractiveness of the Nigerian market for Benin's cattle traders. However, many traders continued to sell cattle in Ibadan, Saki or Lagos because they felt that although profits were lower, cattle continued to be purchased in cash and their capital thus rotated more quickly. Moreover, the purchase of

Some studies have estimated average unofficial exports to Nigeria at around 20,000 animals/year, for the period following upon the 'Shagari era' (Agriculture Food Consulting 1992; Sarniguet 1992; République du Bénin 1994).
return merchandise which still sold well in Benin constituted an additional incentive which made currency exchange redundant. Although return merchandise consisted of a variety of items, bicycles and motor bikes were most popular. In fact, even today the combination of trade in cattle and trade in (motor) bikes is very popular with traders. In the colonial era traders regularly purchased bicycles from the French and English trading houses in southern Dahomey, Togo and Nigeria. Some of these bicycles were exchanged for Fulani cattle. Although the number and quality of animals received differed for each transaction, the terms of trade of this barter system were especially lucrative from the point of view of cattle traders. For many of them it provided an opportunity to build up their own cattle herd. From the 1970s onwards, the bicycle trade was increasingly complemented by the motor bike trade from Nigeria. These motorbikes were either assembled in Nigeria or imported from China or Taiwan. Again, traders refer to the 'Shagari era' as the period in which this type of trade was most lucrative. In line with increased demand for consumption items among the Fulani of Benin (cf. Section 4.2) the number of new and second-hand motorbikes ('moto Shagari') sold in northern Benin increased significantly during this period. When the economic circumstances in Nigeria deteriorated at the end of the 1980s and in the early 1990s, the importance of the motorbike-cattle barter trade diminished, although it continues to exist today as cattle traders bring motor bikes from Nigeria for rich cotton farmers. However, since the 1980s, the motor bike trade has increasingly been dominated by a group of young, specialised dealers from towns such as Malanville, Kandi and Parakou who are not interested in trading cattle. In addition to bicycles and motor bikes, veterinary products manufactured by Nigerian pharmaceutical industries occasionally figure in the return trade of cattle traders as well.

Finally, the 1994 devaluation of the CFA franc caused a temporary improvement in the currency exchange rate from the point of view of cattle traders in Benin. Following the announcement of the devaluation (on 12th January), traders promptly reacted by exporting more cattle to Nigeria. This even resulted in a scarcity of cattle at the market of Cotonou during early 1994 (CEBV 1994a). However, the upheaval was short lived because a few months later the Naira was again devaluated, reaching its 1993 level by October 1994. Between 1995 and 1996 the exchange rate was not modified substantially.

Togo

During the 1950s and 1960s, the markets of Lomé and Atakpamé were attractive outlets for cattle traders from Benin. This situation changed from the 1970s onwards due to a combination of factors (cf. Hetzel 1974). First of all, the international context changed with the decline of Ghana's economy following years of bad management and excessive spending. As a result, many cattle traders in Burkina Faso sought new outlets one of which was Togo. Together with the increasing attractiveness of Cotonou and specifically the Nigerian markets, the more 'crowded' market in Togo is likely to have persuaded the cattle traders from Benin to divert their trade to these destinations. Besides, exporting cattle to Togo became increasingly difficult after the Marxist-Leninist regime took over power in Benin in 1972. According to one trader, the new slogan said '.. on ne doit pas amener la

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28 With regard to Burkina Faso's exports, the importance of Togo as a destination went up from 2.5 per cent in the 1960s to 6.1 per cent during the 1970s. Traders sought new destinations in response to the declining Ghanaian economy (exports from Burkina Faso to Ghana went down from 49.2 per cent to 11.7 per cent over the same period. In addition to Togo, Côte d'Ivoire became a major destination, increasing from 49.1 per cent to 71.9 per cent respectively (Holtzman & Kulibaba 1992, 17).
Richesse à l'extérieur ..' (resources should not be taken abroad). Although the cattle traders were used to smuggling their herds across the border or to making arrangements with customs officials, border controls became stricter and paramilitary groups as well as village representatives were solicited as border guards. The trade towards Togo declined in importance in the following years.

Indications of recovery occurred from the end of the 1980s onwards, a development which seems closely related to the economic recovery in Ghana which attracted increasing numbers of cattle traders from Burkina Faso who had virtually ignored this destination since the early 1970s. In the wake of this development, cattle traders from Benin reappeared at the Lomé market and the (predominantly unregistered) flows of cattle grew, with the exception of an interval during the early 1990s when trade virtually ceased because of political unrest in Lomé.

It seems that the ever-growing importance of the Lomé market in the 1990s for cattle traders from Benin is again closely related to the situation in the Ghanaian market. Following the CFA franc devaluation, this market suddenly became very attractive to traders from Burkina Faso (Quarles van Ufford & Klaasse Bos 1996). Accordingly, opportunities rose for other traders who took advantage of the favourable situation at the Lomé market. The fact that some cattle traders from Burkina Faso diverted their attention to the markets of Guéné and Karimama, from which they supplied Lomé, can be interpreted as an indication of price levels at cattle markets in Burkina Faso being too high to allow a beneficial sale in Lomé.

**Long-distance trade patterns during the survey period**

The results of the 1996 market survey reveal the routes of long-distance trade patterns.

<table>
<thead>
<tr>
<th></th>
<th>Goumori (n=680)</th>
<th>Founougo (n=670)</th>
<th>Guéné (n=450)</th>
<th>Karimama (n=450)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goumori</td>
<td>13%</td>
<td>31%</td>
<td>42%</td>
<td>44%</td>
</tr>
<tr>
<td>Founougo</td>
<td>62%</td>
<td>22%</td>
<td>30%</td>
<td>19%</td>
</tr>
<tr>
<td>Guéné</td>
<td>9%</td>
<td>13%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Karimama</td>
<td>14%</td>
<td>34%</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Togo</td>
<td>2%</td>
<td>-</td>
<td>20%</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Regional level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goumori</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Own survey

First of all, it appears that the long-distance trade destinations, whether they are inside or outside the country, are less important than the combined local and regional levels of trade. Nevertheless, it was already emphasised that the numbers involved in the regional trade should be interpreted with caution as they are likely to be somewhat overestimated.

Secondly, export destinations outweigh the Cotonou market in importance. The urban agglomeration of Cotonou and Porto-Novo consumes relatively little meat. For instance, Lomé is of comparable size but the number of animals slaughtered there is almost
double that in Cotonou (Bulletin Marchés bétail-viande, 1996). Furthermore, it appears that in spite of the continuous devaluation of the Naira, cattle markets in Nigeria have remained attractive destinations for traders from Benin. Another conclusion relates to the resumption of cattle exports to Togo and the city of Lomé in particular. The major reasons for this development have been outlined and the increasingly favourable economic circumstances in Lomé seem to have only enhanced this trade flow. The cattle markets of Guéné and Karimama have become more and more popular as purchase markets for Lomé-based cattle traders. This brings us to the third remark, which concerns the observation that exports to Lomé are largely confined to the markets of Guéné and Karimama. At the same time, cattle brought to Cotonou predominantly originate from the Goumori and Founougo markets. From both market clusters cattle find their way to Nigerian destinations, even though the percentages are somewhat higher for the Goumori and Founougo cluster. This raises the question about which factors explain this distinction in the direction of trade flows. Why are Cotonou and Lomé 'served' from two separate market clusters? Throughout consecutive sections and chapters an attempt will be made to solve this puzzle. In Section 5.6, for instance, the phenomenon will be assessed through an analysis of marketing costs.

5.6 Marketing costs and the profitability of long-distance trade

According to a recent report on the cattle and meat trade in Benin, "... la filière bétail-viande est un secteur traditionnel fonctionnant selon des règles largement indépendant de l’économie de marché..." (République du Bénin 1994a, 29). Similar views about the alleged inefficiency of the cattle trade and the mode of operation of cattle traders have often been expressed. On the other hand, an opposite stance was taken by authors such as Josserand & Sullivan (1979) or Cook (1991) who emphasised the 'efficient' character of the cattle trade. In the light of such remarks, this section examines some selected performance parameters for the marketing of cattle. Specific reference will be made to the marketing costs of long-distance trade to coastal markets and to the profitability of this type of trade. The fieldwork results are compared to the findings of other studies on cattle trade itineraries across West Africa. The focus on long-distance trade implies that a similar analysis of local and regional trade remains outside the scope of this chapter. For these levels of trade, marketing expenses are generally low and mainly entail the cost of trekking cattle. Furthermore, the costs of trekking cattle are typically not externalised but taken care of by the owner himself or by a relative. In short, the profitability of trade at the local level is predominantly a function of the differential between purchase and sale prices. Although this factor is equally crucial for the long-distance trade, marketing costs not only have more weight but also provide insight into the nature of long-distance trade as well, given the variety of cost elements involved. In this respect, the modes of transport utilised by traders stand out as a crucial factor. Finally, the marketing costs and profitability of trade are the result of and have consequences for the mode of organisation of and decisions made by individuals and groups of cattle traders.

The present section focuses on Tables 5.9 and 5.10. Table 5.9 presents an overview of marketing costs and selected financial parameters for six relevant itineraries within the

---

29 "... the marketing channel for cattle and meat is a traditional sector which functions according to rules largely independent of the market economy..."
study area, and is based on fieldwork results. At an aggregate level, Table 5.10 shows similar findings for other trade itineraries throughout West Africa, based on secondary data.

Table 5.9 Marketing costs, purchase and sale prices and profitability (per animal) on six itineraries (1996): figures in CFA francs based on a transport of 30 animals

<table>
<thead>
<tr>
<th>cost category</th>
<th>amount</th>
<th>A</th>
<th>B</th>
<th>amount</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Goumori/Founougo - Cotonou</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>truck over 722 km</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>purchase of the animal</td>
<td>107,000</td>
<td>89%</td>
<td></td>
<td>140,000</td>
<td>92%</td>
<td></td>
</tr>
<tr>
<td>commission to dillali or market committee</td>
<td>200</td>
<td>2%</td>
<td></td>
<td>500</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>purchase costs</td>
<td>700</td>
<td>5%</td>
<td></td>
<td>800</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>truck hire</td>
<td>8,200</td>
<td>63%</td>
<td></td>
<td>6,500</td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td>cattle drovers</td>
<td>1,500</td>
<td>11%</td>
<td></td>
<td>1,500</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>(un)official taxes</td>
<td>500</td>
<td>4%</td>
<td></td>
<td>500</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>costs related to the sale</td>
<td>1,500</td>
<td>11%</td>
<td></td>
<td>1,500</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>costs of return trip trader</td>
<td>500</td>
<td>4%</td>
<td></td>
<td>500</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>sale of animal</td>
<td>130,000</td>
<td></td>
<td></td>
<td>165,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>total costs</td>
<td>120,100</td>
<td></td>
<td></td>
<td>151,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>marketing costs</td>
<td>13,100</td>
<td>11%</td>
<td></td>
<td>11,800</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>gross profit</td>
<td>23,000</td>
<td>19%</td>
<td></td>
<td>25,000</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>net profit</td>
<td>9,900</td>
<td>8%</td>
<td></td>
<td>13,200</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>marketing costs/km</td>
<td>18</td>
<td></td>
<td></td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Guéné/Karimama - Cotonou</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>truck over 700-740 km</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Goumori/Founougo - Lomé</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>trekking over approximately 337 km</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>truck over 339 km</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>purchase of the animal</td>
<td>120,000</td>
<td>93%</td>
<td></td>
<td>150,000</td>
<td>92%</td>
<td></td>
</tr>
<tr>
<td>commission to dillali or market committee</td>
<td>200</td>
<td>2%</td>
<td></td>
<td>500</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>purchase costs</td>
<td>700</td>
<td>7%</td>
<td></td>
<td>800</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>truck hire</td>
<td>3,000</td>
<td>31%</td>
<td></td>
<td>5,250</td>
<td>42%</td>
<td></td>
</tr>
<tr>
<td>cattle drovers</td>
<td>3,000</td>
<td>31%</td>
<td></td>
<td>3,750</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>(un)official taxes</td>
<td>1,000</td>
<td>10%</td>
<td></td>
<td>350</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>costs related to the sale</td>
<td>1,000</td>
<td>10%</td>
<td></td>
<td>1,000</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>costs of return trip trader</td>
<td>750</td>
<td>8%</td>
<td></td>
<td>750</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>sale of animal</td>
<td>145,000</td>
<td></td>
<td></td>
<td>180,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>total costs</td>
<td>129,650</td>
<td></td>
<td></td>
<td>162,400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>marketing costs</td>
<td>9,650</td>
<td>7%</td>
<td></td>
<td>12,400</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>gross profit</td>
<td>25,000</td>
<td>19%</td>
<td></td>
<td>30,000</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>net profit</td>
<td>15,350</td>
<td>12%</td>
<td></td>
<td>16,600</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>marketing costs/km</td>
<td>14</td>
<td></td>
<td></td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

159
### Table 5.9 continued -

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Amount</th>
<th>A</th>
<th>B</th>
<th>Amount</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase of the animal</td>
<td>60,000</td>
<td>93%</td>
<td></td>
<td>110,000</td>
<td>91%</td>
<td></td>
</tr>
<tr>
<td>Commission to dillali or market committee</td>
<td>200</td>
<td>4%</td>
<td></td>
<td>500</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Purchase costs</td>
<td>700</td>
<td>16%</td>
<td></td>
<td>800</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Truck hire</td>
<td>-</td>
<td></td>
<td></td>
<td>5,500</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>Cattle drovers</td>
<td>2,500</td>
<td>56%</td>
<td></td>
<td>2,500</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>(Un)official taxes</td>
<td>100</td>
<td>2%</td>
<td></td>
<td>500</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Costs related to the sale</td>
<td>500</td>
<td>11%</td>
<td></td>
<td>500</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Costs of return trip trader</td>
<td>500</td>
<td>11%</td>
<td></td>
<td>400</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Total costs</td>
<td>64,500</td>
<td></td>
<td></td>
<td>120,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing costs</td>
<td>4,500</td>
<td>7%</td>
<td></td>
<td>10,700</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Gross profit</td>
<td>10,000</td>
<td>16%</td>
<td></td>
<td>15,000</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Net profit</td>
<td>5,500</td>
<td>8%</td>
<td></td>
<td>4,300</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Marketing costs/km</td>
<td>11</td>
<td></td>
<td></td>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A: Cost category as a percentage of total costs  
B: Cost category as a percentage of marketing costs

Some of the costs have been converted from Naira into CFA francs using the 1996 exchange rate of: 200 Naira (ldjika) = 1,250 CFA francs

**Source:** fieldwork

The general denominator 'marketing costs for cattle trade' conceals a variety of cost categories. When the purchase price of the animal is considered as a separate cost item, three categories can be distinguished: the costs associated with the purchase of animals, excluding the purchase itself; the costs related to the transport of animals; and the costs related to the sale of animals.

**Costs related to the purchase and sale of cattle**

For all itineraries shown in Table 5.9, the costs incurred at the purchase stage represent only a fraction of the total costs (less than 1 per cent) and a comparatively low percentage of the marketing costs as well (11 per cent on average). In addition to the commission paid to the dillali or to the market committee, costs averaging 700-800 CFA francs per head of cattle are incurred when a trader purchases one or more animals. The latter include the payment of a movement permit, ropes, the costs of visiting markets (and other purchase points of cattle) by motor bike or taxi, the payment of occasional cattle drovers while assembling the herd, and tips for various services rendered. These costs display little variation between the various markets. Moreover, they only rarely reach 1,000 francs per animal. In recent decades, the increase in the number of cattle markets in northern Benin...
has led to a reduction in the costs associated with the procurement of animals. The majority of transactions are now concluded at the market and from the point of view of traders this decreases the necessity of multiple journeys to cattle camps by (motor)bike. Besides, the number of days required for the collection of a herd has also declined. Although reductions in marketing costs have unquestionably been achieved, the gains are difficult to quantify, all the so more because the purchase price of cattle may be higher at the market than in the village of a pastoralist or farmer. Notwithstanding this, the big traders who are engaged in the long-distance trade towards the coast tend to purchase their animals at the market (cf. Section 8.2).

The amount of commission (lada) differs according to the market and is therefore mentioned separately. At the traditional cattle markets of Guéné and Karimama, a dillali receives 500 CFA francs from both the buyer and the seller. Officially, this amount (1,000 francs) includes a municipality tax (250 francs) and a market tax (250 francs) which the dillali should pay to the authorities. For each transaction in Goumori and Founougo, the buyer and seller both contribute 200 CFA francs to the market committee, instead of to an individual dillali. Nevertheless, even though the sum paid as commission is of minor importance when compared to the total costs or to the marketing costs, the intervention of a dillali was found to have a potentially significant impact on the purchase price (cf. Section 5.2). This is the case at markets where dillali function as brokers between seller and buyer, i.e. at the Guéné and Karimama markets for instance. It is difficult, though, to quantify the price differential and assess the extent to which a trader can improve his beneficial margin through this practice. It does give a first indication, however, of how social relations and the mode of market organisation influence financial parameters.

The costs related to the sale of an animal at the destination market typically include a market tax, the costs of living for a trader during his stay as well as additional amounts for unloading the animals and for guarding, pasturing and watering them during the period before the sale. For instance, the authorities at the market in Cotonou levy a 1,000 CFA franc tax per animal upon the trader’s arrival. At other markets, this tax either does not exist (at Nigerian markets) or is lower (in Togo). The subsistence costs for a trader during his stay are traditionally taken care of by his landlord-middleman who provides food, accommodation and assistance with eventual problems. On the trader’s departure, he is typically given a small gift. However, depending on the length of his stay and his relationship with the landlord, a trader will incur additional living costs. Thus, subsistence costs are higher at those markets where cattle are sold on credit, i.e. in Cotonou and Lomé. Here, it can take more than 30 days before a butcher pays his debts. Since cattle are purchased in cash at Nigerian markets, traders usually finish their business within a few days, thereby reducing their subsistence costs. With the absence of market taxes, this has made the level of costs related to the sale of an animal somewhat lower at Nigerian markets: 8 per cent of the total marketing costs on average (cf. Table 5.9e-f) against 11 per cent on average for the other markets (cf. Table 5.9a-d). As a concluding remark, it can be

30 The herding of unsold animals at destination markets is taken care of by the cattle drovers who accompany the transport. These costs are incorporated in the 'cattle drovers' category. When the animal is sold to a butcher (cash or on credit), it becomes the responsibility of the latter to engage a herder.

31 At destination markets, the butchers pay a commission to the landlord-broker. The latter uses part of this money to lodge and feed those traders who use his services.

32 The averages do not include the travel costs of the trader which usually consist of a return trip by taxi. These costs average somewhat more than 5 per cent of total marketing costs.
stated that the costs related to the purchase and the sale of an animal are less significant than the marketing costs associated with the transport of cattle. On average, the costs of transporting cattle make up 70 per cent of all marketing costs for the six itineraries examined in Table 5.9.

Transport (costs) of cattle: To truck or to trek?

Table 5.9 shows that three possibilities exist for the transport of cattle to the destination market: trekking, trucking or using a combination of both. The employment of cattle drovers is a recurrent cost item with all of these possibilities. Whereas cattle drovers are obviously required for trekking cattle herds, they equally accompany the herds transported by truck. Sitting on the trailer, they watch over the cattle to prevent the animals from sitting down or hurting each other.

The following paragraphs will demonstrate that despite the increase in the use of truck transport over the last decades and the significant reductions in the costs related to it, the decision made by traders as to whether to truck or to trek their cattle to their final destination is subject to a complex trade-off involving a variety of factors.

Over the years, the mode of transporting cattle over large distances and to a smaller extent over short distances has altered significantly. In short, truck availability has increased and the costs of truck transport have concomitantly decreased. In Benin, cattle traders started to make increased use of truck transport from the 1970s onwards (cf. Brégand 1998, 191-217). Before then, cattle were predominantly trekked on the hoof and truck transport was extremely rare and costly. In addition, traders used the services of existing railways such as the stretch between Parakou and Cotonou. In 1963, an estimated 10,000 head were transported by rail between these two cities (Hetzel 1974, 216). Trekking cattle all the way to Cotonou had been officially prohibited since 1961 (ibid). Since the mid-1980s, however, truck transport has clearly become more popular than train transport. Nowadays, most cattle arriving at the Cotonou market are transported by truck. The constraints to trekking in the southern part of the country, improved road conditions and the availability of trucks in sufficient numbers have constituted the main determinants of this change. In northern Benin, the increase in the number of trucks was specifically related to the cotton boom which has enhanced private investment in the transport sector. The need to transfer (bulky) cotton from production areas to the ginning factories and from there to Cotonou harbour has led to a growing demand for trucks: 10-ton trucks for short and 30-ton trucks (the so-called titans) for long distances. A further contribution to the development of transport opportunities was made by trucks which, following the uranium boom in Niger during the 1970s, increasingly transited Benin in order to pick up freight in Cotonou harbour. On their way southwards, some of these trucks loaded cattle for Bohicon or Cotonou.

The changes in Benin reflect the overall situation in West Africa. The trekking of animals from livestock production zones in the Sahel to coastal cities such as Accra and Abidjan has changed to a combination of trekking and trucking being used. Due to increased population densities and claims on land for agricultural or residential purposes, trekking became much more difficult in the forest zones of countries such as Côte d’Ivoire, Ghana and Togo. In the former two countries, the authorities even prohibited trekking in the south (Kulibaba 1991). The use of trucks provided a good alternative to cover those parts of the itinerary: cattle were loaded on a truck in one of the northern towns of the
coastal countries. At a later stage, trucks were also used exclusively to transport cattle from Sahelian markets to the coast. The advent of trucking as a popular mode of transport in the 1980s not only provoked a downward trend in the use of railways in Benin, but in other West African countries as well. In Burkina Faso for instance, the use of trains for the transport of cattle decreased by 60 per cent between 1985 and 1990 (Metzel & Cook 1993). In Nigeria too, investments were directed to roads and trucks which diverted a large part of the freight business away from the railways (Cook 1991). Nowadays, the transport of cattle by train is only used by a small number of traders. Although it is generally less expensive, the administrative procedures as well as the considerable delays before departure have led to most traders refraining from using this mode of transport. Using trucks, on the other hand, is convenient for a rapid arrival which, in turn, enables a quicker rotation of capital. A further advantage is the reduction of risks related to animal mortality, disease, theft and crop damage. Trekked herds are much more exposed to these types of uncertainties.

The inconvenience of using truck transport is primarily its liability to taxation en route. Several studies have demonstrated that when cattle are trucked, official and unofficial taxation is substantially higher, in particular on itineraries which involve 'cross-border trucking' and the ensuing contacts with customs officials. Official taxation (sometimes qualified as 'formal costs') includes export and import taxes, export licenses or transport documents. On the other hand, unofficial or 'informal' taxation refers to bribes and extortion imposed by public agents during the performance of their official duties (USAID 1991, 11), the so-called taxes sauvages. They have been a common phenomenon for the international cattle trade in West Africa. Although almost every cattle trader who transports cattle over large distances is confronted with unofficial taxes, they are generally acknowledged to be higher for cross-border itineraries and itineraries covered by trucks (USAID 1991; Metzel & Cook 1993). The same remarks are obviously true for official taxes. When an international border is traversed by truck, taxes have to be paid or 'negotiated'. Table 5.10 presents a number of such itineraries involving both border crossings and truck transport.

Table 5.10  Selected financial parameters (expressed as % of total costs) for various cattle trade itineraries in West Africa during the 1990s

<table>
<thead>
<tr>
<th>itinerary</th>
<th>mode of transport</th>
<th>year</th>
<th>purchase price</th>
<th>marketing costs</th>
<th>net profit</th>
<th>marketing costs/km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niger - Nigeria</td>
<td>truck</td>
<td>1990</td>
<td>82%</td>
<td>18%</td>
<td>26%</td>
<td>10 francs</td>
</tr>
<tr>
<td>Nigeria (north to south)</td>
<td>truck</td>
<td>1990</td>
<td>94%</td>
<td>6%</td>
<td>5%</td>
<td>-</td>
</tr>
<tr>
<td>Niger - northern Nigeria</td>
<td>trekking</td>
<td>1990</td>
<td>96%</td>
<td>4%</td>
<td>3%</td>
<td>-</td>
</tr>
<tr>
<td>Mali - Côte d'Ivoire</td>
<td>truck</td>
<td>1991</td>
<td>83%</td>
<td>17%</td>
<td>7%</td>
<td>17 francs</td>
</tr>
<tr>
<td>Burkina Faso - Côte d'Ivoire</td>
<td>trekking/rail</td>
<td>1991</td>
<td>76%</td>
<td>24%</td>
<td>7%</td>
<td>17 francs</td>
</tr>
<tr>
<td>Mali - Côte d'Ivoire</td>
<td>trekking/truck</td>
<td>1992</td>
<td>76%</td>
<td>24%</td>
<td>12%</td>
<td>-</td>
</tr>
<tr>
<td>Burkina Faso - Côte d'Ivoire</td>
<td>truck</td>
<td>1993</td>
<td>82%</td>
<td>18%</td>
<td>12%</td>
<td>15 francs</td>
</tr>
<tr>
<td>Burkina Faso - Côte d'Ivoire</td>
<td>truck</td>
<td>1995</td>
<td>85%</td>
<td>15%</td>
<td>6%</td>
<td>19 francs</td>
</tr>
<tr>
<td>Mali - Côte d'Ivoire</td>
<td>truck</td>
<td>1996</td>
<td>87%</td>
<td>13%</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>


33 In 1996, train transport cost 3,000 francs per animal between Parakou and Cotonou as opposed to 5,000 francs per animal for truck transport.
For the 'trucked' itineraries of Table 5.10, official and unofficial taxation account for 10-30 per cent of marketing costs. On the contrary, payment of taxes is considerably lower for the itineraries presented in Table 5.9. No formal taxes are paid since all cross-border transactions between Benin and its neighbours are illegal. Moreover, the strategies of traders to avoid contact with customs officials aim to eliminate the eventual necessity of 'negotiating' a passage. As the traders say, "... on est obligé de contourner la douane ..." (we have to bypass the customs). Unofficial taxation, however, does exist and is particularly common on those parts of the itineraries covered by truck. Interestingly, according to the traders themselves, the impact of bribes and extortion on marketing costs in Benin has gradually diminished over the years. This observation is substantiated by several studies which found informal taxation to be much higher during the 1970s and 1980s (Josserand & Sullivan 1979; Manigui & Medenou 1989; République du Bénin 1989). Although no exact figures are available, traders claimed informal taxation to be particularly severe at the end of the 1970s. In 1989, total taxation equalled 1,200 CFA francs per animal between Goumori and Cotonou (Manigui & Medenou 1989). At that time, this corresponded to 10-13 per cent of total marketing costs. Over the years, the fight against bribery and extortion has been a major concern for the syndicate of cattle traders. The issue was discussed with local and with national authorities and although some of these initiatives proved to be successful, others only had a temporary impact. In 1996 and 1997, the amounts of unofficial taxation demanded at the various fixed customs, police and veterinary services control posts along the Malanville to Cotonou stretch together made up 'only' 4 per cent of total marketing costs. Still, the exact amount paid to officials depends on the number of incidental road blocks encountered. Despite the reduction in bribes demanded on internal routes, exports of cattle continue to be carried out on the hoof or by a combination of both trucking and trekking. This is shown in Map 5.6.

For all international itineraries, borders are crossed on the hoof. The major reason for this practice is the above-mentioned historically-rooted suspicious attitude towards customs officials. According to traders, crossing the border on the hoof keeps expenditure on taxes and bribes low. A similar observation was made by Metzel & Cook who stated that taxes are not strongly significant in changing the incentives to trade, although they may alter the routes and modes of transport used (1993, vi). An additional reason for trekking cattle is that trucking would be unfeasible on trajectories which are characterised by a general low intensity of truck transport, such as between Goumori and Djougou/Sokodé (to reach Lomé) or between Goumori and Nikki/Tchicanda (to reach Saki). Map 5.6 reveals that specific routes exist for the export of cattle to Nigeria and Togo. Having crossed the border, the final part of the itinerary is covered by truck, with the exception of those going to Saki, which is located not far from the border.

Bribery is notably encouraged by the absence of trucks specifically designed for the transportation of cattle. The use of ordinary trucks necessitates the employment of herders who watch over the animals while sitting on the trailer but this is officially prohibited in most West African countries. Thus, bribes are often paid when officials are encountered. According to Brégand (1998, 223), this concerns a trade-off. Although bribing increases marketing costs it equally facilitates the bypassing of the law.
The strategy of combining trucking and trekking is indicative of the general observation that traders meticulously weigh up the advantages and disadvantages of the various modes of transport (USAID 1991; Kulibaba 1991). A trade-off between trucking, trekking or using both is made for each separate itinerary, be it short or long. This consideration is not only based on the direct costs involved but incorporates a risk-aversion component as well. For instance, although combining trucking and trekking is convenient in avoiding the payment of taxes and bribes to customs officials, it is particularly time-consuming: the conveyance of cattle from Goumori to Saki takes approximately 18 days and the combined truck/trek itinerary between Guéné and Lomé requires around 20 days. In 1996, some cattle traders were even prepared to cover the final part of the 'Lomé route' by trekking, despite the risk involved in terms of conflicts with farmers and accidents which commonly occur when cattle is conveyed along the roadside (cf. Section 7.2). Traders reasoned that the trucking option incurred a greater risk because of the proliferation of checkpoints and the
substantial amounts of bribes that had to be paid at that time (cf. Table 5.9c-d). In the same light, the traders who opted to truck their cattle from Burkina Faso to Côte d’Ivoire had also weighed up the pros and cons. For example, some were prepared to pay the unofficial and official taxes at the border because they were transporting fattened animals whose weight-loss would be considerable when trekked. Others wanted to arrive in Abidjan (the main consumer market) as quickly as possible to take advantage of favourable supply conditions.

Notwithstanding the rise in truck use, the trekking of cattle on the hoof continues to be an important mode of transport throughout West Africa. In addition to the objective of reducing marketing costs related to official and unofficial taxation, trekking is predominantly used for the following purposes: (1) to cover itineraries where trucking would be too expensive, i.e. when short distances or small numbers of cattle are concerned and (2) to cover itineraries inaccessible to trucks. Trekking is the most common mode of transporting cattle at the local and regional levels of trade. This situation equally applies to Benin. The majority of cattle move ‘on the hoof’ between markets which are situated in the interior of the so-called exchange circuits. Given the poor road conditions, some of the regional itineraries have to be covered by trekking too. Moving cattle from Goumori to Kolokondé (or to Parakou), for instance, requires trekking because using a truck would be too expensive or simply impossible, especially during the wet season. However, even though trekking continues to be the major mode of transport in northern Benin, the situation has changed over the last decade with the intensification of truck use since the 1980s. Nowadays, trucking cattle is common practice along the Parakou - Karimama stretch. For instance, traders from Parakou collaborate to load so-called titans (large, 30-ton trucks which can hold around 30 cattle) at the Gogounou, Pari and Guéné markets, situated along the asphalt road. Similarly, traders from Kandi and butchers from Malanville load their animals onto 10-ton trucks or on smaller ‘pick-up trucks’ at the same markets but also in Karimama which is less accessible to large trucks. The number of animals supplied to these weekly markets is sufficiently high to facilitate the purchase of several truckloads of cattle. In contrast, the average per-market-day supply at the Goumori and Founougo markets, held every four days does not always allow traders to purchase a truckload of cattle. In addition to the poor condition of feeder roads, this makes truck use at these markets fairly uncommon. A further objective for trekking cattle comes to the fore when the cattle trader pursues a specific strategy for which trekking is the required mode of transport. This is often the case when the animals are deliberately taken to specific pasture areas on their way to the destination market. These types of strategies require particular pastoral skills which not all traders possess. The background to these trading strategies is elaborated on in Section 8.3.

The direct costs incurred by trekking cattle are salary and subsistence costs for cattle drovers. Salary costs for herders are slightly higher for those who trek cattle compared to those who only have to accompany the herd on a truck. Potential cattle drovers are available in sufficient numbers and opportunity costs for labour are generally low given the scarcity of labour market alternatives for the Fulani herders. Thus, almost no seasonal fluctuations in labour costs occur. It will be demonstrated in the forthcoming chapters that...
trekking cattle over long distances and across borders not only requires the employment of specialised cattle drovers but the establishment of trust relationships as well. The maintenance of a confidence bond is facilitated through specific investments in networking (social capital). This type of expenditure is hard to quantify in terms of additional marketing costs. The way in which cattle traders deal with these aspects of relation management will be dealt with in Section 8.1.

The direct costs incurred by trucking cattle include truck hire and search costs. Over the past decades, the costs associated with the truck transport of cattle have gradually decreased compared to other cost categories. However, the cost of truck hire in Benin reveals seasonal variations as a result of fluctuations in competition for available trucks. This is an important remark that relates to the nature of cattle as truck freight. It has already been emphasised that the transport sector in northern Benin is closely related to the cotton sector. Investment in trucks was stimulated by the attractiveness of transporting cotton for the state cotton marketing board.\(^{36}\) In view of this, truck owners tend to consider cattle as secondary freight only. For truck drivers from Niger, cattle also constitute secondary freight. The profitability of a Niamey - Cotonou return trip is much more dependent on the return freight from the harbour which usually consists of imported food grains, consumer goods or containers. Most truck drivers from Niger take cattle freight on their way southwards on a personal account, without the truck owner knowing. Again, seasonal competition with other freight plays a role. Whereas cotton constitutes a major seasonal competitor in the region south of Banikoara/Kandi, onions and small ruminants do so in the northern Borgou region. On a seasonal basis, prices offered for the transport of onions or groundnuts (dry season) and sheep or goats (just before Tabaski) clearly outweigh those offered for cattle.\(^{37}\) On the other hand, the intensive transport of yams from Djougou to Malanville during the wet season increases the possibility for cattle as return freight to, for instance, Parakou.

The seasonal competition associated with the availability of trucks for cattle transport has an impact on marketing costs. On the Founougo/Goumori to Cotonou stretch, for instance, the 8,200 francs mentioned in Table 5.9a occasionally rose to around 10,000 francs per animal between December and April. Likewise, truck owners from Malanville declared that they were offered around 400,000 francs for renting out a 30-ton truck for onion transport in April. This would work out at around 12,500 francs per animal which is far too much for a cattle trader to make his activity profitable. However, this type of competition occurs typically just after the onion harvest and is usually short-lived. The continuing availability of trucks from Niger coupled with the substantially lower intensity of cotton transports makes for smaller seasonal variation in truck hire in the region around Malanville. This is reflected in a lower year-round average for truck hire to Cotonou (cf. Table 5.9b). As a result of this situation, access to (affordable truck) transport in times of seasonal competition becomes a crucial factor for the continuation of a cattle trader’s activities.\(^{38}\) For individual cattle traders, access is to a large extent determined by network relations with truck owners or transport brokers (cf. Section 8.1). Access to transport

\(^{36}\) An additional advantage of transporting cotton is the reduction of 'problems' (bribes) with officials because the truck owner has been engaged by the state marketing board for cotton.

\(^{37}\) For the remaining part of the year, prices for cattle transport are commonly higher than those for sheep and goats since the former are more difficult for the truck drivers to handle.

\(^{38}\) Seasonal competition for truck transport is less in Nigeria where substantial numbers of 10 ton trucks, traditionally used for cattle transport between Kamba and Ibadan, are available.
becomes equally crucial in the light of the virtual absence of truck ownership among cattle traders. Although some cattle traders possess 10-ton trucks, only few were willing or could afford to invest in 30-ton trucks which are used for the transport of cattle to Cotonou.

Profitability of cattle trade

One of the essential parameters of Tables 5.9 and 5.10 is the relationship between the purchase price, marketing costs, total costs and the sale price. For all itineraries, the purchase price of the animal clearly dominates the cost structure. Expressed as a percentage of the sale price, it is between 89 per cent and 93 per cent of total costs for the itineraries presented in Table 5.9. With regard to Table 5.10, the percentages range from 76 per cent to 96 per cent. For itineraries in Benin, marketing costs vary between 7 per cent and 11 per cent of total costs. The lowest percentages were registered for the Goumori/Founougo to Saki itineraries which are exclusively covered on the hoof. The highest marketing costs were found between Goumori/Founougo and Cotonou, which is principally due to the amount spent on truck hire (63 per cent of marketing costs). On average, the costs of hiring a truck represented 55 per cent of all marketing costs. When the employment of cattle drovers is taken into account this percentage increases to 68 per cent, with a maximum of 74 per cent for the Goumori/Founougo to Cotonou route. From a regional perspective, this is rather high. Comparing the transport and handling costs of various West African itineraries, Holtzman & Kulibaba (1992, 106) found percentages to range between 52.7 per cent and 61.3 per cent. It was argued that this distinction primarily results from differences in the taxation component, which is comparatively low in Benin.

For Table 5.9 as well as for Table 5.10, the figures indicate a relatively high level of efficiency when compared to other food grain marketing channels in Africa, for which the average producer price expressed as a percentage of the final consumer price typically ranges between 30 per cent and 60 per cent (Ahmed & Rustagi 1984). However, the sale price at the butcher’s level does not yet correspond to the final retail consumer price. Accounting for costs incurred for wholesale and retail butchery activities (slaughter costs and taxes, meat storage, transport and retail costs) as well as the retail price of meat, the percentage obtained by the producer would ultimately range from around 63 per cent for an animal sold in Cotonou (cf. Table 5.9a-b) to around 59 per cent for a Burkina Faso animal sold in Abidjan, Côte d’Ivoire (cf. Table 5.10). Still, cattle marketing cost figures remain more efficient compared to other marketing channels.

In spite of their general efficiency, the marketing costs for each separate itinerary do not reveal a straightforward relationship with the profit margin obtained. Neither do the profit margins display a clear trend regarding the mode of transport used and the associated costs. This indicates that other factors determine the variance observed in profit margins.

The profitability of trade gives an indication of the efficiency of a marketing channel. At first sight, the profit margins obtained by cattle traders do not appear excessive. The average net profit in Table 5.9 (a.-f.) is 8.5 per cent of total costs and for the routes presented in Table 5.10 it is 10.3 per cent. An overview provided by Metzel & Cook (1993) of cattle trading in Ghana, Burkina Faso and Côte d’Ivoire gives an average profit margin

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39 The latter percentage is based on calculations from figures provided by Bedu & Royer (1995, 40).
of 7.7 per cent. However, these percentages should be interpreted carefully. Most studies dealing with the profitability of long-distance cattle trading have pointed at the significant spatial and temporal fluctuations in profit margins (Josserand & Sullivan 1979; Cook 1991; Holtzman & Kulibaba 1992). Profits potentially vary between markets, seasons and individual animals.

First of all, fluctuations can be due to the supply conditions at the destination market. The number of animals presented is not evenly spread over the year, over months or even over market days. The most crucial fluctuations in supply occur between days, with consumer markets being commonly held on a '7-day-a-week' basis. Despite occasional attempts by traders, there is absolutely no scheduling or co-ordination of arrivals of truckloads of cattle from northern markets. Competition between traders is unregulated and many of them descend on markets without acquiring appropriate information about prices and supply. This can result in the simultaneous arrival of several truckloads of cattle. Given the high costs involved in maintaining the animals in urban coastal areas (in terms of nourishing and watering them as well as disease risks), traders are not inclined to postpone their sale in anticipation of eventual price increases. The reason that traders do not acquire market information before their departure is at least partly due to the absence of an information system and the poor state of telecommunications between rural areas in the north of the country and urban centres in the south. Although contacts between traders and their landlords do exist, information is usually transmitted by traders who have just returned from the destination market. Up-to-the-minute information is thus unavailable. Moreover, an acute response to favourable supply conditions could be feasible in the case of itineraries where trucks alone are employed but this becomes inconceivable when the trekking of animals takes several days.

In a somewhat more structured fashion, supply conditions at destination markets fluctuate between seasons, as is shown by Graph 5.26 which presents the case of the Cotonou market. Although sharp fluctuations in monthly supply do not occur, the data reveal that in 1995 high numbers of cattle arrived from just after the harvest season (September) until January, a trend which corresponds to the supply picture of markets in the north (cf. Section 5.1). In general, this period is characterised by low profit margins and losses among traders, a situation which is similar to that at other West African coastal markets (Cook 1991). Supply becomes scarcer from April onwards when supply at northern markets equally decreases. To some extent, the reduction in supply in Cotonou is due to the seasonal difficulties traders are confronted with when hiring trucks.

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40 Back in the 1960s, Hill (1966, 9) reported the numbers of cattle arriving at the southern Nigerian markets to be 'extremely fluctuating'.

41 In Benin, an association of cattle traders was created in the 1980s in order to schedule and streamline transports of cattle to the market in Cotonou. Cattle traders from Borgou and Atacora provinces tried to establish a system of 'turns' in which traders from distinct districts were scheduled for cattle transports to Cotonou during a specific period. The main objective was to improve the competitive position of cattle traders and stabilise prices through a regular supply of cattle. Moreover, the organised cattle traders would constitute an important force against the problems of credit reimbursement by butchers. Although similar initiatives appear every now and then, they have never been successful since many traders bypassed the 'tour system', and coherence was lacking among the 'leading' cattle traders who participated in the organisation.
Seasonal supply fluctuations at the Cotonou market

Graph 5.26  Seasonal supply fluctuations at the Cotonou market

As at the cattle markets in northern Benin, prices at coastal markets are not fixed on a per-kilogram-live-weight basis. The price is determined for each animal after negotiations between the seller and the buyer. This means that the specific features of the animal as well as the prevailing supply conditions both exert an influence on the actual sale price and hence on the profit margin of a trader. In the absence of standardisation, this price is further determined by the negotiating experience of the trader and the butcher. Occasionally, the landlord who accommodates the visiting trader will intervene in the discussion. This is likely to obscure the negotiation process and landlords were observed to apply strategies which dissimulate price information for the trader in exchange for an extra 'commission' from the butcher. The occasional complicity between butcher and landlord is remarkable in the light of the strong relations which traditionally link the landlord to the trader. At the same time, it does not necessarily obstruct these relations which comprise several aspects, and has probably been a phenomenon over time.

With respect to demand at coastal markets, butchers purchase the large majority of cattle. Their demand is relatively stable throughout the year, but a slight increase in the number of animals purchased is observed between September and January, as a result of the increase in supply and the concomitant low price levels. In December, the number of cattle slaughtered typically peaks around Christmas and New Year. The impact of Islamic festivities such as Tabaski is less noticeable on the cattle market, but much more so on the market for sheep and goats. A distinction can be made between wholesale butchers (who purchase and slaughter cattle) and retail butchers (who purchase carcasses and sell meat). The butchers with a large purchase capacity employ apprentices to assist them in a variety of tasks. Without exception, the number of butchers at coastal markets in West Africa is high. Within this group, the number of retailing butchers clearly outweighs the number of wholesale butchers. In the literature, the butchers have typically been depicted as strong and homogenous. In Nigeria, Cook affirms that '.. butchers are commonly considered as a well organised group with significant power which they will use to retain their influence in trade ..' (1991, 68). Also in Togo and Ghana, the butchers constitute a strong professional group. In Ghana in particular, the syndicate of butchers is an association with significant influence which effectively controls a system of fixed meat prices in various localities (Wenner & Mooney 1995, 30; McCorkle 1995). Butchers' profit margins are flexible since the general system of fixed meat prices contrasts with the 'free market' system of purchase prices for cattle. In fact, the butchers' strong organisational features seem to pertain to the
retail side in particular. With respect to cattle purchases, price arrangements or collusion are much less common. In a pattern similar to that at northern cattle markets, the number of big (wholesale) butchers is small and the number of small butchers is large. In Cotonou, the situation is somewhat exceptional since two wholesale butchers cover an estimated market share of approximately 60-70 per cent of all animals purchased for slaughter. In addition, a substantial number of small and often occasional butchers operates alongside them. Even though the big butchers compete for the superior quality animals, their position can be qualified as strong. Moreover, cattle traders tend to prefer to deal with these butchers because they have a slightly better reputation for debt repayment compared to the group of smaller butchers, some of whom occasionally 'disappear' when in debt. The issue of debt repayment introduces the most outstanding feature of the coastal cattle market, i.e. sales on credit.

The distinction between transactions on credit or transactions paid in cash constitutes a final factor which possibly influences price levels and profit margins. A general feature of cattle markets in coastal West Africa, except for those in Nigeria, is the prevalence of credit sales to butchers and the subsequent problems which result from payment defaults (cf. Section 7.2). From a trader's point of view, the highest margins can be obtained on credit sales to butchers. Nevertheless, given the usual delay of reimbursement and the risk of partial non-repayment of debts, some traders make a trade-off and prefer to sell some of their cattle to brokers, who pay less but they pay cash. In addition to butchers, brokers constitute a second, though much smaller group of buyers at coastal markets. The brokers, who should not be confused with the landlord-middlemen, operate exclusively at the market itself, i.e. they buy from cattle traders and sell to butchers or to occasional clients from outside the market. Their position is principally derived from making cash purchases and being present on a permanent basis in order to receive occasional clients. Despite the lower profit, a sale to a broker assures the trader of receiving his money sur place (on the spot) and facilitates a fast return to the north and a quick rotation of capital as well. Still, the number of brokers is low compared to that of butchers.

A similar trade-off is made when a butcher proposes purchasing a whole truckload of cattle upon a trader's arrival at the market. Although the truckload is purchased on credit and at a relatively low price on average, the trader generally saves time, is assured of an outlet and is exempted from the (costly) responsibility of herding his animals. These examples tend to reveal the strategy of traders to deliberately accept a lower margin on sales in order to obtain savings or diminish risks in order areas.

The detailed examination of extremely varying supply circumstances at coastal cattle markets and the inherent character of the sales system have enabled us to emphasise the considerable fluctuations in profit margins obtained for separate animals. Even for an experienced trader it is difficult to assess supply conditions before his arrival at the market. Frequently, for instance, out of 15 animals for sale, a trader will make a profit on only 12 animals, and will lose money on the others. The phenomenon of alternating profits and losses is indicative of the absence of so-called 'excess profits'. No group of traders is capable of making extensive profits for a sustained period of time. On the contrary, '... the supply side anarchy simultaneously offers the possibility of windfall profits and unpredictable losses ...' (Cook 1991, 77). In short, this situation reveals the risks associated with long-distance cattle trading and the inefficient features of the marketing channel.

42 The occasional clients purchase cattle for a particular purpose such as a marriage ceremony.
Sections 5.5 and 5.6 established the picture of the long-distance trade in cattle originating from northern Benin. Along the lines of selected parameters handed out by the Structure-Conduct-Performance framework, we aimed at a general assessment of historical fluctuations in the importance of internal and foreign destination markets and the relative importance of each during the period of the survey. Following this, we focused on marketing costs and profitability in relation to their determinants. Thus, instead of performing a detailed financial analysis of the efficiency and effectiveness of the marketing channel, we singled out these two elements and considered them in their respective historical and West African perspectives. Dealing with just these variables at the structural level of trade will facilitate a better comprehension of the mode of organisation of cattle traders in Benin and explain the nature and of their decisions. However, the analysis has equally left us with unanswered questions. Before continuing, we will briefly reiterate the main findings of the previous sections.

In the first place, a comparison of long-distance trade itineraries revealed no significant differences with respect to marketing costs and the profitability of transactions. Instead, uncertainty and supply fluctuations occurred at all destinations. However, when the findings are placed in the context of the survey results presented in Table 5.8, additional questions are raised. Despite the small differences in marketing costs and profitability, Table 5.8 reveals that trade flows towards the coastal markets differ in size significantly according to the market of departure (Goumori and Founougo on the one hand versus Guéné and Karimama on the other). This implies that additional explanations will have to be considered in order understand this phenomenon.

Second, an analysis and comparison of itineraries reveals two further conclusions: marketing costs are comparatively low and profit margins fluctuate. With respect to marketing costs, the mode of transport utilised by traders reflected the weak institutional structure and the administrative deficiencies of the trade setting. Cattle were smuggled across the border to all foreign destinations, principally to avoid contact with customs officials. Although the practice of trekking appeared to involve only low levels of expenses according to Table 5.9, some factors were too complex to express in terms of cost per animal. These include the cost of risk but also the 'social' transaction costs incurred to maintain a network of cattle drivers (cf. Section 8.1). On the other hand, we concluded that unofficial as well as official taxation was higher on trucked itineraries throughout West Africa. Notwithstanding this, it appeared that the profitability of trade to a large extent depends on the ratio between the purchase and sale prices. The range of factors that impact on the formation of the purchase price were dealt with in Sections 5.1 and 5.2. In addition, the sale price at coastal markets is also subject to a considerable degree of uncertainty. Factors such as credit sales, the lack of transparency in price negotiation and the lack of supply scheduling all contribute to this. The practice of smuggling cattle 'on the hoof' makes timely responses to fluctuations in supply at coastal markets virtually impossible. As a result, profit margins fluctuate substantially between separate transactions, market days and seasons. Together, these elements reflect the significance of risk and uncertainty as a structural feature of long-distance trade.

In short, whereas marketing costs can be considered as relatively efficient in the given context, the factors that impinge upon the sale price reflect a degree of inefficiency, summarised by Cook's use of the term 'supply side anarchy'.
Having examined the marketing costs and profitability parameters with regard to the situation at the time of fieldwork, it will be revealing to consider them in historical perspective. Without performing a detailed mathematical analysis, some remarks will be made on efficiency and transparency developments in the long-distance trade by linking up with the historical overviews of trade provided in Section 5.5 (1970s-1990s) and Chapter 3 (1900s-1960s).

In the past, the long-distance cattle trade was often depicted as inefficient because too many linkages existed between producer and consumer. Ferguson (cited in Cook 1991, 64), for instance, referred to the situation in Nigeria during the 1960s and claimed that '. . . ownership may change 6 to 8 times before final sale . . .' In Chapter 3, it was argued that the inefficiency of the cattle trade in Benin until the 1960s had to be attributed to the lack of transparency due to the outright dominance of a small group of big traders who monopolised the long-distance trade in several respects. Comparing this situation to our description of the current long-distance trade unravels an image of improved efficiency over time. Nowadays, the number of traders involved is substantial and not exclusively confined to big traders. The increase in the number of traders has lead to a situation in which collusion is rare. This has been facilitated at least partly by the reduction of entry barriers discussed in Chapters 3 and 4. Section 5.4 demonstrated that traders more easily participate in local and regional trade, to which participation in long-distance trade is only a small step. The improvements in market infrastructure and transport, notably the increasing availability of and subsequent cost reductions in truck use, have unequivocally contributed to this. Whereas the traders typically made only one or two trips a year until the 1960s (cf. Bellot 1983, 201), the frequency of long-distance trade has increased substantially. Accordingly, the number of animals per trip has been reduced, providing opportunities for smaller traders. Furthermore, traders possess more general information nowadays because travelling has become more convenient and accessible for a larger part of the population. Hence, parallel to developments at the local level of trade, arbitrage activities have increased at the national and international levels of trade. This is substantiated by the remarks of cattle traders about long-term reductions of profit margins. In fact, several indicators point at the reduction of gross margins over time. Again with regard to the situation in Nigeria during the 1960s, Ferguson found gross margins to fluctuate between 50 per cent and 100 per cent (Ferguson cited in Cook 1991, 41). Information from cattle traders in Benin revealed that over the 1960s and early 1970s, gross margins of over 50 per cent were the norm rather than the exception. At that time, the number of long-distance traders was still low and the non-transparency in the market such that a small group of traders could dominate trade and realise lucrative margins. Nowadays, gross margins in long-distance cattle trade have dropped considerably to attain a level of 20 per cent at most, which can be interpreted as a sign of improved efficiency. A final remark concerns the return trade. Chapter 3 as well as Section 5.5 indicated the significance of bringing commodities such as kola, cloth and later (motor) bikes from the sales market back to the home area. The cattle traders have always drawn a significant part of their profits from this return trade (Bellot 1983). Nowadays, however, its profitability has largely diminished. This can be attributed partly to the decreasing attractiveness of the Nigerian market in general and the Naira exchange rate in particular, and partly to the fact that specialised traders have taken a larger share of this 'market'.
5.7 Concluding remarks

In short, whereas marketing costs variations widely across sectors and industries, the factors that influence the total price reflect a degree of inefficiency, especially by making some of the assets 'supply side search'