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CROSS-BORDER CATTLE MARKETING IN SUB-SAHARAN AFRICA SINCE 1900. GEOGRAPHICAL PATTERNS AND GOVERNMENT INDUCED CHANGE

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Abstract

This chapter aims to study the impact of government policies on cross-border cattle marketing in Africa. It analyses the extent to which this type of cross-border trade has been created, diverted or contracted as a result of government policies.

The chapter portrays the geographical patterns of cattle trade in the pre-colonial, colonial and post-colonial periods. It examines the main reasons for the increase, decline or diversion of cross-border cattle trade and it specifically pays attention to trade and other policies.

The volume of cross-border cattle trade in Sub-Saharan Africa, which is often long distance trade, became significant when the colonial economy developed. Population growth, export production and increased incomes triggered demand for meat in newly emerging consumption areas. Whereas colonial trade policies contributed little to this expansion in West Africa, government interventions in East and Southern Africa had more impact. However, despite the stronger grip of the state on cattle marketing in East and Southern Africa, much of the cross-border cattle trade in these regions was in the hands of private traders like in West Africa. In the post-colonial era, government interventions increased through the creation of cattle and meat marketing boards. However, in West Africa many of these boards never functioned properly. In East and Southern Africa their impact was substantial, still most of them were dismantled under structural adjustment programs.

The chapter concludes that mainly changes in supply caused by (civil) wars and droughts, and changes in demand caused by rising and falling economic prosperity have had significant impact on cross-border cattle trade, which was accordingly created, diverted or contracted. Notwithstanding differences between West Africa on the one hand and East and Southern Africa on the other, government policies aiming at intervention in cattle marketing only temporarily and to a smaller extent affected cross-border trade. Slightly more important are general economic policies resulting for example in currency fluctuations. Private cattle traders are acknowledged for their remarkable responsiveness to both short and long term opportunities cross-border cattle trade, legal or illicit, offer to them.

1. Introduction

This chapter aims to study the impact of government policies on cross-border cattle trade in Sub-Saharan Africa. In its analysis, it follows the debate on the *espace céréalier* (common food grains market) in West Africa, which discussed the effects of borders and different national trade policies on the efficiency of the macro-regional food market. Particular attention will therefore be paid to geographical patterns of cross-border cattle trade and national trade policies. Our aim is to determine to what extent this trade in Sub-Saharan Africa, which is often long distance trade at the same time, has been influenced by different national (trade) policies and the existence of political boundaries.

In the debate on the espace céréalier in West Africa (De Haan et al., 1995), discussion focused primarily on the extent to which cross-border trade is influenced by government policies and whether harmonisation of government policies, i.e. regional integration, is needed to ensure a more efficient functioning of food grains markets. It was noticed that discrepancies in national trade policies were creating cross-border trade. For example, rice was re-exported in large quantities from countries permitting, in the absence of a significant national rice production, cheap imports from the world market to countries protecting their national rice production with high producer prices. In addition, cross-border trade occurred between countries where differences between the real value of the national currency and the official value, the so-called overvaluation, could be exploited resulting in attractive profits. Due to the official regulations, which often restricted or even banned cross-border trade, most of it was illicit (De Haan et al., 1995, 69).

Egg et al. (1988) and Egg & Igué (1990) have demonstrated the importance of these factors in the food grains trade in post-colonial West Africa. Although they consider comparative advantages in food production as the major determinant of cross-border trade flows, they point in particular at disparities in economic, notably monetary policies to explain the numerous examples of cross-border trade they found. They further mention the cultural bonds between people who live at both sides of a border as a factor that facilitates this trade. In addition, Grégoire (1986, 136-144) describes the strategies of Hausa traders from Niger who imported cigarettes and textiles from Europe through the Cotonou harbour in Benin (2), whereby they used the services of NITRA, the Niger government transit organisation, to fulfil all formalities. Cigarettes and textiles were subject to prohibitive import restrictions in Nigeria but the Niger Hausa traders made use of extensive trade networks to bring the merchandise to Nigeria, after it had been in transit through Niger. These types of transactions generated enormous profits for the traders involved (*ibid.*).

One of the questions in the debate was whether harmonisation of these national policies would result in an increase or decrease of trade. Some discussants argued that once trade was liberated from regulations, the free market would generate more trade. Others maintained that once traders could no longer exploit price differences caused by government policies, trade would shrink. The concepts used in this debate, like trade creation and trade diversion, were derived from Viner (1950). Viner only paid attention to trade between countries, i.e. cross-border trade. He advocated free international trade as the most efficient and thus optimal kind of trade, and considered establishing customs unions as sub-optimal because it implies discrimination against other possible trading partners. According to Viner (see Aalbersberg 1996) two kinds of inter-country substitution would result from the establishment of a customs union. Trade creation would occur if sources of supply shift from domestic ones to foreign ones inside the customs union. Trade diversion would occur if sources of supply shift from a foreign country outside the customs union to a foreign country inside the customs union.

To analyse cross-border cattle trade in Africa we will make use of these concepts of trade creation and trade diversion. However, we will not use them to evaluate the establishment of customs unions but rather as a tool to relate geographical patterns of cross-border cattle trade to trade policies and other government policies. Therefore, we should not overlook trade contraction as a third possibility. Contraction might simply be the result of failing demand, but in the case of customs unions, harmonisation of policies might result in a decline in interest in the foreign market because exploiting differences in real and official value of currencies will no longer be attractive.

We expect that the creation of boundaries during the colonial epoch, with corresponding tariffs and other trade barriers such as quarantines measures and export bans, have caused a similar, sub-optimal restructuring of cattle trade patterns. Trade flows may have been contracted or diverted because of new policies. However, new trade flows may have resulted from this as well.

In summary, in this chapter we will extend the analysis of changes in trade flows as a consequence of government policies, known primarily from food trade and trade in export products, to cross-border trade in cattle. We have tried to cover the whole of Sub-Saharan Africa . However, the bulk of our argument stems from field observations in Kenya and the central part of West Africa, supplemented by literature surveys for the whole of West and East Africa. We will therefore discuss cross-border cattle trade in Southern Africa only in general terms. In addition, we will demonstrate that cattle trade, as far as it was influenced by colonial and post-colonial policy, was influenced differently in the various parts of Africa. In East and Southern Africa, settler dominance dictated cattle marketing, while in West Africa, cattle trade remained an African activity throughout the colonial period. The explanation of these different marketing environments lay in the different production structures. Cross-border cattle trade is often synonymous with long distance trade, especially when pre-colonial and early colonial cattle trade is concerned, because it links production and consumption areas with one another which are sometimes situated more than a thousand kilometres apart, such as in West Africa. However, cross-border trade is not always long distance trade. Therefore, our analysis concerns cross-border trade over shorter distances too.

In the next section, we will present a sketch of pre-colonial and early colonial geographical patterns of cattle trade. In section 3 and 4 we will examine the changes that occurred in these patterns, first in the colonial period and then after independence, and their link with government policies and other interventions. The final section will summarise our main conclusions.

2. Initial patterns of livestock trade

In a recent study, Kerven (1992) points at the existence of long distance livestock trade flows in pre-colonial Sub-Saharan Africa. Many historians seem to have neglected this trade, perhaps because they were more interested in export goods like ivory and slaves. Most livestock was traded in networks of which the core business was oriented towards luxury products such as gold or cloth rather than towards livestock. Nevertheless, livestock and livestock products such as skins and hides and leather featured in these trading caravans.

In his pioneering economic history of West Africa, Hopkins (1973, 58-73) explains that for centuries products were traded between the complementary ecological zones of this region. In the northern parts of West Africa, extensive livestock rearing took place, while the southern parts were hardly suited for stock breeding due to trypanosomiasis caused by the tsetse fly. Thus, livestock products from the Sahel and salt from the Sahara were exchanged for slaves, ivory and kola nuts from the forest zones. According to Kerven (1992, 50), the urban areas of the Hausa-Fulani emirates, situated within the livestock zone, were important outlets too. In the nineteenth century, West African pre-colonial long distance trade was monopolised by Hausa and Dyula traders. The Hausa transported leather, textile and salt from Hausaland to Ashante in large caravans of porters and donkeys, and brought kola nuts in return. Their caravan routes traversed present-day Benin and Togo. Norris (1984, 170) reports that 10% of the value of products traded by the caravans traversing Togo was made up of cattle and other livestock. Dyula traders dominated the western parts of the sub-region and were involved, among other products, in the dried fish trade from the Niger inner delta southwards. Generally, trade patterns were determined by the location of prosperous regions such as Ashante and Hausaland as well as the region around Kankan in north-east Guinea. Because of high transportation costs, long distance trade was mainly limited to luxury products which only the high-income elite could afford.

In Eastern Africa long distance trade developed from the early nineteenth century onwards and was mainly dominated by Swahili and Arabs from the coast. With respect to this region as well as to Southern African patterns, Fage (1995) mentions gold, in addition to ivory, slaves, cloves and only occasionally skins, as the major trade products. All of these were considered to be export products because African communities themselves were hardly diversified (Fage, 1995, 323). Kerven (1992, 16-17), however, taking a closer look at East African pastoral economies, not only presents evidence of local trade between pastoralists and peasants but of long distance trade as well. Due to the relative proximity of ecological gradients in East Africa, exchange of food grains and livestock products between peasants and pastoralists was usually short distance trade. However, long distance cattle trade took place as well. After the devastating pandemics of the late nineteenth century, Maasai demand for stock was such that present-day Kenya and Tanzania were included in the long distance livestock trade from Somalia and southern Ethiopia. Somali traders would barter camels for heifers and young bulls in the northern rangelands of Kenya. These animals would be taken to the Maasai area and exchanged for mature bulls, which were sold in the emerging consumer centres.

In general, the direct interference of African authorities with trade is judged minimal. Authors such as Lovejoy (1980) considered this of prime importance for long-distance trade to flourish. Even so, some pre-colonial states did meddle with trading caravans within their territory. This usually concerned substantial taxation in exchange for protection.

3. The colonial era

Geographical patterns

From the early stages of colonial occupation, flourishing export crop economies in West Africa led to a significant increase in demand for meat (3).Transformation and intensification of pre-colonial trade patterns in West Africa therefore occurred in the early colonial era. This was particularly true for southern Ghana, Nigeria, and Senegal.

For example, the rise of cash incomes in the cocoa region of Ghana and the oil-palm region of Nigeria, raised demand for meat and consequently stimulated livestock trade from the Sudan and Sahel belts to the coast. In German Togo, the savannah region already supplied cattle to the coastal export production zone of Togo and Ghana from the turn of the century onwards (De Haan, 1993, 65,109). Norris (1984, 181) and De Haan (1993, 108) make clear that the importance of northern Togo as a transit area for the long distance trade in kola nuts declined at the beginning of the 20th century. Instead of travelling to Ghana directly through Benin and Togo, traders now travelled first to Gourma and Mossi areas in present-day Burkina Faso in order to trade textile for cattle. The cattle was then transported on the hoof to the coast and sold at considerable profit. Next, kola nuts were bought and, due to their perishability, transported straight to Hausaland. By then, the Hausa traders increasingly made use of regular, modern ocean-going shipping connections in the kola nut trade (Hopkins, 1975, 248), thus shifting their trade routes to the coastal ports. Then it was shipped to another port on the coast and than again inland. In 1904 and 1905, present-day Ghana imported some 16,000 heads of cattle from present-day Burkina Faso, a number that had quadrupled by 1950 (Skinner, 1964). This example reflects the restructuring of pre-colonial trade patterns as well as the first steps towards modernisation of transport means, although livestock was to be transported on the hoof for a long time to come.

Livestock exports towards southern Nigeria, especially to the booming cities of Lagos and Ibadan, rose from 8,000 in 1906 to around 200,000 animals per year in the 1930s (Hopkins, 1973, 248), an estimated 125,000 originating from the French territories to the north (Kerven, 1992, 56). In contrast to this, the northward trans-Sahara trade slowly collapsed (Kerven, 1992), because of taxation by the French and increased competition from commodities imported through the coastal ports.

Meat was imported from Europe into West Africa in considerable quantities as well. In the late 1950's, about 19,000 tons annually were brought into the region, mostly frozen and canned meat (Mittendorf & Wilson, 1961). Total imports from Europe into North and West Africa had risen from 23,000 tons in 1950 to 65,000 tons in 1959(4). Because these are considerable quantities, frozen meat will not only have been sold to Europeans and African higher income groups. However, it is difficult to determine to what extent imported meat was in competition with indigenous cattle production.

In East Africa pre-colonial patterns of cattle trade were much more disrupted. Sales from African livestock producers in Kenya were generally hampered by veterinary quarantines. Trade between indigenous producers and white settlers or with the newly established consumer markets was only allowed when demand for local stock was (too) high. This was the case when settlers needed stock to start their ranches, or when demand for meat was high such as during the First World War. During the droughts of 1918-21 and the late 1920s, increasing numbers of animals came on the markets, causing massive slumps in prices due to the restricted possibilities for sale. Illegal trade took place between cattle producing areas and areas of emerging African small scale agriculture and the developing urban centres. Cattle was brought illegally from Kenya to Tanzania as well, where it caused problems of diseases, as the Tanzanian government had been giving much attention to the eradication of diseases among the local herds. In fact, here we witness the continuation and extension of a trade flow already established in the pre-colonial period. In the mid 1930s, double the number of animals were marketed in Kenya compared to the 1920s (Kerven, 1992). By then, producers were encouraged to sell to emerging African consumer markets. Official figures indicated an increase from 8,000 to 24,000 heads of cattle and from 14,000 to 48,000 heads of small stock sold annually in the 1930s. During the Second World War, 25,000 heads of cattle a year were sold by Maasai producers to supply meat to the armed forces.

The pattern that developed in the 1950s was more complex. White settlers in Kenya marketed most of their livestock through the Kenya Meat Commission, established in 1950. KMC served the settler population mostly, apart from exporting to Europe. Considerable numbers of African livestock came from Northern Kenya and Somalia to the coast, from the southern rangelands to both Nairobi and Tanzania, and from the Western part of Kenya, the Rift Valley, to Nyanza Province and Uganda. In 1957-58, for example, official records suggest between 50,000 and 63,000 heads of cattle marketed to Nyanza and Uganda from Rift Valley producers and Trans Mara Maasai (Republic of Kenya, 1959). Some cattle came from southern Sudan to Uganda as well. Cattle would also come from the central parts of Tanzania to the coastal town of Dar es Salaam. However, in the late 1950s, meat prices in Kenya had gone up so much, that cattle started to come from Tanzania to the north into Nairobi (Mittendorf & Wilson, 1961). Overseas exports were important as well, mainly from Kenya and Tanzania to the UK, Germany, and Mediterranean countries. Low quality animals from African producers, processed by Liebig's Company under supervision from KMC, were exported as corned beef. In the late 1950s, this amounted to 13,000 tons from Kenya, and almost 10,000 tons from Tanzania.

In Southern Africa by that time, the important industrial and cash crops producing areas in Zambia, Zimbabwe and South Africa had generated demand for huge numbers of animals for slaughter, as the labour force in the towns had grown rapidly during the colonial period with the development of mines and industry. In the late 1950s, 10,000 heads of cattle were exported annually from Botswana to Zimbabwe, 12,000 from Swaziland to South Africa, and a staggering 270,000 heads from Namibia to South Africa. Most of these animals came from settler ranches, not from African producers (Mittendorf & Wilson, 1961).

Trade and other policies

The overall picture of geographical patterns of cattle trade in the previous section points at a clear distinction between West Africa on the one hand and the so-called settler and mining colonies of East and Southern Africa on the other hand. In the former, the colonial *économie de traite* (trade economy) was based on export production by African peasants dominated by European trading firms, which, however, left relatively untouched indigenous food trade. In the latter, European settlers dominated, resulting in a different structure of production, giving rise to different trade policies. The indigenous livestock economy in East Africa was curtailed in access to both grazing areas and market outlets in favour of white settlers' ranches from the beginning of the 20th century. High quality rangeland was closed to African pastoralists and reserved for settlers. Strict quarantine regulations prevented the former from marketing their livestock on traditional and new markets. Overall policy remained unchanged in the colonial period. If changes did occur, it was merely to address problems which were created originally by disrupting indigenous trade and confining pastoralists to low quality areas. For example, during the 1930s overstocking of these African areas threatened, because loss of grazing areas to settlers, marketing restrictions and quarantine measures had caused overgrazing. This explains the subsequent encouragement of sales to emerging African consumer markets. By that time pastoralists' willingness to sell had increased too. In that respect, it is also worthwhile mentioning that during the First World War cattle sales to meet the military demand had still to be enforced upon pastoralists, not only because prices offered were low , but pastoralists' cash needs too. During the Second World War prices set were more favourable and pastoralists's cash need were higher too, which explains the striking supply response of the Maasai. Another example are the slaughtering and canning facilities built by Liebig's. British colonial preoccupation with the conservation of African grazing areas threatened by overstocking, resulted in the permanent skimming of cattle surpluses in areas considered to be overstocked. Liebig's facilities played an important role in this strategy enabling the surplus to be marketed, and exported, as corned beef.

In Southern Africa, where the comparative advantage of Tswana livestock production in Botswana was acknowledged in an early stage, marketing development oriented towards African producers was much more important. Bore-hole development facilitated grazing in heretofore unexploited areas. Large stock owners became the principal suppliers for the markets of the mining areas in neighbouring colonies. Although the first Marketing Board was set up in 1932 in South Africa, it was particularly in the final stages of colonial rule that state intervention in cattle production and trade became more pronounced. The major rationale behind these policies was veterinary improvement, and consequently, quarantine camps were widespread.

In contrast to West Africa, marketing boards were established, representing state involvement in marketing. The Cold Storage Commission (CSC) in South Africa, the Botswana Meat Commission (BMC) and the Kenya Meat Commission (KMC) have been influential state enterprises. Kenya may serve as an example. The KMC (5), established in 1950, was initially given a monopoly on virtually all stages of the livestock marketing process (purchase, slaughtering, wholesaling and export of meat). However, it could not enforce its monopoly for the country as a whole and for African slaughter stock in particular. As a result private trade occurred depending on fluctuations in demand. For the purpose of destocking, the African Livestock Marketing Organisation (ALMO) was set up in 1952. This organisation, which formed part of the Veterinary Department, was responsible for the purchase of African livestock at fixed, low prices, while part of it the had to be resold to KMC. However, ALMO experienced severe competition from private Maasai and Somali livestock traders, who operated at lower costs and could bypass quality controls and quarantines (Republic of Kenya, 1959). In the early 1960s, European settlers marketed their cattle without competition to KMC (Azarya, 1996, 61), but the whole trade in slaughter stock in African areas was in the hands of local traders (Republic of Kenya, 1959, 7). Generally, state intervention was also reflected in the organisation of cattle markets. In many cases, these were auction markets on which minimum prices were set by the authorities along the lines of a weight and grade system. The most extreme form of public control was found in the 1950s when the Uganda government attempted to enforce compulsory sales quotas on pastoral areas (Mittendorf & Wilson, 1961).

In West Africa the rapid increase of cattle exports from the Sahel to the coast at the beginning of the colonial era, indicate an African traders' response to new opportunities. They were able to do so because state control over indigenous food trade was minimal (Dijkstra, 1995). Furthermore, infrastructure development in general and the construction of railways in particular proved to be a major impetus to cattle trade and added to its southward expansion (6). Thus, although even in the early colonial days borders were established and import duties were levied (Norris, 1984), livestock trade, as trade in general, was stimulated rather than hampered. In contrast, the northward trans-Sahara trade by Tuareg had become increasingly under pressure and dwindled. Up until the 1920s the Tuareg resisted French rule and presented a threat to the small and ill-financed French military presence, to which the French responded by systematically undermining Tuareg economic and military power. Trade was more easily taxed than elsewhere because northbound routes were few and had to pass certain oases. After the nation-wide revolt against the French in 1916 a large number of Tuareg fled to Nigeria and as a consequence the trans-Sahara trade disrupted (Kerven, 1992, 77-78). In addition trans-Sahara trade felt increased competition from commodities imported through the coastal harbours.

Apart from customs and taxation, colonial policies in West Africa affected cattle trade in another indirect way, i.e. through veterinary measures. French colonial policy in West Africa was mainly oriented towards increasing meat production by traditional pastoralists (De Haan, 1997, 100). This *politique de la viande* (meat policy) put much effort into training veterinary personnel and setting up a network of veterinary posts where medicines were distributed, livestock was vaccinated and the health of slaughtered animals certified. French research was primarily concentrated on disease control, the production of vaccines and the breeding of trypano-tolerant cattle. In addition, new grazing areas were opened by the digging of wells, and trekking routes to market outlets were equipped with physical infrastructure like watering points, kraals and passages. British colonial policy in West Africa improved trekking routes as well. It further focused on veterinary measures among which were attempts to eradicate rinderpest and control tsetse fly. As a consequence, cattle populations increased.

Both colonial powers imposed taxes on cattle, which, resulted in increased sales over the colonial era. The *jangali* cattle tax which the British took over from the Hausa in Nigeria is the most well known. Since the colonial powers quickly recognised the economic importance of cross-border cattle trade, attempts were made to cream off some of its wealth. Whereas French taxation of the Sahara trade added to its downfall and diverted trade flows to the south, the British caravan toll on the southward trade did not result in a similar diversion (Kerven, 1992, 78-80). French policy in Niger to keep livestock trade within French territory and to increase tax revenues was implemented through the introduction of a customs barrier as well as market taxes. Both immediately resulted in cross-border trade, or better cattle smuggling to Nigeria, where cattle could be marketed tax free. The customs barrier proved too expensive and was soon abandoned (*ibid*.). Overall, the impact of French policy has not been such as to prevent an increase in livestock marketed towards coastal areas.

The only direct and meaningful trade involvement of a colonial power in West Africa has been the British attempt to control the exports of hides and skins. Adebayo (1992) has demonstrated the importance of hides and skins as export products for British colonial enterprises. African hides and skins supplied the European and later also the American leather industries. At the turn of the century, the Royal Niger Company (RNC) was given an exclusive monopoly on these exports. Alike developments in other export sectors, several local traders engaged as agents for the RNC at the expense of their previously independent businesses. The hides and skins exports constitute the only area in the cattle trade sector which the colonial powers sought to regulate and control to some extent. It was not before the late colonial era that British policy in Nigeria sought to persuade Fulani livestock owners to market more cattle in order to provide urban consumers in the South with a regular meat supply to improve the nutritional quality of their diet (Kerven, 1992). Contrary to this, French policy towards trade regulation became more relaxed around 1950.

Analysis

The previous sections clearly demonstrate that cross-border cattle trade in Sub-Saharan Africa experienced a tremendous impetus in the colonial era, because of growing demand for meat caused by increased incomes in those regions which became integrated in the colonial export economy from the turn of the century onwards. It has become clear that some pre-colonial patterns of livestock trade were extended, just as others were contracted or diverted. In West Africa, generally pre-colonial geographical patterns were boasted in volume but hardly changed in direction. Colonial trade policies contributed little to this expansion. General measures such as infrastructure development and the *pax colonial* certainly enabled the growth of cattle trade, but more as a side effect, because trade policies were primarily oriented towards exports for the world market. If measures were oriented directly to cattle trade they were restrictive and meant to keep produce within the colony and thus diverting it from an economically more optimal direction, such as in the case of the French policy in Niger. However, these measures proved to be only temporary and, given large scale smuggling, hardly effective.

In East Africa, on the contrary, the confinement of African pastoralists in native reserves and the imposition of quarantine regulations had much more influence at first sight. However, most flows continued to exist illegally through the act of private traders, such as the cross-border trade from Kenya to Tanzania. Due to the illegal character and the risks involved, marketing costs were probably higher than in a free trade situation. Later on, the direction of this cross-border trade reversed because of growing demand in the urban areas of Kenya. But again, trade was in the hands of private, African traders. Nevertheless, government interventions in physical infrastructure for cattle marketing, such as sales yards, dips and trekking routes, as well as in the organisation of auctions seemed to have been more important in East than in West-Africa.

In Southern Africa, finally, cross-border trade was boosted also, mainly as a consequence of rising demand in the newly emerging urban mining areas. Here, government intervention was mainly limited to the physical infrastructure of cattle marketing.

4. The post-colonial era

Geographical patterns

In post-colonial West Africa, direct state involvement in cattle trade was as limited as it had been in the colonial era. Trade itself remained primarily North-South orientated, since the major consumer areas were still located in the coastal zones. However, the growth of Sahelian cities such as Bamako, Ouagadougou and Niamey also attracted growing volumes of cattle. Furthermore, means of transportation and communication gradually modernised and movements by truck increasingly replaced movements by train and on the hoof. Today, a cattle trader in Pouytenga, the largest cattle market in Burkina Faso, is informed by telephone about market opportunities in Abidjan, the capital of Ivory Coast and can send a truckload of cattle the very same day, which will arrive after 36 hours.

The southward long distance trade experienced some important shifts over the years (see map 1). In the 1960s Ghana was the most important market for cross-border cattle trade and supply mainly originated from Mali, Burkina Faso and Nigeria. In the 1970s Ghana was replaced by Ivory Coast as the main outlet and in the 1980s Ivory Coast was relieved by Nigeria. At the end of the 1990s the original patterns more or less returned, with Mali and Burkina Faso mainly supplying Ghana and the Ivory Coast, and Nigeria being supplied by all neighbouring countries.

These shifts were to a large extent determined by three major factors. First, crucial events in the structuring of trade patterns were the extensive droughts that occurred in the early seventies and eighties. These droughts eventually caused a major geo-spatial shift of pastoral production systems, i.e. a migratory drift southwards of substantial numbers of herds. A lot of cattle ended up in one of the coastal countries which consequently saw an increase in their rate of self-sufficiency as well as in the magnitude of internal trade. Second, substantial restructuring of trade flows occurred in reaction to diverging economic development and growth rates in the region's leading economies, Ghana, Ivory Coast and Nigeria. Third, by 1975, after the upheaval caused by the first period of drought, coastal countries began to turn to non-African suppliers of frozen meat on the world market, a policy aimed at providing a regular and stable supply to urban consumers. These beef imports, at first from Argentina and Uruguay , came from the middle of the 1980s onwards from the European Union, in the form of substantial imports of subsidised beef. However, it has been demonstrated that these imports were only a minor cause for declining cross-border cattle trade. The economic recession as well as inefficiencies in regional marketing channels contributed just as much (Quarles van Ufford & Klaasse Bos, 1996).

Two examples may illustrate the combined effect of these three factors on cross-border cattle trade creation and diversion. At independence, the Ghanaian economy was among the most thriving in the sub-region. As a consequence, the country attracted substantial flows of cattle from various origins. Even from north-eastern Nigeria cattle reached Accra. In 1960, some 20,000 heads of cattle were transported from Maidiguri/Kano to Lagos by train and then by truck to Accra (Mittendorf & Wilson, 1961). At the same time, about 74,000 heads of cattle were imported from Mali and Burkina Faso (*ibid*.). These geographical patterns changed, however, when in the early seventies the Ghanaian economy collapsed and the Nigerian economy experienced significant growth due to increasing oil revenues. Cattle from as far as Mauritania was brought to the booming Lagos and Ibadan consumer centres (7). The Ivorian economy experienced a similar growth. Consequently, cattle exports from Burkina Faso to the Ivory Coast went up from 49% of total burkinabe exports in the 1960s to 72% in the 1970s. During the same period, Ghana's share in these total exports had declined to 19% (Josserand, 1990). In addition to these economic trends, currency and exchange rate disparities were equally followed by restructuring of trade flows. For instance, the fluctuations on the black currency market of the Nigerian naira compared with the relatively stable CFA franc of the francophone West African countries, has frequently determined changes in the volume of livestock trade towards Nigeria. Whereas the latter had always been a major consumer market for cattle from its neighbouring countries, the deteriorating exchange rate of the naira led in the beginning of the 1990s to a temporarily inversion of cross-border trade. Nigerian cattle was observed on consumer markets in Cameroon.

Another example could be observed when the CFA franc underwent a sudden devaluation of 50% in 1994. As a consequence, unfavourable terms of trade with Ghana, where the cedi had been progressively devaluated because of the Structural Adjustment Programme of the 1980s, were implicitly annulled. Analyzing the impact on cross-border cattle trade one year after the devaluation, Quarles van Ufford & Klaasse Bos (1996, 14) pointed at increased numbers of livestock exported from Sahelian countries to both Ghana (up 380% to a total of aroud 50,000 heads annually) and Ivory Coast (up 15% to a total of 105,000 heads a year). This rise was partly due to declining imports of frozen beef. In Ivory Coast, these imports halted completely because of doubled prices after the devaluation and a reduction of European Union export subsidies on its frozen meat. This reduction caused a drop of frozen meat import in Ghana too. As a consequence of the increased exports, slaughterhouses in the Sahel experienced a relative scarcity in supply until a few months after the devaluation. In Benin, trade flows were modified comparably and the first few months following the devaluation witnessed a steep increase in exports towards Nigeria. When the naira further devaluated, however, trade was reduced to its usual level.

Only on rare occasions have trade flows been diverted or contracted by political tensions. For instance, as a result of the political conflict between Senegal and Mauritania in 1989, the geographical patterns as well as the actors involved changed significantly (McCorkle, 1995, 56): Senegalese imports from Mauritania were partly replaced by imports from Mali. Today, the old cross-border cattle trade has largely been restored and Mauritanian traders have returned to the scene. Similarly, after many Fulani had been expelled from Ghana following the so-called *Operation Cow Leg* in 1988, internal geographical patterns were restructured since the availability of animals had decreased in some regions.

Alike the post-colonial situation in West Africa, geographical patterns in most East and Southern African countries did not change much in the first years after independence. Trade flows, being basically dependent on relatively slowly changing demand and supply, continued to be directed from the drylands to the main consumer areas in the various countries. In Southern Africa, Namibia continued to rely on South Africa for its exports, which declined in the early 1960s due to drought, but then picked up from 170,000 heads of cattle to 250,000 heads in the late 1960s to 500,000 heads in the early 1970s. In the late 1970s, exports went down again and than fluctuated between 130,000 and 200,000 heads throughout the 1980s and 1990s (FAO Statistics, 1990-1997). About half of those cattle are exported to South Africa, most of the rest is exported as meat to the European Union, on favourable 'Lome' conditions. The bulk of these animals come from commercial ranches in the southern part of Namibia, ranches which traditionally have been financially and fiscally supported by successive Namibian colonial governments, and which still enjoy that support. Their highly controlled produce is accepted by the European Union and the three main meat processing corporations in South Africa (Christian Aid, 1997).

Exports from Namibia and Botswana to South Africa have diminished because of the political upheavals and the subsequent general disruption of trade and industry in South Africa. Moreover, cheap meat imports from the European Union boosted to 55,000 tons in 1997 (Christian Aid 1997). As a consequence cross-border trade of cattle and meat from Botswana to South Africa dropped from 50,000 heads of cattle and 30,000 tons of processed meat to a few thousand heads of cattle and about 20,000 tons (FAO Statistics, 1990-1997).

The situation in East Africa has been more complex, which is for the larger part due to the various wars and economic upheavals in the region. Cross-border cattle trade has been seriously affected because of this. Nevertheless the overall picture remained stable, with Kenya as the main consumer market and Somalia and Tanzania as its main, foreign, suppliers (map 2). An interesting example is Somalia, where in recent years wars have seriously affected the population and the economy. Cross-border cattle trade, mostly to Kenya, was high during the drought periods of the early 1970s (around 70,000 heads) and 1980s (150,000 heads), but since then have gone down to about 20,000 heads in 1990. Finally, due to the civil war and a complete avoidance by Kenyan traders of Somalia and the neighbouring region of Kenya, cross-border trade stopped completely in 1992 (Zaal, 1997).

Official figures on cross-border cattle trade from Sudan and Kenya to Uganda have shown a steady decline over the years, with peaks during drought years. In the late 1980s this trade became negligible, although it turned up recently in an illicit form. In addition, following the ups and downs of civil war and conciliation, exports from Sudan to Saudi-Arabia in the 1980s are presently replaced by exports from Ethiopia. However, this mainly concerns sheep and goats.

Officially, cattle trade from Tanzania to Kenya has been small since the early 1990s. However, fieldwork by Zaal (1997) proved that thousands of heads of cattle crossed the border unofficially, attracted by the high prices in nearby Nairobi.

In all, although underestimated in official statistics, cross-border cattle trade in East Africa is relatively insignificant as compared to internal flows. Both in Kenya and in Tanzania roughly two million heads of cattle were traded annually in the 1990s. The same goes for Namibia and Botswana where internal trade and consumption exceed exports (FAO Statistics, 1990-1997).

Trade and other policies

The early post-colonial policies of the West African Francophone countries continued to pay attention to veterinary issues. In addition, the focus gradually changed towards the development of ranching schemes and the allocation of grazing rights. From the eighties onwards, the approach to livestock development shifted via large cattle projects to pastoral groups and natural resource management (De Haan 1997). The cattle marketing policies of the newly independent states, on which we will elaborate below, remained remarkably stable over an extended period of time.

Government intervention in cattle marketing differed substantially from its intervention in other agricultural sectors. In addition to the colonial marketing boards for commodities such as coffee, cocoa and cotton, many countries established cereal marketing boards just after independence in order to guarantee national food security, a task governments did not want to entrust to the private sector. Several of these boards received considerable financial support from western donors (Lele & Christiansen, 1989). According to Dijkstra, the new boards refrained from trading perishables because of the risky nature of the operations, that required a high degree of flexibility, and the limited availability of cold storage and processing facilities (Dijkstra, 1995, 29). Nevertheless, some Sahelian governments, however small and unsuccessful their effort, took some initiatives in this domain. Their policies were initially geared to the construction of slaughterhouses, cold store facilities and the encouragement of meat marketing from Sahelian towards the coastal countries (8). To accomplish these objectives, organisations such as ONERA (Burkina Faso), SODEPRA (Ivory Coast), SONARAN (Niger) and SODERA (Benin), were established in the 1970s (9). These organisations made some efforts to control particular stages of the marketing channel. Besides the construction and management of slaughterhouses they engaged for instance in milk production, and attempted to set consumer prices and regulate cattle markets according to a weight and grade system. However, they never attempted to monopolise all stages of the marketing process. Private traders have been operating parallel to these marketing boards and sometimes even benefited when the board requested them to purchase cattle for state ranches.

The Meat Marketing Board in Ghana provides an example. The Ghanaian government set up this board just after independence in 1960. It invested heavily in a canning plant and slaughterhouse facilities at the border with Burkina Faso where cattle was directly bought from burkinabe traders. Domestic marketing was carried out by the private sector (Sullivan, 1984). The MMB also possessed a monopoly on extra-African meat imports and determined official consumer prices, which were frequently circumvented by the private sector. However, the scale of its activities steadily declined, like many of its sub-regional counterparts, due to poor management practices. Today, the MMB has mainly a distribution function, purchasing meat from private butchers and selling it subsequently through a few MMB cold stores.

Finally, the case of Niger's Marketing Board SONARAN is worth mentioning. In the early eighties, SONARAN (*Société Nationale des Ressources Animales*) engaged in official livestock and meat trade with one of the few private industrial meat canning companies in West Africa, the Nigerian Food Company (NFC). On the basis of yearly contracts, a significant financial turn-over was achieved. However, it was the government of Niger itself who was responsible for SONARAN's failure to fulfil its contract obligations, since it established regional export quotas in 1986 in order to re-establish cattle herds (Soulé, 1993). At the end of the eighties, SONARAN's relations with the NFC suffered increasingly from the deteriorating exchange rate of the naira and operations were suspended accordingly.

Post-colonial policies in Southern and East Africa were very much a continuation of colonial policies as marketing boards continued to play a role. However, in the course of the 1970s and 1980s, quite a number of these boards ran into financial problems. A notable exception was the Botswana Meat Commission, described by Abbott (1987, 165) as a highly professional undertaking and an outstanding model of cattle marketing in a difficult environment. Operating in a competitive international market the BMC, supported by the government investments for example in cordon fences, provided an attractive outlet for Botswana's larger cattle owners to South Africa and the European Union.

In other countries livestock and meat marketing boards were either temporarily dissolved and repeatedly reinstated, or finally privatised with the introduction of economic structural adjustment. In Kenya, for example, KMC continued to buy cattle from ranches in limited numbers, while ALMO was responsible for purchasing cattle from pastoral areas. With the Kenya Livestock Development Project in 1968, a new department took over from ALMO, the Livestock Marketing Department (LMD). Providing holding grounds, stock routes, price information and various other services, it became a service oriented organisation, and no longer bought cattle from producers, a task which proved too costly. Like KMC, high running costs have pushed ALMO out of the market. KMC, like other livestock related services (10), extended its clientele to include the African small scale producers (Heyer, Maitha & Senga, 1976). However, as private slaughterhouses had slowly taken over the market in the late 1970s, the two enormous slaughterhouses owned by KMC deteriorated, and were finally closed in 1992.

In Tanzania, a similar situation occurred. The *Ujamaa* philosophy exerted an even greater pressure on the implementation of government policies to control cattle trade. However, the livestock sector was not adequately controlled by the livestock and meat marketing boards due to their unfavourable fixed prices. In addition, cattle producers made only a token contribution of animals to co-operative farms and to state controlled dairy units. As a consequence the cattle sector knew a fairly high degree of competition between official and parallel markets, the Tanzania Livestock Marketing Company (TLMC) holding market shares of 20-40 % in the 1970s and even less in the 1980s (De Wilde, 1984).

General economic policies explain the sudden change in cross-border cattle trade between Tanzania and Kenya in 1993. While economic restructuring in Tanzania slowly strengthened the Tanzania shilling in the early 1990, high inflation, a loss of donor support due to the slow implementation of the structural adjustment programme, and political unrest slowly depreciated the Kenyan shilling. Late 1993 the flow of cattle suddenly changed direction. Instead of going northwards from Tanzania to Nairobi, cattle was traded from Kenya towards Tanzania (Zaal, 1997). After March/April, when the economic situation in Kenya returned to normal, the Kenyan shilling appreciated and cross-border cattle trade turned again northwards.

Analysis

Although the patterns of cattle trade remained roughly the same, the structure of the marketing channel underwent some modifications once the colonial era came to an end. Government interventions increased as development strategies of that period supposed the state to plan and to take the lead in economic development. Governments accordingly tried to strengthen their grip on internal and cross-border cattle trade by founding state controlled marketing boards. Particularly in West Africa, these organisations are hardly worth being labelled as such. They mainly concentrated on the processing part of the *filière* (marketing channel) and they soon became marginal because of their poor functioning. In East Africa, livestock marketing boards dated already from the late colonial period, when they controlled a larger portion of the cattle marketed. They were mainly oriented towards the marketing of cattle from large (settler) producers. After independence they had to extend their services to new regions with small African producers, which caused a sharp and disproportionate increase in running costs. This eventually contributed to their demise and withdrawal from marketing in the early 1990s.

Though livestock trade policies had only a minor influence on trade patterns, economic policies in general were more important. A number of changes that occurred throughout Sub-Saharan Africa, both in geographical patterns of trade and in numbers of animals traded as well, appeared to be linked with local fluctuations in demand. These fluctuations either discouraged, as was the case in Ghana in the 1970s and in Nigeria and South Africa in the 1980s, or stimulated cross-border cattle trade, as was the case in Ivory Coast in the 1970s, and could be attributed to national economic policies on the one hand and to more general economic circumstances related to the country's position on the world market, on the other. Policies related to currency exchange rates have especially influenced geographical patterns and volumes of cross-border cattle trade as has been illustrated by the temporary reversal of flows between Tanzania and Kenya in 1993/94, and the changes in trade following the CFA franc devaluation in early 1994. The former only corresponds to a temporary modification of a familiar geographical pattern. The latter seems to have at least partially restored a colonial trade flow to Ghana, clearly linked with this country's successful economic recovery. The question whether trade was created or diverted in this particular case is more difficult to answer. Declining imports of European Union's frozen meat in Ivory Coast as a result of higher import prices, increased demand for Sahelian meat and resulted in creation of cross-border trade. However, the temporary shortage from which slaughterhouses in the Sahel suffered at the same time, leads to the hypothesis that trade was at least partially diverted from local to more remote markets across the border. In addition to the CFA franc devaluation, the reduction of subsidies by the European Union, under pressure of European public opinion, on its exports of frozen meat to West Africa contributed to declining imports.

Notwithstanding the above, general economic policies were not the only cause of post-colonial changes in cross-border cattle trade. In the whole of Sub-Saharan Africa, political tensions, wars and civil wars on the one hand and recurrent droughts on the other have been more influential factors. Political tension and war seem to be the only events that can really stop traders from transporting and selling cattle in places where prices are profitable. In East and Southern Africa, droughts have caused major drops in supply of cattle and consumption of meat. However, after every major drought, a steady growth to new highs followed. In West Africa, if not a permanent than at least a long lasting migratory drift of pastoralists caused a shift in the location of cattle production areas. In the post-colonial era many pastoralists have moved from the Sahel to the northern regions of the West African coastal countries. Consequently, trade patterns were shortened and cross-border cattle trade became less significant.

5. Conclusions

In this paper we have demonstrated that cattle trade in Sub-Saharan Africa, already existing in pre-colonial times and received an important impetus as the colonial economy developed. Population growth, specialisation and increasing incomes in export production areas caused a growing demand for meat in many parts of the continent. Several of the ancient trade routes were gradually diverted towards these emerging areas and new cross-border cattle trade was created. At the same time, the volume of cattle trade expanded substantially. Thus, the foundations for most patterns of cross-border cattle trade at present were laid in the colonial era. Drastic and long-term changes have rarely occurred since then. It appeared that only events such as civil wars, as the one in Somalia, and droughts, as those in West Africa in the 1970s and 1980s, have had long-term impacts on cattle trade patterns. The question remains how structural these changes are. For instance, the case of West Africa demonstrated how, as a consequence of two extensive drought periods, the pastoral production system was dislocated and its centre of gravity moved southwards. This had a long lasting impact on cattle trade, which from then on increasingly originated from new areas were pastoral producers had settled. Because part of these new areas are located within the coastal countries, traditionally the most important consumer markets, this change had a contracting effect on cross-border cattle trade, which was however neutralised by a general increase in demand. Other droughts however had short-term consequences only, when the effect of herds being decimated and rebuilt resulted in sharp but temporary fluctuations in cross-border cattle trade.

We may also conclude that, in contrast to these long-term shifts, the geographical patterns of cross-border cattle trade were much less or only temporarily affected by government policies. Throughout the colonial and post-colonial era's, cross-border cattle trade remained an African, private traders' affair. Still, a number of cases were identified in which general economic policies, causing currency fluctuations and temporary changes in demand, contributed to the diversion and to a lesser extent to the creation and contraction of cattle trade flows, as illustrated by the shift of demand in West Africa, from Ghana to Ivory Coast and then to Nigeria. Admittedly, these cases made it clear that general economic circumstances such as the country's position on the world market mattered as well. Effects of currency fluctuations were clearly shown in the examples of the CFA franc devaluation in 1994 and the temporarily reversed cross-border trade between Kenya and Tanzania in 1993/94.

It was also demonstrated that private cattle traders have responded extremely well to short term opportunities or *rentes frontalières* (border rents) as Grégoire & Labazée (1993, 10) have called them. With respect to government interventions which were directly targeted at cross-border cattle trade, such as import or export taxes and trade restrictions, the responsiveness of cattle livestock traders has been remarkable too. Especially with regard to West Africa we have noticed that traders organise themselves in multiple cross-border trade networks, resulting in a continuation of most trade flows, albeit illicit and unregistered. Traders in general do not seem to be bound by a legal exchange sphere, demarcated by import prohibitions, regulations and taxes. On the contrary, their actual exchange sphere extends largely beyond it, taking into account every opportunity, in terms of optimal outlet, that is provided. Furthermore, the ever existing possibility to transport cattle on the hoof across the borders, which is still often made use of in cases of illicit trade, gives traders a head start on government control.

With respect to direct state intervention in cattle trade, however, considerable differences were observed between the West Africa on the one hand and the East and Southern Africa on the other. In West Africa, governments only marginally intervened in cattle trade, and most unsuccessful efforts were geared towards the meat processing part of the marketing channel. In East and Southern Africa, though, the influence of governments was not restricted to meat processing alone, since policies attempted to organise cattle markets, to facilitate the marketing of cattle from large-scale ranches and to control the sale of cattle by indigenous livestock producers in order to reduce grazing pressure. These interventions did not so much change the geographical patterns of trade but rather affected its structure. As a result of embargoes and quarantine regulations, at least part of the growing demand for meat was supplied by settlers and thus partially hampered trade from pastoral areas. The analysis showed that both in East and in Southern African marketing boards played a much more important role in these interventions than in West Africa.

In this chapter we have extended the analysis of changes in trade flows as a consequence of government policies, known primarily from food trade and trade in export products, to cross-border trade in cattle. We have tried to relate geographical patterns of this type of trade to trade policies and other government policies. To analyse these patterns we have made use of the concepts of trade creation, trade diversion and trade contraction. We have concluded that not government policies but (civil) wars and droughts affect cross-border trade the most. War and civil wars obstruct the movement of trade, even if demand and supply remain unchanged, and result in contraction. Droughts reduce supply, after a temporary increase by distress selling, and contract cattle trade too. Rising economic prosperity, generally as a result of a combination of world market-related developments and government policies, leads to cross-border trade creation and diversion. Declining economic prosperity leads to the opposite.

Finally, the impact of government policies is apparent when the value of currencies is concerned. Relative changes in currency values gradually create demand and cross-border cattle trade as a consequence. A devaluation will abruptly contract or divert this trade.

6. Epilogue

In the continuous debate on the sustainable management of African rangelands, on the possible risk of exceeding carrying capacities, and on the supposed need for destocking, the creation of marketing outlets is often indicated as a solution to overstocking by those researchers who think African pastoralists over-exploit their rangelands. The advocates of this solution thus assume that a large surplus of cattle, ready to be tapped, exists in the production areas. This supply would be able to satisfy effective demand if this demand would rise or (marketing) costs would diminish. However, in our analysis of the last two decades, we have not encountered spectacular supply increases which were more than temporary. The cattle trading system with its African private traders, is too effective in bringing together demand and supply for a untapped surplus to develop. Consequently, we can not support the hypotheses that large surpluses of livestock are kept by pastoralists because of lack of opportunities to sell.

Notes:

(1)
Amsterdam Research Institute for Global Issues and Development Studies (AGIDS), Faculty of Environmental Sciences, University of Amsterdam, Nieuwe Prinsengracht 130, 1018 VZ, Amsterdam, The Netherlands.

(2)
Benin has always had a liberal import policy. Thus, all kinds of goods are imported through its harbour and subsequently re-exported fraudulently to neighbouring countries (Nigeria in particular) where import policies are more restrictive. Igué & Soulé (1992) have eloquently described this the `warehouse' function of Cotonou.

(3)
[1]The provision of military garrisons was an important contributing factor in increasing trade. Notably during the first and second World Wars, this demand induced specific regulatory policies in order to satisfy the meat provision of the various garrisons spread over West Africa. In an accurate account of the war-time policies of the French authorities in Dahomey (Benin), d'Almeida Topor (1995, 227-235) shows how the latter tried to grasp commercial movements of livestock to fulfil not only local demands (population and garrisons) but also demand in France and its other colonies, notably the troops established in Cameroon. Again, local traders themselves organized the supplies. After 1917, livestock trade again reverted to `pre-war' patterns.

(4)
Assuming a slaughter weight of 150 kg per animal, 1 metric ton of carcass is the equivalent of 6.7 animals. The 125,000 animals exported from French West Africainto Nigeria would yield 18,750 tons in cold dressed weight. Carcasses from European animals were 250 to 265 kg (Mittendorf & Wilson, 1961, 12).

(5)
The Kenya Meat Commission succeeded the Meat Marketing Board which had been established just after the Second World War.

(6)
Initially, the Nigerian railways had provided a new opportunity for Hausa traders who, after 1910, entered into groundnut exports, supplying the European export companies. Afterwards, the railways became increasingly used for livestock. At the eve of independence, some 160,000 cattle were railed yearly from the northern territories towards Ibadan and Lagos (Mittendorf & Wilson, 1961).

(7)
A similar sequence of increased oil revenues and growth in livestock imports occurred in the early eighties when the Shagari regime maintained favourable currency exchange rates. However, when Shagari was succeeded by Mohamed Buhari in 1984, the latter immediately introduced severe monetary measures such as a drastic devaluation of the naira and restrictions on franc CFA circulation. These measures slowed down livestock imports very rapidly.

(8)
With respect to meat processing and exports, Chad and Niger exported considerable quantities of meat towards Central and West African countries respectively, although these operations, which started in the fifties, came to an end in the early seventies.

(9)
Note that some specific organisations were founded too, in order to regulate the hides and skins export sector.

(10)

Such as the national agricultural research station at Kiboko, the Veterinary Department, the Agricultural Finance Corporation (AFC) and the Livestock Marketing Department of the Ministry of Agriculture and Livestock Development (LMD)

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