

**POLICY ALTERNATIVES FOR LIVESTOCK DEVELOPMENT IN MONGOLIA
(PALD)**

A Research and Training Project

PALD Research Report No. 10

**MONGOLIAN PASTORALISM ON TREK TOWARDS THE MARKET:
The marketing of livestock and livestock products during economic liberalisation**

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PREFACE AND ACKNOWLEDGEMENTS

On the initiative of the international collaborative research project PALD (Policy Alternatives for Livestock Development in Mongolia), the author of this research report spent one year in Mongolia - between June 1993 and June 1994 - carrying out field research on livestock marketing, as a UN Volunteer Specialist assigned to the Institute of Agricultural Economics (IAE) in Zaisan, Ulaanbaatar. Although he was assigned originally to 'The Livestock Marketing Project' of the IAE, this project was replaced by the broader 'Project on Developing Market Relations in Agriculture'. The role of the author has remained that of being a fellow researcher and adviser on livestock marketing issues and research, with his primary output being this research report.

Livestock marketing was identified early on by PALD as a key constraint on Mongolian pastoral development, and filling the research gap in this area has been seen as an important priority for some time. This is particularly so, because market improvements have often been identified as the first step in the reform of the pastoral sector, upon which the success of most other reforms depends (PALD 1993; Mearns 1993; Potanski and Szykiewicz 1993; Cullis 1993; Edström 1993, 1993b). Unfortunately, market reform in agriculture has been rather slow, creating problems for other agricultural reforms - particularly ones involving increased cost recovery and/or shifting production input costs on to pastoral producers. These delays are maybe not unnatural, given the lack of previous operational research in this specific area and the general lack of clear and consistent advice on how to liberalise agricultural markets in a country like Mongolia. It is hoped that this PALD Research Report will provide a fuller analysis of current constraints (as well as mistakes) in marketing reforms than has been available to date, and that this may enable policy-makers, donor agencies and NGOs as well as other researchers to identify creative solutions, new forms of assistance and new areas of related research. It is worth noting that, based on the policy implications arising out of this report, a PALD Policy Options Paper, aimed at advising Mongolian policy-makers on appropriate policy adjustments, has also been written in consultation with Mongolian government officials, researchers, representatives of relevant trade associations and interest groups, incorporating the views and insights of all involved (PALD 1994).

As part of this one-year research project, a consultant livestock marketing expert, Carol Kerven, was hired to advise on appropriate research methodologies and explore areas of particular concern for livestock marketing research in Mongolia. Her findings and recommendations, which were worked out with the collaboration of the author as well as S. Badarch and N. Ganzorigt of the (then) Livestock Marketing Project, were submitted in a report to PALD at an early stage (Kerven, 1993) and several hypotheses proposed are explored, analysed and tested in this report. A central part of the approach adopted in this research effort has been to dovetail activities with research carried out in other related areas. For example, during the one-year assignment the author participated in a broad socio-economic survey undertaken for the Asian Development Bank for a proposed Feed Improvement Project, and carried out by PALD in the summer of 1993 (PALD 1993), as well as a UNDP co-ordinated Poverty Alleviation Strategy Mission in the spring of 1994, together with Dr Jeremy Swift, Louise Cooper and N. Ganzorigt of PALD (UNDP 1994).

Aside from Carol Kerven, several other people also deserve acknowledgements for their assistance and/or contributions to this work. They include:

- the author's Mongolian counterpart and co-researcher, N. Ganzorig;
- the author's supervisor and co-operating researcher in IAE, A. Enkhmngalan;
- other co-operating researchers at IAE, including S. Badarch and Dr G. Bizya;
- a close colleague and co-operating expatriate researcher, Louise Cooper (a fellow PALD/UNV Specialist carrying out a related sister project on wealth differentiation and emerging forms of social assistance in the pastoral economy);
- Roy Behnke, B. Erdenebaatar, Guy Templer, Polly Payne and all the other participants in the 1993 socio-economic survey for the proposed ADB Livestock Feed Improvement Project (PALD 1993);
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SOURCES OF DATA AND RESEARCH METHODOLOGIES EMPLOYED

The overarching methodology adopted in this research can perhaps best be described as an interdisciplinary approach, moving from a holistic and general analysis of the pastoral economy towards using more specific analytical tools applied to particular problems, opportunistically - but purposely - mixing research methodologies. The range of research methodologies adopted for different tasks were:

- 1 **collection of secondary data** and information from central sources and published articles and reports;
- 2 employing **Rapid Rural Appraisal (RRA)** techniques - more or less participatory at different stages - including seasonal calendars, wealth ranking, marketing decision-making trees, animal life-cycle diagrams, preference scoring and a (to my knowledge) new technique, which I here call 'weighted factor scoring', used for valuing animals by age and sex, for domestic needs and for market exchange, as well as for comparing alternative market channels by products, for different benefits;
- 3 **semi-structured key informant interviews** with livestock marketing operators (and officials of companies and state trading organisations as well as with administration officials at local, provincial and municipal levels), at different levels and nodal points amongst current marketing structures - tracing various market channels for different products;
- 4 **small-scale herder household marketing surveys** for numerical analysis/estimation of specific aspects of herder marketing behaviour, incomes and market participation;
- 5 **survey questionnaire** of 36 *sum* governors meeting in Ulaanbaatar, April 1994;
- 6 **collection of unpublished primary survey data** generated by the IAE, on food prices and food supply channels amongst urban households.

Field research took place over a period of 11 months, from the beginning of July 1993 until May 1994. During the early stages of field work, in July and August 1993, work was carried out in conjunction with a larger team effort for the socio-economic survey for the Asian Development Bank, with the additional input of Carol Kerven to advise on the aim and methods of this study. Statistical surveys of herder household marketing were carried out with the assistance of staff of the Project on Developing Market Relations in Agriculture of the IAE, as well as with Louise Cooper to identify specific relationships between climatic risk wealth differentiation and marketing (in Bayan Khongor). The central core of the study team, however, has been limited to the author and N. Ganzorigt, who took an active part in all trips and interviews, providing assistance with organisation, negotiation, interpretation, as well as contributing to analysis and survey design. The location and timing of specific field research trips are displayed in Map 1.

Gender issues in marketing are purposely not discussed in this report for several reasons: (i) a parallel research project on wealth differentiation and emerging forms of social assistance, which addresses gender issues in the pastoral economy, was carried out by a colleague (Cooper 1993; see also Cooper and Narangerel 1992); (ii) at the producer level, the household appears to be the most useful unit of analysis for marketing decisions in the Mongolian setting; (iii) this research was carried out predominantly by men, making satisfactory gender interviews and analyses difficult; and (iv) a useful analysis of a gender perspective on marketing, combining the findings

GLOSSARY OF MONGOLIAN TERMS

<i>Aimag</i>	'Province': administrative unit, of which there are 18 in Mongolia, not including the four municipalities, Ulaanbaatar, Darkhan, Erdenet and Choir
<i>Airag</i>	Fermented mare's milk (the alcoholic strength of weak beer)
<i>Arol</i>	Dried curd
<i>Bag</i>	Sub-district level administrative unit of some 100 to 150 households, usually comprising the territory of the former production brigades
<i>Dzud</i>	Heavy snowfall (often in the spring) preventing animals from grazing
<i>Gav</i>	A <i>khot ail</i> whose members are bound together with close family ties (localised usage)
<i>Ger</i>	Herder household's dwelling
<i>Idish</i>	Household supply of meat for the winter (whether from own animals, from gifts or purchased in state shops or on the open market)
<i>Khorshoo</i>	A voluntary-small scale producer co-operative (a legally recognised unit)
<i>Khot ail</i>	Post- and pre-collectivisation herder encampments (2-7 <i>Ger</i>)
<i>Negdel</i>	Pastoral collective, during the socialist period, sub-divided into brigades
<i>Neg golikhyyan</i>	A number of households living within/along the same river valley
<i>Neg nutgikhyyan</i>	A number of households living within the same recognised geographical local territory
<i>Neg usnikhyyan</i>	A number of households depending on the same water source
<i>Sum</i>	'District': administrative unit which usually coincides with the territory of a former <i>negdel</i>
<i>Suur</i>	Lowest level pastoral production team, during collectivisation (2-3 <i>Ger</i>)
<i>Tarak</i>	Yoghurt
<i>Tsagan Sar</i>	The 'white month', the Mongolian New Year in February
<i>Urum</i>	Boiled cream

ACRONYMS

ACE	The Mongolian Agricultural Commodities Exchange
CC	Consumer Co-operative trading organisations
CMEA	Council for Mutual Economic Assistance, the former East Block trade coalition
GOM	The Government of Mongolia
IAE	The Institute of Agricultural Economics
MOFA	The Ministry of Food and Agriculture
MOH	The Ministry of Health
MPR	The Mongolian People's Republic (the former name for Mongolia)
MTI	The Ministry of Trade and Industry
PALD	Policy Alternatives for Livestock Development in Mongolia project
PHA	The Private Herders' Association (of Mongolia)
PRA & RRA	Participatory Rural Appraisal and Rapid Rural Appraisal
SSO	State Statistical Office (of Mongolia)
UB	Ulaanbaatar (or Ulan Bator, as it is sometimes spelt in English)
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNV	United Nations Volunteer(s)

TECHNICAL TERMS

- Arbitrage** The activity of buying goods in one market and re-selling them in another, in order to profit from price differences between markets. This process tends to equalise prices and increase competitiveness.
- Co-operative** A voluntary economic association of producers, processors and/or traders, which is based on democratic representation of its members' economic interests, and which functions on the basis of non-exploitative co-operation between its members. Note that the Mongolian Consumer Co-operative organisations are not considered to be such organisations, but rather parastatal marketing agencies.
- Monopoly** A situation in which one enterprise, or one organisation (e.g. the state), controls all opportunities for buying and selling, without competition from alternative market operators.
- Oligopoly** A situation in which a limited number of market participants collectively have the ability to regulate market prices, either by agreeing to fix prices or as a result of different agencies dominating the trade in different geographical areas and/or different product lines. This is sometimes referred to as 'monopolistic competition'.
- Parastatal** An enterprise which is controlled by, or strongly linked with, the public administration, either because the government owns a majority, or full, share of the agency, or because the agency is restricted by legal duties towards the state, or is indebted to the administration as a result of receiving credit or other inputs in a privileged fashion.

1 INTRODUCTION

During the current process of economic reform in Mongolia, agricultural production (livestock and crop production) and the distribution of agricultural produce from producers to consumers are both being restructured, as part of a larger effort to turn the former socialised and centrally planned economy into one based on the principles of market forces. The basic means of production in pastoral livestock production have largely been passed into private hands (either directly to individual herding households or to agricultural shareholding companies). Agricultural land remains in the ownership of the state, but the new land law anticipates the privatisation of crop land and possibly the leasing of some pasture land to herders (PALD 1993).

The marketing of livestock and livestock products used to be the responsibility of the state. Today, many of the state supply organisations have been either fully privatised or turned into state-controlled shareholding companies. Nevertheless, levels of marketing of livestock are still declining by all indications, and the government is actively seeking new ways of further reforming marketing, so as to improve the flow of goods, secure food supplies to consumers, improve rural incomes and enhance the chances of a successful transition to an efficient and growing market economy.

This research report, which is based on one year of field research in collaboration with Mongolian and foreign experts (as described in the Preface and Acknowledgements above), seeks to describe current difficulties in the country's livestock marketing system, as well as to identify areas of further reform, which would make the long trek towards a market-based system for the domestic livestock economy less painful and more likely to contribute towards pulling the country out of its current economic difficulties. Chapter 2 paints a broad background to livestock marketing in Mongolia and the current reforms; Chapter 3 outlines the main features of the current marketing situation, as well as its constraints; Chapter 4 identifies some external factors, related to domestic demand and international trade, which impact on marketing possibilities and prospects for livestock producers; Chapter 5 examines primary field data gathered at the producer level, describing herders' responses to current constraints in their external marketing environment. The final chapter summarises the main conclusions emerging from the study and lists a number of areas for further reform as well as further research.

2 BACKGROUND TO LIVESTOCK MARKETING DEVELOPMENT IN MONGOLIA

In order to place the discussion in context, it will first be necessary to consider some specific aspects of Mongolian pastoralism; the country's general situation with respect to post-socialist reforms; the geographic outline of livestock production; the broad outlines of the old supply and distribution system under collectivisation and some recent changes; the sequence of major reforms to date; the government's current objectives and planned strategies in further reforming the agricultural sector; as well as current trends in livestock offtake and marketing through the established official channels.

2.1 PASTORALISM AND THE ECONOMIC TRANSITION

The pastoral livestock sector occupies a crucial position in the Mongolian economy in terms of its contribution to food security, rural incomes, employment, raw materials for domestic industry and export earnings. At the end of 1992, the agricultural sector employed roughly two out of every five Mongols of working age (39 per cent of the labour force), and contributed one quarter of the total national income, with livestock production (predominantly from traditional nomadic extensive pastoralism) accounting for some 70 per cent of net agricultural output.

Nomadic pastoralism in Mongolia has traditionally been characterised by small groups of pastoral households co-operating in the herding of a mixture of four to five species of animals - horses, cattle, sheep and goats, as well as (sometimes) camels. With an abundance of pasture land in relation to people and livestock, pasture management has tended to be characterised by relatively long-distance seasonal migrations between summer, autumn, winter and spring pastures (the distances and number of seasonal moves varying slightly by region, and generally being larger and more frequent in more marginal regions such as the Southern Gobi Desert or the Western Altai mountains).

As a result of the sharp climatic fluctuations, the production and exchange of livestock and livestock products have also always been strongly seasonal. The slaughter season falls in the late autumn and early winter for at least four reasons: (i) animals are heaviest at the end of the warmer and wetter seasons, when pasture is abundant and rich; (ii) after the mating seasons (which generally fall in the summer and early autumn) is the best time to select surplus animals for offtake (males surplus to breeding requirements, animals less likely to survive the harsh winter and barren females); (iii) milk products are not as abundant in the cold season as during the summer and autumn, so more meat is required to obtain the necessary proteins for a (relatively) balanced diet throughout the winter; and (iv) the sub-zero temperatures which prevail between November and late March facilitate the freezing and storage of meat throughout the winter.

Although always based primarily on traditional extensive transhumant pastoralist herding techniques, livestock production was reorganised and levels of mechanisation increased during the period of collectivisation, between the 1950s and the 1980s. Herders were organised into collectives (*negdel*), made up of brigades which consisted of, and controlled, many small teams (*suur*), consisting of a few herding households in charge of a specified number of the collectively owned livestock plus a small number of private animals, primarily for home consumption needs. At a superficial level, the *suur* functioned in similar ways to the earlier traditional encampments, *khot ail* (which have now re-emerged in most parts of the country), mainly in terms of labour sharing. However, the *suur* and brigades of the collectives tended to specialise more in particular species and breeds of animals than did the traditional *khot ail*, and the *negdel* provided substantial

assistance with fodder supply, transport, veterinary services, education and health services. The marketing of animals was almost exclusively carried out by the collectives in collaboration with, and in accordance with the plans of, various state supply and distribution organisations.

Today Mongolia's general level of incomes compares with that of many developing countries, but having formed part of the former East Block and operated within the framework of the Council for Mutual Economic Assistance (CMEA) trade arrangements, the country's economic problems also resemble those of many other former socialist countries in Eastern Europe and elsewhere, despite its unusually large dependence on extensive pastoralism (Wadekin 1990). Mongolia has been described as the world's second most strongly centralised economy during the collective period, after the former USSR, which provided it with extensive material and technical assistance throughout this period. Although embarking on a programme of gradually increased flexibility in the system after 1986, the country's slow reform process was overwhelmed by the drastic changes in Eastern Europe and the former USSR in 1989, which added new impetus to the reform process and precipitated rather sweeping market reforms, which began to be introduced from approximately 1990. However, the massive reduction in assistance from Russia and the collapse of the CMEA trade arrangements (which were generally very favourable for Mongolia), together with the massive shocks to incomes and welfare resulting from the short-term macroeconomic stabilisation programme, left the economy in serious crisis with a substantial increase in poverty and vulnerability to food insecurity (UNDP 1994). It is hoped that the country is now in a better position to exploit its comparative advantages and compete on international markets with exports such as livestock products. For export-led growth to pull the economy out of the current crisis, several constraints need to be urgently resolved, however. Aside from fundamental developments in the financial sector as well as legal and fiscal frameworks for trade generally, there is an urgent need for accelerated reform and development in the agricultural marketing sector, especially in livestock marketing, which would enhance economic growth consistent with the reduction of poverty, and rural poverty in particular.

Whilst lessons from livestock marketing (Kerven 1992) and the commercialisation of pastoralism in other parts of the developing world (Behnke 1983) are of great significance to Mongolia today, transforming a heavily planned socialist pastoral economy into one relying on free market forces has few precedents. Furthermore, whilst economic theory provides reliable tools to predict the effects of economic reforms under conditions of well functioning markets, there are fewer prescriptions which allow us confidently to predict events where fundamental institutions of, for example, finance have yet to be fully transformed from a socialist mode to one consistent with a market economy (Braverman and Guasch 1990).

The unique problem posed in developing livestock marketing in Mongolia today is how to turn a strongly centralised socialist economy and society into a competitive market economy and, at the same time, develop a highly traditional semi-nomadic mode of production and way of life. There are few precedents.

2.2 CHANGES IN THE SOCIAL ORGANISATION OF PASTORAL PRODUCTION

The most fundamental change in the social organisation of production in Mongolia's pastoral economy has been the abolition of the former collectives and the privatisation of livestock. Under collectivisation and up until 1990 a ceiling of 50 animals per household was imposed on private herds in most of the country, and 75 animals in the Gobi. These limits were raised to 75 and 100 and then abolished altogether in March 1990, and a major programme of privatisation of collective animals was followed during 1991 and 1992 (Danagro 1993). This programme

allowed separate collectives considerable freedom in determining their own strategy for privatising their assets, which encouraged a plurality of new types of ownership as well as some scope for misappropriation of assets by various officials.

Out of 255 former collectives, 158 had broken up into some 320 limited and co-operative companies and 40 had dissolved into purely private herding units (households) by mid-1992, whilst 57 remained as collectives (Mearns 1993). About 275 companies were estimated to still exist by 1994, though few owned considerable numbers of animals and no collectives remained (UNDP 1994). Already by the end of 1993, the significance of livestock companies had changed drastically, as *ex negdel* and state farm companies together owned only 6 per cent of the total livestock in Mongolia, according to statistics from the State Statistical Office. The rise in private animal ownership is shown in Table 2.1 below.

Table 2.1: Livestock ownership in Mongolia

	1980	1985	1989	1990	1991	1992	1993
State	6	8	8	9	8		
Collectives	76	70	64	59	37		
Non-private						30	10
Private	18	22	28	32	55	70	90

Note: Figures refer to December livestock counts, for each year. Non-private livestock (from 1992) refers to livestock owned by state organisations, such as state farms or the army, as well as livestock owned by ex-collective livestock companies, whereas private livestock refers to animals owned directly by individuals. Figures disaggregated by state organisations and livestock companies, after 1992, are not easily available from official publications at present (but agricultural companies - both private and state-controlled - owned some 6 per cent of livestock, and other organisations approximately 4 per cent, at the end of 1993).

Source: SSO (1987, 1992, 1993).

The privatisation process took place in two major phases. In the first (the 'small' privatisation, in 1991) approximately 30 per cent of collectives' assets (mainly livestock) were privatised and the collectives themselves turned into companies, retaining more or less the same functions as before. Livestock remaining in company ownership were leased out to members, who were obliged to meet quotas of produce to be sold through the state marketing system at set prices and were allowed to keep or sell any surplus on private markets. In the second wave of privatisation (the 'big' privatisation, during 1992) many companies broke up altogether - a process which continued in 1993. This has been due both to political direction and to dissatisfaction on the part of herders about price inflation in consumer goods without similar rises in the state-set prices of livestock produce (Potanski and Szykiewicz 1993).

Although the social organisation of livestock production takes place at several levels (in the household, the *khot ail* encampment, livestock companies, and occasionally *khoshoo* voluntary co-operatives), the household remains the basic building block in these structures. Households tend to group into small encampments, *khot ail*, in order to pool labour and achieve economies of

scale. The nature and extent of co-operation within *khot ail* varies by region; they tend to be larger and more integrated in the more productive regions of the central and northern ecological zones (PALD 1993). A more detailed description of different types of *khot ail*, as identified through field work, is given in Appendix 1.

In addition to those grouped in *khot ail*, a certain number of herders are operating individually. In one local area of Altan Bulag (Tuv *aimag*), 20 out of 120 herders (16 per cent) are herding independently on summer pasture, and the corresponding figure for one site in Kharkhorin *sum* is at least 14 out of 135 herders (10 per cent or more - as a number of households could not be placed by informants interviewed). In Altan Bulag no less than half the independent households were reported to live in and around the *sum* centre, suggesting that many of these are newcomers to herding or absentee herd owners. In Kharkhorin it seems likely that a large number of the unknown households were newcomers from the *sum* centre or absentee herd owners living in the centre. On the whole, absentee herd ownership was found to be mainly a family affair, where relatives of families in a *khot ail* would keep their animals with their parents', or siblings', animals and often spend part of the summer with the *khot ail* at periods of peak labour demand. Older herders often register animals in their children's names, which is partly an inter-generational transfer of wealth (pre-inheritance), although the animals remain in the care of the parents. This also affords the family unit lower levels of livestock taxation, since each member of a household is allowed the equivalent of two large animals free of tax.

When it comes to marketing livestock and livestock products, at the producer level the household and the family is undeniably the fundamental unit for co-operation and decision-making today, though friends and relatives in *sum* centres (or even further afield) are often called upon to provide assistance. It is also noteworthy that by far the largest number of *khoshoo* co-operatives encountered during field work were based on networks of family ties and close friends, and often between family members living in different parts of a *sum* as well as *sum* centre residents co-operating with their relations in the countryside.

2.3 LIVESTOCK MARKETING IN THE RECENT PAST

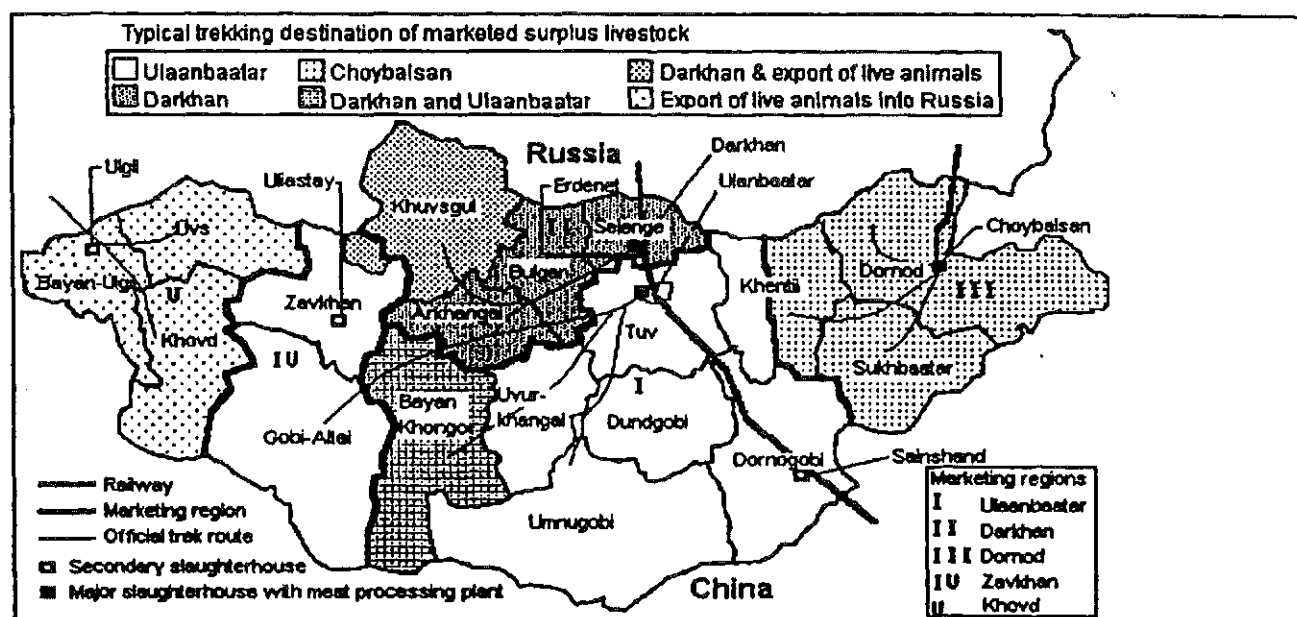
During the collective period, the distribution and pricing of agricultural and other products were the responsibility of the state, via specific departments and supply boards. Because of the stability of export and import prices within the former CMEA trade arrangements, it was possible to keep inflation under strict control by fixing prices. Demand - or rather, requirements - for products were met by local, regional and central planners estimating production capacities and requirements and issuing State Procurement Orders to production units, such as *negdel* and state farms. Producers were required to furnish their respective quotas to the state through the state supply system under the former Department for Trade and Procurement, which would receive animals and livestock products and be responsible for their transport to state slaughterhouses and processing factories.

In the case of meat, state orders were specified in terms of tonnes live weight, and most animals were procured in the early summer (when they weigh least), trekked to urban centres and fattened during the long trek (taking up to five months), then sold as carcass meat at fixed dead weight prices to consumers and other state organisations.

The Department of Trade and Procurement was responsible for the local procurement of animals and their trekking and delivery to urban slaughterhouses. The Ministry of Nature and the Environment, on the other hand, was responsible for supervising of the state-designated trek routes, and the Ministry of Food and Agriculture was charged with ensuring fodder supplies for

the trekked animals at points near their final destinations, if necessary. However, under normal conditions, rich summer and autumn pastures along the trek routes were often sufficient, and most fodder was normally stored for use in the lean lambing season in the spring, or stored by the State Emergency Fodder Fund for use in natural calamities. Map 2 shows how animals were trekked vast distances overland, on state-designated trekking routes.

Map 2: Traditional destinations of trekked livestock in Mongolia



Meat was also processed and exported to Russia by rail (from Ulaanbaatar, Darkhan or Choybalsan) as well as exported live, on foot, from *aimag* in the extreme West of the country (and Khuvsgul in the North), as shown in Map 2. The Western *aimag* are too far from the capital for livestock to be trekked there, and this region had no major slaughterhouse with meat-processing plant nor any rail connection with the outside world. Although livestock caravans were often organised to China by local community groups before collectivisation, the trade in live animals to China ceased completely during the communist period and remains illegal today, as a result of Chinese import regulations.

Table 2.2: Per capita average annual food production, by marketing region, 1986-92

Marketing region	Meat produced (kg live)	Meat marketed (kg live)	Milk produced (litres)	Butter produced (kg)	Crops grown (kg)	Potatoes grown (kg)	Vegetables (kg)
Ulaanbaatar	80.6	66.1	44.8	0.9	191.4	42.6	19.8
Darkhan	102.9	74.8	74.3	2.1	807.3	364.5	58.2
Dornod	284.1	216.9	73.9	2.1	84.4	82.7	31.6
Zavkhan	293.7	168.6	49.7	8.2	72.1	5.5	27.5
Khovd	194.6	104.5	38.2	1.2	67.8	89.3	50.0

Source: The Livestock Marketing Project, Institute of Agricultural Economics, 1993.

With the planned economy's stress on balancing material resources, there were practical reasons for the directions of livestock flows shown in Map 2. Since, as shown in Table 2.2, the Zavkhan marketing region, for example, has a relative abundance of livestock production per capita compared with, for example, the Ulaanbaatar region, most of its surplus was destined for the capital, whereas livestock in the north, the west and the east remained within their regions, with surplus production exported directly to Russia.

Animals are still moved along the state-designated trek routes, though certain changes in the organisation of trekking are currently taking place. The old state supply and distribution system has been disbanded and responsibilities for supplying meat to urban consumers have been transferred to new organisations, and sometimes old organisations in new clothes, as well as to the private sector. Most established marketing organisations now subcontract the transport to private trekkers. Though the volume of state trading in livestock has shrunk considerably, it remains very difficult for private traders to export animals or meat, so it is to be expected that some changes in these patterns may emerge, depending on factors such as demand, marketing reform policies and international trade policies and regulations. Most privately marketed meat is carried - dead or alive - in lorries, vans or even in the luggage compartments or on the roofs of ordinary cars.

2.4 CURRENT PROFILE OF THE LIVESTOCK MARKETING SECTOR

Out of the old system of procurement and distribution, a number of new marketing organisations have been created - some through privatisation and some through reorganisation, as mentioned above. Other types of market participant have emerged from private initiative in response to new opportunities created through market liberalisation. The most important of the current actors are:

- 1 livestock companies (former *negdel* and state farms);
- 2 consumer co-operatives (a network of recently privatised parastatal companies);
- 3 the Agricultural Commodities Exchange (created specifically to improve marketing);
- 4 buying agents of urban processing industries and slaughterhouses;
- 5 private traders, shareholder trading companies, personally registered enterprises and unregistered traders;
- 6 small-scale co-operatives, *khoshoo*.

2.4.1 Livestock Companies

One of the most commonly available marketing outlets in rural areas is the local livestock company, the former *negdel*. In most cases these have few animals, but now concentrate primarily on livestock marketing and selling production services (such as transport, storage and fodder) to herders. It is fairly common for these companies to secure contracts with urban industries and buyers, as well as directly with foreign importers, but some of their trade normally involves centralised state procurement orders. The management of the companies tend to be the leaders of the old collective, with close links to leaders of the local public administration (also ex-*negdel* managers). This close relationship often means that livestock companies are used by local officials to obtain centralised state procurement supplies at lower prices than those offered by

more competitive businesses and entrepreneurs. This is particularly so in the case of products like meat and cashmere, and price differentials between these and other parastatal trading companies are often very small, or even negligible. However, although they do not necessarily offer producers very competitive prices, the livestock companies are at least reliable by virtue of their constant presence on the ground. Many herders feel loyalty towards the company, and more pragmatic herders regard it as prudent to stay on good terms with the company, since it is often the only supplier of transport and other production inputs at local level. Former state farm companies are often similar to former *negdel* in many respects, although their links with the public administration tend to be even closer.

Box 2.1: The consumer co-operative marketing organisations

The consumer co-operatives make up a national network of co-ops from *sum*-level consumer co-ops, with a number of agents trading with (and living amongst) herders in the rural areas, to a national level consumer co-operative corporation and a Central Union Executive Committee of Consumer Co-operatives in Ulaanbaatar. Between the centre and the periphery there are *aimag*-level consumer co-operative associations as well as central consumer co-operative companies (often overlapping in personnel). Unlike its *sum*-level counterparts, the *aimag*-level central consumer co-operative company deals in meat and live animals, as well as non-meat livestock products. The role of the *aimag*-level associations is to secure contracts with foreign partners in China and Russia and to share these out amongst their members (*sum*-level co-ops and central *aimag* co-op companies). They also hand out contracts with state-owned (or state-controlled) institutions, such as the Makhimpex (for meat) or the Nosimpex (for wool), which the co-operatives have a duty to fulfil. As part of its historical inheritance the network of consumer co-operatives is charged with the duty of complying with state-ordered contracts at given prices as well as supplying consumer goods, such as flour, rice and sugar, to rural dwellers, also at fixed prices. Although the state offers a fixed price with the supply order, it appears that this price is slightly negotiable, but at the end of the day, the local administration will often only provide petrol and credit once the orders for hospitals and police, for example, have been met. Over and above these state orders, the CCs are free to deal with any other buyers and partners, with or without the assistance of *aimag*- and central-level co-operative organisations.

Although the CCs were provided with substantial capital assets (lorries, offices, canteens, shops, etc.) and very low-interest loans during the privatisation, many co-ops are facing financial difficulties, because of having to carry out loss-making transactions and because of losing ground to more efficient market operators offering better prices (e.g. in the summer of 1993 the Uvurkhangai *aimag* central co-op dealt at only 20 per cent of its former level, according to its Director). However, being shareholding companies, they are expected to recover their losses in unprofitable areas from the profits from other activities. As a set of marketing institutions, they have yet to resolve some conflicts between the more altruistic objectives of their constitutional charter and the profit interests of their shareholding investors.

Source: Based on a number of field interviews, some carried out in conjunction with Carol Kerven (Kerven 1993). A version of this was also reproduced for PALD's Socio-economic Survey for ADB (PALD 1993).

2.4.2 Consumer Co-operatives

Branches of the old Department for Trade and Procurement were privatised (though often only partially) and set up as shareholders companies called Consumer Co-operatives (CC, henceforth), with considerable assistance from the state in terms of assets and subsidised credit. Although legally private companies, they are theoretically obliged to comply with state orders at fixed prices, though there are no explicit penalties for not meeting these orders. Box 2.1 provides a general description of the CC agencies, as well as some of their current problems.

2.4.3 The Agricultural Commodities Exchange (ACE)

The Agricultural Commodities Exchange was established to fill the vacuum created by the dissolution of earlier distribution and supply systems, and by the difficulties faced by various CC agencies. The ACE consists of a national exchange in Ulaanbaatar and a network of *aimag* exchanges as well as local brokers and brokers' firms in various *sum*. Like the Consumer Co-operatives, the parastatal ACE agencies are supposed to fulfil state orders for certain goods at prices fixed by the administration (set centrally or by city or *aimag* administrations). ACE organisations and brokers operate differently in different areas. In some places they are state-controlled or even fully state-owned; in others they operate as private companies (even if linked to the administration through the exchange network). However, they seldom have vehicles to travel into the countryside or sufficient cash to buy goods. Herders far from *sum* centres are rarely able to rely on these brokers. Box 2.2 provides a brief description of a local *sum* broker company in the Khangai region.

Box 2.2: Problems of a local broker company, connected to the ACE

The broker company in Tariat *sum*, Arkhangai, worked under the *aimag* ACE broker company, from which it received money and goods, and to which it gave 3 per cent of its profits. It employed three people, and the Director had previously been the head of the *sum* administration. The company wanted to buy all types of livestock products from herders in all *bag*, and was in theory supposed to organise auctions. However, it had severe cash-flow problems and no vehicles or trading experience. In 1993 it was operating only in Booroljuut *bag*, where it had made agreements with over 100 households. It had contracts to sell meat to Makhimpex and wool to a Chinese company. By June 1993, it had given herders 40 per cent of the value of their contracts in consumer goods in advance payment for cashmere. However, the company was having serious problems in getting sufficient cash from the bank to buy meat, and it had also had to postpone delivery of the wool from July to August. It had to hire a vehicle to go and collect products directly from the herders. By June 1993, only purchase of livestock or livestock products in Tsagan-nur *bag* had been in January 1992, when it had bought one ton of frozen yoghurt from six households.

Source: Payne and Erdenebaatar 1993.

2.4.4 Buying Agents of Urban Processing Industries

Aside from the CCs, ACE agents and livestock companies, other parastatal trading companies include several urban processing industries, such as Makhimpex (a Ulaanbaatar-based slaughter, meat processing and trading corporation), other urban-based slaughtering and meat trading

companies, the Gobi company (cashmere), and a few skin and leather processing companies. Some of these are planned to be privatised in the future, however, and many others with severe financial problems may well end up on the privatisation list. As a result of recent changes in the marketing situation in the country, most urban processing industries now have to send out their own buying agents into the countryside. Although many industries conclude contracts with livestock companies, CCs or ACE brokers and also purchase some raw materials in open urban markets, most processing companies also have to send out buyers to buy directly from herders. These buyers tend to be highly knowledgeable about their products and select higher quality goods for purchase, with the result that they tend to pay higher unit prices for livestock products than less discriminating buyers. Buying agents for meat can rarely be as selective, however, since they are usually constrained by very low fixed live weight prices. Even in the latter case, however, the parastatal slaughterhouses have, in certain areas, had to raise their prices in order to secure any purchases at all.

Box 2.3: A local small-scale private Mongol marketing enterprise

Mrs A in Kharkhorin *sum* centre has a university degree in consumer product quality control and used to be a member of the local Consumer Co-operative. She declined an offer to become Director of the CC in favour of running her own private enterprise, which specialises in livestock product marketing and wool processing, as well as cross-border trade. The enterprise currently employs four staff in the town, aside from the Director herself: one driver plus three women sorting and packing wool (one of whom is also the accountant).

This private business mainly collects, packages and markets wool and some cashmere. The wool is collected from two rural areas in the *sum* and two areas in the neighbouring *aimag*, Arkhangai, where Mrs A has close friends (employed as her local representatives) who help her with organising the logistics and timing of wool collection from local herders at their *ger*. These local connections are important, since she has to rent vehicles for collection as well as for all other transport in marketing. She prefers to pay herders for their wool in barter, rather than cash, since the former is more profitable (doubling the number of transactions and reducing transport costs by carrying out marketing activities in two directions during one visit). She buys the wool at a value of 60 Tugrik/kg and sells herders consumer goods, such as flour or carpets (including saddle carpets) from Erdenet carpet factory. The wool is then sorted and packed by her three female employees and driven to Erdenet for sale to the town's carpet factory, at a value of 120 Tugrik/kg, in exchange for carpets. Aside from wool, *airag* (bought at 40 Tugrik/lit and sold at 150 Tugrik/lit) and meat are sometimes also brought to Erdenet for sale in the open market.

Cash proceeds from sales are used to buy up consumer goods in Erdenet and Ulaanbaatar, which are then resold in Kharkhorin on return, or to herders whilst buying up wool or cashmere. Mark-ups between buying and selling prices are fairly high, but approximately 40 per cent of this income goes on transport, salaries and other operating costs. Furthermore, there are significant risks in private marketing and sometimes things go badly wrong, as in one instance when the lorry was stuck in mud for two days *en route* to Erdenet, and when 24,000 Tugrik worth of carcass meat was spoilt and had to be thrown to the dogs.

Source: Interview carried out jointly with Carol Kerven, in Kharkhorin, June 1993 (see also Kerven 1993).

Box 2.4: Two unregistered travelling traders - independent, small-scale, competitive

Ms X is a young college graduate from Erdenet town. When we met her she ran a very small trading operation, buying sheep skins at a street market in Erdenet, for 600 to 800 Tugrik apiece, in order to resell them on the open market in Ulaanbaatar, at between 1,000 and 1,200 Tugrik apiece. In order to break even and cover the costs of the return train journey, she would need to bring in at least 30 skins, which was her minimum target. If she could manage more she would make a small profit (maximum 600 Tugrik - or \$1.50 - per extra skin). It was no great business, but she had no overhead expenses (save a small fee for her spot at the open markets) nor any taxes to pay, and at least this *arbitrage* in skins gave her a small income as well as free trips to the capital. X is not alone in this business; literally hundreds of small-time traders (often part-time housewives or unemployed youth) engage in informal trade of this kind. The morning we spoke, no less than five other young skin buyers were competing along the same stretch of about 50 yards, offering similar prices for skins. Most of the sellers of skins at this market were local private unregistered traders, travelling into the countryside, or herders coming into town to sell their own produce.

Mr Y is a Kazakh scientist from Bayan-Ulgii who is formally employed with a scientific institute in Ulaanbaatar. Most of his time, he admits, he spends as a guide for foreigners travelling into the remote western parts of Mongolia, or as a travelling trader working with his brother, who owns his own lorry. This is not unusual, since public sector salaries in Mongolia are currently much too low to support a family (even with two salaries). In the last three years, Mr Y has made 18 trips with his brother and his lorry; two trips were to Ulan Ude in Russia and several to Erlian, on the border with China. They usually carry cashmere, wool, sheep skins, horse hides, aluminium or cast iron when they go abroad, but they also buy meat and skins in Ulgii and take them to Ulaanbaatar (1,678 km, or approx. 1,000 miles) to sell in the open market. They buy their supplies directly from *ger* in their home district, where Y's brother collects from herders (usually friends or relatives) against the promise of payment in kind on his return from the marketing trip. The last time they went to China, they bartered the goods in China and brought Chinese goods back to pay off their suppliers. Extra goods were used to buy up more products from other herders.

On their last trip Y, his brother and four partners bought six tonnes of carcass meat valued at 120 Tugrik/kg in Ulgii in October 1993, which they took to Ulaanbaatar and sold for about 240 Tugrik/kg. Transport costs were about 41,000 Tugrik, and the profits had to be shared between the partners, which left each one with about 136,000 Tugrik (or \$US 340). However, two tonnes of meat had not been sold, as the market price was falling in response to traders increasing supplies in time for the Mongolian New Year. Y and his partners were planning to keep the meat stored (in sub-zero temperatures in their garages, balconies and back yards) until after the celebrations, when they predicted there would be a shortage in the market and prices would rise. Although profits can be made from meat marketing within the country, Y was more interested in exporting meat to Russia, since prices in Ulan Ude are around 800 Tugrik/kg, compared with 240 in Ulaanbaatar.

Source: Interviews carried out in Erdenet, October 1993, and Ulaanbaatar, January 1994.

2.4.5 Private Companies, Personal Businesses and Unregistered Traders

The strongest competition for parastatal livestock marketing channels comes from the private trading sector, where a myriad of private companies (sometimes completely unrelated to agriculture or livestock), personally registered business enterprises (such as shop-keepers), and independent unregistered free traders (usually mobile and trading over long distances) all compete at various levels of operation and professionalism. Box 2.3 describes a locally registered marketing business in Uvurkhangai.

The recent lifting of restrictions on private trade and the liberalisation of exports of livestock products have meant that private trade - particularly export and import - has become the fastest growing sector of the Mongolian economy. However, constraints on private trading - such as business taxes reported to be around 40 per cent of enterprises' incomes on average, or interest rates (around 25 per cent per month in mid-1993), inflated by massive government lending to parastatals at subsidised and negative real interest rates - are preventing this sector from contributing its full potential. As a result of the restrictive environment for private enterprise, there are strong incentives for individuals to carry out business on an informal basis. Box 2.4 gives two examples of informal unregistered entrepreneurs.

Although private individuals are allowed to import and export, for example, non-meat livestock products (except cashmere), they find it more difficult to get credit (even at commercial bank rates) and often turn to unofficial moneylenders to borrow investment finance. They also find it virtually impossible to obtain export licences for meat without bribery.

2.4.6 Khorshoo

A final type of marketing agency is the small-scale voluntary co-operative, called *khoshoo*. Although fairly rare at local level, those *khoshoo* which exist are usually involved with livestock product marketing as well as the procurement of consumer goods or (sometimes) pooling labour for hay making. Like voluntary agricultural producer co-operatives in other parts of the world, *khoshoo* appear to have been formed out of frustration with agricultural (or, here, livestock) marketing as well as with markets for inputs like hay, fodder, and transport. Box 2.5 provides an example of a local *khoshoo* in central Mongolia.

2.5 SEQUENCE AND OBJECTIVES OF LIVESTOCK MARKETING REFORMS

In March 1993 the government set out a general policy framework for reform of the agricultural sector (GOM 1993), which outlines the objectives of the reforms as well as the intended ways of implementing them, though the latter remain vague. In general, however, the policy encourages competition in production and marketing, and scales down the involvement of the state in economic activities, with the exception of areas where substantial state investments are deemed difficult to privatise equitably, and where unprofitable state enterprises are regarded as too important to discontinue (particularly dairy farms and some crop farms).

Aside from the privatisation of livestock, the two most significant steps towards liberalisation in livestock marketing have undoubtedly been the legalisation of private enterprise in the livestock and livestock product trade (particularly liberalisation of exports), together with the official freeing of meat and other livestock product prices at farm-gate level, as well as at retail level for the private sector. Public sector agencies and parastatal, partially privatised, marketing enterprises do not, however, enjoy a free price regime, since they tend to be under the control of municipal or *aimag* government price commissions, which still fix official prices for meat and

milk. As a consequence, parastatal marketing agencies have been losing ground to new private traders, since the latter can offer producers more attractive prices. On the other hand, parastatal agencies enjoy certain privileges and other forms of institutional support not available to independent private operators or enterprises.

Box 2.5: Profile of a *sum*-level *khoshoo* in Tuv *aimag*

Altan Ovoor *khoshoo* in Altan Bulag *sum*, Tuv *aimag*, was established in March 1993 and consists of 11 *sum* centre households and 11 herding households from a nearby *bag*, all connected through family links. One member of the *khoshoo* acquired the mill building with an office during privatisation of the former collective, and the *khoshoo* acquired the lorry out of the remaining *negdel* assets. Households with livestock contributed three tonnes of meat (live weight), which was sold to the local broker connected to the ACE, who paid 70 Tugrik/kg (as compared with the livestock company's purchase price of 65 Tugrik/kg). Furthermore, the *khoshoo* received a subsidised loan of 795,000 Tugrik, at 10 per cent per month interest, on a two-year repayment basis. The main aims of the *khoshoo* are to ensure self-sufficiency amongst members in (i) hay making, (ii) flour supplies and (iii) livestock marketing.

The *khoshoo* is governed by a five-member elected council, which meets once a month and appoints the manager and the accountant, who are salaried employees. Six other *khoshoo* members are also full-time employees and work as drivers or in the mill. All the members have private livestock and there is no common herd of animals. Households in the countryside look after the animals of their relatives in the *sum* centre, whilst the latter travel to the countryside in the autumn to make enough hay for the animals of all 22 families. The hay is valued and accounted for, though some assistance may be given to member families in need. The *khoshoo* buys wheat from a nearby former state farm and produces three to four tonnes of flour (plus about one tonne of straw fodder) per month, which is sold to members and *sum* centre residents at the same price. The *khoshoo* was planning to collect and store livestock products, as well as find buyers, in 1994. The modalities and logistics for this remained to be worked out by the members and the management, however. The main problem was the high cost of transport, as well as access to fuel; the *khoshoo* had an allocation of only 200 litres worth of petrol coupons, at the state price, for 1994. Aside from the benefits of labour sharing (in livestock keeping and hay making) and access to flour, the main economic benefit of membership was a share in the end-of-year profits of the co-operative, as well as improved marketing prospects in the future. The main strength of the *khoshoo* was seen to be its base around a close-knit network of family relations.

Source: Interview carried out with *khoshoo* manager in Altan Bulag *sum*, Tuv *aimag*, in August 1993.

Export policy has changed, with the liberalisation of exports of livestock products such as skins, hides, and wool. There are now no export restrictions for most products. Cashmere exports were also liberalised, but a total ban on the export of raw cashmere was imposed in April 1994, as a result of pressure from the urban cashmere processing industry, in which the state has a strong interest. With the collapse of the CMEA trade arrangements, and of demand in Russia, and the devaluation of the Tugrik, exports of non-meat livestock products have shifted towards the Chinese market where the majority of these products are bartered for products like flour, rice and sugar. However, importing meat from Mongolia remains illegal in China.

Box 2.6: Sequence of reforms in livestock marketing

1990	Restrictions on private sector agricultural production begin to be relaxed.
20 March	Mongolian State <i>Ikh Hural</i> (SIH) decrees to abolish limits to privately owned livestock.
1 June	Mongolian Council of Ministers decrees to increase (fixed) procurement prices for different non-meat livestock products (by 10 to 70 per cent).
28 August	Council of Ministers (CM) decrees to establish urban livestock markets.
23 November	CM decrees to increase state procurement prices for private herders, for meat, milk and wool, by 50 per cent. Compulsory herder household meat procurement quotas are established at 24 kg (live weight)/cattle, 4 kg/sheep and 3 kg/goats.
14 December	Government (GOM) decrees to prohibit private export of wool, cashmere, skins and hides, by anyone except specialised state organisations.
1991	1991 saw the first wave of privatisation of livestock, which was more rapid in the more productive regions of the Centre, the North and the East.
15 January	GOM decree (No 20) to devalue the Tugrik and raise prices by a factor of two (with slight variations for different products).
1 February	Ulaanbaatar Slaughterhouse and meat processing plant (formerly known as 'Makhcombinat') is established as a parastatal company with rights to import and export, and is renamed 'Makhimpex'.
2 March	GOM decree (No 74) to expand the responsibilities of the Consumer Co-operatives, to include responsibilities for livestock product procurement.
22 March	GOM decree (No 101) to establish a Mongolian Stock Exchange.
13 May	GOM decree (No 150) to change the regime for distribution of petrol, and allow <i>sum</i> , <i>aimag</i> and municipal administrations to distribute petrol previously reserved for the state organisation 'Nefconcern'.
15 July	GOM decree (No 212) to establish the Agricultural Commodities Exchange (ACE), to be responsible for agricultural product procurement.
15 July	GOM decree (No 213) to raise the price of petrol by a factor of four.
15 July	GOM decrees (No 224) to establish municipal Price Commissions.
23 August	GOM decree (No 252) to liberalise trade in agricultural products (i.e. to legalise private sector trading in agricultural products).
20 September	GOM decree (No 268) to set livestock procurement quotas for <i>aimag</i> centre and municipal (city) administrations.
11 October	GOM decree (No 292) to make ACE responsible for centralised state procurement of agricultural products (not for local public sector procurement).
1992	Second wave of privatisation of collectives' livestock and assets.
22 February	GOM decree (No 34) to establish minimum prices for livestock procurement (with cattle and sheep at 10 Tg/kg live weight, and goats at 6.5 Tg/kg), as well as increase state procurement prices for livestock products by factors of 1.25 to 2.45.
22 February	GOM decree (No 35) to liberalise food prices, except rationed food (which included meat, milk, butter, flour, bread and vodka).
1993	1993 saw dissolution of many livestock shareholders' companies, fully privatising livestock to independent herding families.
26 March	GOM decree (No 43) to transfer the responsibility for livestock central state procurement from ACE to the parastatal meat processing companies; Makhimpex (UB), Khishig (Darkhan), Dornod (Choybalsan) and Monhaa Co (UB).
May 1993	Introduction of a floating, fully convertible, exchange rate.
May 1993	Liberalisation of meat prices for independent entrepreneurs.
August 1993	Ending of the meat ration voucher system (practically dead anyway).
1994	Moves towards trade protectionism and reaffirmation of price fixing.
1 April	GOM decrees to prohibit the export of raw cashmere.
April 1994	Fixed ceiling retail meat prices (below market prices) are reconfirmed and updated, for publicly controlled marketing organisations and slaughterhouses.

Source: Compiled and translated from GOM Government Information Bulletins.

Export of live animals and meat remains very difficult for private operators, with the exception of some companies with state connections which can negotiate an export licence from the Ministry of Trade and Industry. In addition, the export of intestines is reserved as a state monopoly, despite the stated intention of encouraging competition in marketing and promoting the export of animal products (GOM 1993). It appears that the government intends to retain control over the export of live animals and meat to Russia, since these are usually bartered for petroleum, a sensitive and scarce commodity.

A detailed sequence of significant reforms in livestock marketing is outlined in Box 2.6.

A fundamental reform affecting livestock marketing has been the repeated devaluation of the Tugrik since the beginning of 1991, and the eventual introduction of a floating exchange rate in 1993. This is, of course, central to the market mechanism, valuing domestic produce at international opportunity cost and increasing the earning potential of agricultural producers and exporters. However, the sequencing of the reforms and the delays in price liberalisation in the agricultural sector have heavily discriminated against herders and other agricultural producers. Policy recommendations to liberalise farm-gate prices, from as early as 1991 and before, have gone unheeded until very recently, and even now price liberalisation can only be described as partial (Milne *et al.* 1991; UNDP 1994).

The failure to liberalise agricultural prices at a sufficiently early stage has also caused serious problems for the process of privatisation of livestock and other agricultural assets. The establishment of shareholders' agricultural livestock companies, as a way of privatising the lumpy assets of *negdels* in an equitable way (intended to allow all herders access to these large assets), has met with serious difficulties. The companies were not able to generate profits under a regime of state-fixed prices for their produce, while having to pay international prices for imported inputs (which used to be obtained from other CMEA members on favourable terms, but now have to be purchased under open competition from other buyers on the world market). Furthermore, individual herders are now expected to purchase production inputs, like fodder or transport, from agricultural companies or other market operators, and veterinary services have begun to charge fees for services provided, although the latter are still low (PALD 1993). The slow development of livestock marketing has made some of these changes particularly hard for herders, who have tended to opt for more traditional production techniques and management strategies (such as more mixed herd structures, hay making and home remedies for animal health problems), *de facto* reducing their own dependence on markets.

In 1993, objectives, guidelines and strategies for economic reforms in agriculture were reviewed. (Box A2 in Appendix 2 highlights some objectives relevant to livestock marketing, approved by the government.) The general stated objectives of the reforms appear fairly clear:

- the overall aim is to foster competition in a market environment, with market entry and farm-gate prices having been liberalised;
- the government pledges to encourage private (and group) enterprise and competition, as well as production for export, in keeping with opening markets internationally;
- the role of the state in agriculture should be restricted: it should facilitate and encourage market development, by providing infrastructure, training and market information for the sector. But it will continue to subsidise high-technology mechanised enterprises (because of their current non-profitability).

The broad stated objectives largely conform to the, by now, conventional marginalist prescriptions for marketing development (Abbott 1987) and they seem to indicate a radical departure from former statist orientations. However, a considerable degree of pragmatism appears on closer scrutiny, a pragmatism which is understandable, given the current status of other reforms and the country's relative resource endowments, technological capacities, fiscal constraints and terms of trade. But it is important to try to understand the reasons for compromising on reform, and to assess who will be most likely to carry the costs of market distortions and protectionist policies.

A central government concern has been to transform the old supply and distribution system into a functioning market system, without endangering domestic food security. Emphasis is placed on the need to improve supply, by raising levels of offtake and supplies to urban areas. In addition, greater market participation by herders is seen as the best way to raise rural incomes.

Another concern in agricultural marketing is to raise the levels of foreign exchange derived from the export of livestock products, in order to be able to import petroleum, machinery and other essential production and marketing inputs.

General objectives and broad statements (as provided in Box A2, in Appendix 2) are a far cry from identifying what market reform actually means in the Mongolian context. However, it is useful to take a closer look at specific guidelines and planned strategies for livestock marketing and its reform (Box A3 in Appendix 2 provides some highlights of such guidelines and strategies, as laid out in the same policy document of March 1993).

According to government guidelines and strategies (Box A3 in Appendix 2), meat will be supplied to urban consumers through the former state trading organisations (now shareholding private and parastatal companies) which will buy livestock from producers by direct agreement. This should mean that prices are now settled by negotiation between supplier and purchaser.

Although the state has reserved the export market for intestines (a highly profitable export, sold mainly to Germany and Switzerland) for itself, it is not clear how the export of live animals and meat will be organised. Some traders believe that the state - or parastatal companies - are the only ones with a legal right to export live animals, although export licences can, at least in theory, be issued to all types of trading agents on a quota basis by the Ministry of Trade and Industry (MTI).

Though the targets of the government's 'production capacity plan' are presented in a language similar to old-fashioned target planning terminology, the urban trade organisations and the state itself will apparently buy their supplies on the market. One strategy, for example, suggests that local administrations are now responsible for obtaining meat supplies from producers, for state purchase orders. In brief, slaughterhouses are now responsible for their own local procurement and transport (trekking), even if constrained by fixed prices, but local administrations have also been charged with a duty to assist the slaughterhouses to secure planned quantities of meat for state procurement. In some instances local administrators have felt required to use various means within their power to get producers and marketing agencies to agree to sell to the state at the fixed prices. In areas where former collective or state farm livestock companies still exist, this has sometimes been easier than in areas where the sellers are independent private herders.

In 1993 local administrations received state orders at set prices, which in many areas were largely ignored. On the other hand, when local state institutions, like the army, the police or hospitals, buy livestock or meat on the free market, these purchases are taken down as part of the state

order. The situation appears to be that local administrations received state orders at fixed prices and were ordered to purchase products from producers, who should agree to sell to the administration at the set price. What this has been taken to mean varied significantly between local areas. An example of how the new-style state orders were perceived in one local area in the Khangai region, is provided in Box 2.7.

Box 2.7: Perceptions of the new production capability plan in Arkhangai, 1993

In Tariat, the *sum*-level production capability was submitted to the local people's *hural*, to be discussed, changed if necessary, and then agreed upon. The capability was then divided into amounts that should be produced per head of livestock, and so per individual herder, and into *bag*-level targets. In January 1993 different marketing organisations were given responsibility for the different *bag*-level production capabilities. Different companies and a *sum* broker were given the responsibility for procurement within different *bag*. These organisations then informed the herders of their individual production capabilities, based on the number of animals they owned. However, the herders did not have to sell any particular amount of any product to any organisations; they could, in principle, sell as much, or as little, as they chose to whomever they chose.

Herders themselves had very different conceptions as to what their individual capability calculations actually meant. Some herders automatically fulfilled them, out of habit, a feeling of duty ('the state needs meat; we must provide it'), or because they did not realise that compliance was no longer compulsory. Others were worried about the consequences of not fulfilling the order and in one case it was seen to have a bearing on pasture rights. There were many different myths about livestock marketing under privatisation; one herder believed that all products from *ex-negdel* animals had to be sold to the company, while products from previously private animals could be sold as herders wished. The wife of another herder said that, while the production capability was compulsory, herders could choose whether to sell it through the consumer co-operative or the company, or both. Other herders realised their new freedom of choice, and ignored their production capability calculations completely. Thus, although these capabilities had been worked out in detail, they bore little relationship to what was actually being purchased (for most products there was a significant shortfall) and the organisations responsible for the targets had no method of forcing the herders to meet their individual targets. The consequences of the targets not being met were generally unknown.

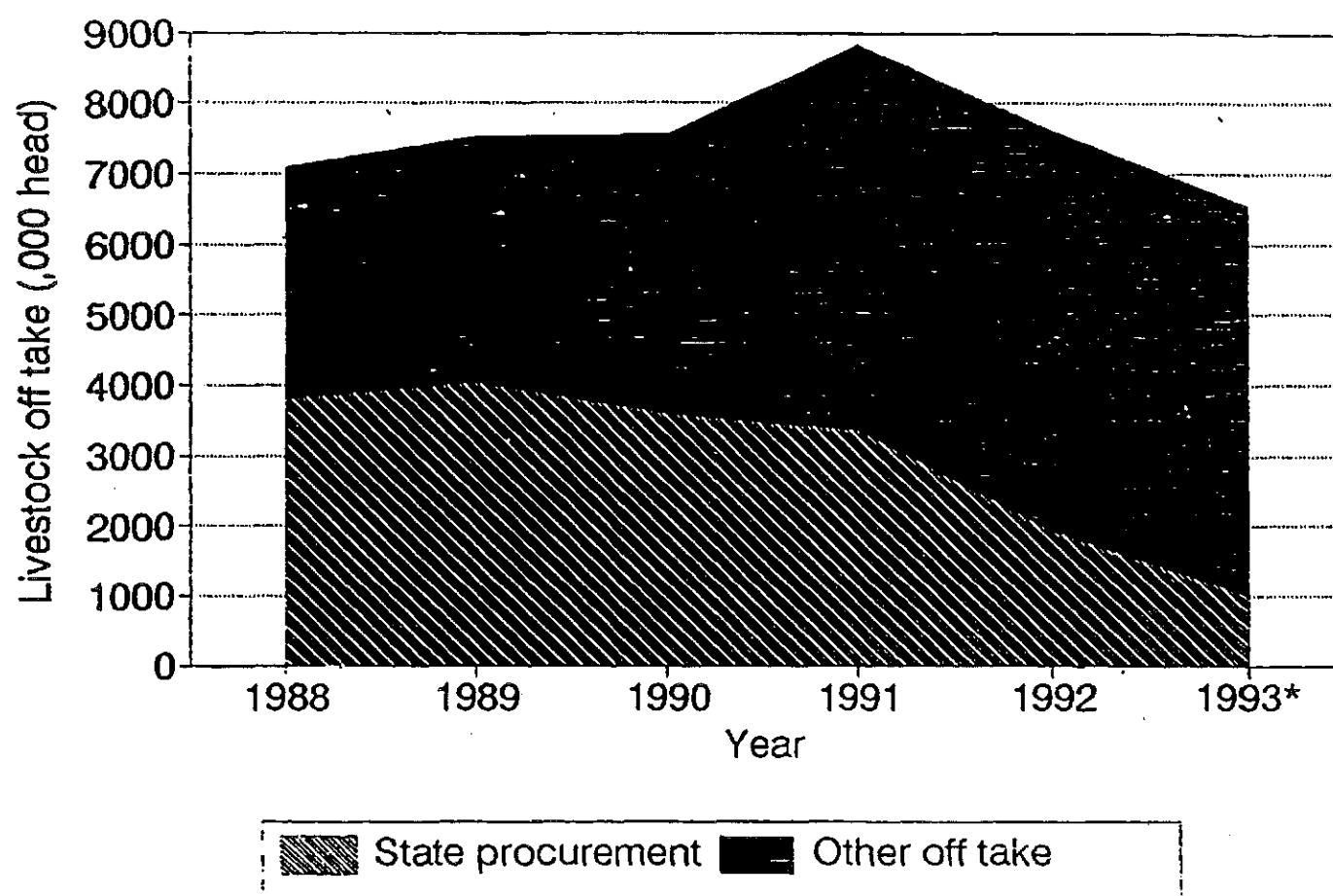
Source: PALD 1993, Vol II.

2.6 THE CONTINUED DECLINE OF STATE PROCUREMENT

As a result of the continued insistence, by local administrations, that they should fix their own prices, combined with the new situation with respect to ownership of livestock and to making marketing decisions, it is perhaps not surprising that the system for state centralised procurement is currently declining rapidly. Although there also appears to have been a more general decline in livestock offtake for slaughter or sale since 1991, the fall in the state sector meat trade started earlier and has been significantly more rapid, with the result that the proportion of livestock offtake destined for urban domestic consumption declined significantly. The total number of animals (as well as the proportion of total offtake) reaching consumers through channels other than through the state procurement system, increased significantly between 1989 and 1991, after

which the total volume stabilised. There has been a radical shift in the proportion of animals marketed through public channels; from over half to approximately one-sixth of the total offtake, as illustrated by Figure 2.1.

Figure 2.1: Declining share of state procurements in total livestock offtake



Note: Camels are not counted, since they are not procured under the state system, but overall they form an extremely low proportion of total offtake for meat. Using large animal equivalents (rather than head of livestock) gives an almost identical picture, so the simpler measure was used for ease of presentation.

Source: Estimated on the basis of data from the State Statistical Office (1992, 1993, 1994).

At the same time as the rapid decline in the state sector livestock trade there have also been repeated changes in the organisation of centralised procurement of meat. Responsibilities for state procurement of agricultural products were allocated to the Agricultural Commodities Exchange in October 1992, but the final responsibility for state meat procurement was transferred to the state-controlled slaughterhouses and meat processing companies in March 1993 (though *aimag* and *sum* administrations have also been ordered to assist in supplying various state controlled enterprises, as discussed above). Whether a cause or a consequence of these changes,

the rapid decline in state centralised meat procurement, as well as the more general decline in overall offtake rates (largely explained by the decline of the former), has most likely also been affected by a complex range of major changes at several levels, which will be further explored in the remainder of this report.

Explanations for these declines in livestock offtake and marketing are sought primarily in the slow development in the trade environment, especially the delayed liberalisation of farm-gate prices and the continued fixed pricing policy for parastatal marketing agencies, which resulted in worsening terms of trade for pastoral products relative to other consumer goods, and the remaining *de facto* barriers to market entry and fair competition for alternative marketing channels, within the context of the increase in private ownership of livestock. This is the subject of the following chapter. Constraints in urban demand (consumer demand and industrial demand) as well as opportunities for export are explored in Chapter 4, while Chapter 5 describes how the mechanisms for decision-making in marketing have changed at the producer level (with de-collectivisation) and how herders are responding to their deteriorating external marketing environment.

3 FACTORS CONSTRAINING EXCHANGE AT THE LEVEL OF MARKETING SYSTEMS

Several factors currently constrain the development of competitive and efficient livestock marketing in Mongolia today. The slow liberalisation of agricultural prices has tilted terms of trade against pastoral (and other) agricultural producers, and continued practices of fixing agricultural prices in the public sector (and for parastatal companies) have kept a downward pressure on producer prices for pastoral goods. As a result of current difficulties for new market operators, herders often face oligopolies (semi-monopolies of very few - sometimes colluding - buyers) in certain areas and during long periods of the year. This situation contributes to keeping pastoral prices relatively low. Factors which constrain the emergence of new competitive marketing channels include cash shortages in the economy, high interest rates for business credit, a high dependence on barter trade and the high cost of transport. Each of these will be analysed in more detail below.

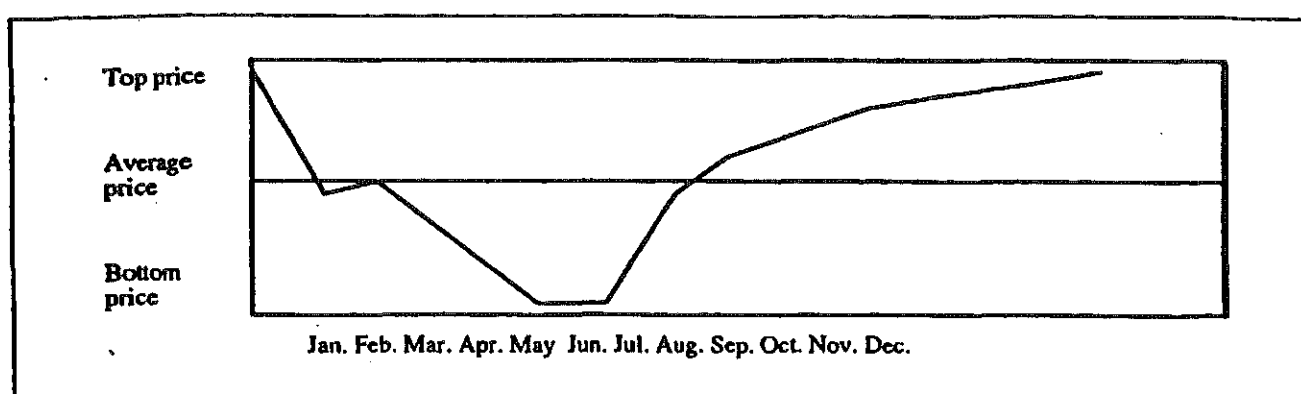
3.1 PRICE REFORMS AND DUALISTIC PRICING POLICIES

A major constraint on marketing of produce has for a time been the relatively low prices of livestock products in relation to other consumer goods. Before 1990 there was virtually no price inflation and prices were kept stable by means of fixed prices in the command economy. Imported products also enjoyed considerable price stability as a result of the former CMEA trade arrangements, which were largely beneficial to Mongolian interests. In 1991, however, the Mongolian Government was impelled to devalue the national currency, the Tugrik, twice, as the constellation of international trading partners began to shift. By 1992 it was more or less forced to liberalise most food prices, as a result of the escalating cost of importing foods on world market terms (connected with the collapse of the CMEA). However, prices for domestically produced foods, such as flour, milk and meat, were still controlled, resulting in a serious deterioration in the terms of trade for domestic agricultural producers (including pastoral livestock producers). In 1993, however, the government finally liberalised prices for domestic foods for the private sector, with the result that the prices for these goods also began to rise.

There are distinct seasonal patterns in farm-gate livestock prices, due to the rigidly seasonal nature of livestock production. According to herders, the price of livestock reaches a peak in November and December and drops in January, to recover slightly in February (in time for *Tsagan Sar*, the Mongolian New Year, and the start of the lambing period), followed by a decline until it reaches bottom levels in April and May, after which time prices recover to average levels by June and then gradually increase until the main slaughtering season in November and December. This cycle, which is represented in Figure 3.1, is clearly partly related to fluctuations in animal weight and would be expected to hold (to some extent) even in a situation of fixed prices per kilogram of meat.

Aside from animal weight, there are other factors affecting kilogram prices (both live weight and carcass meat prices), which follow a similar seasonal pattern and reinforce these fluctuations in live animal prices. On the side of supply; the introduction of new offspring during spring means that selection for offtake can begin and surplus animals become available for sale. On the side of demand; the traditional urban practice of buying and storing meat for the winter depends on the fact that storage is easier in the winter and spring than in the summer (refrigerators and freezers are rare), which increases both the demand for meat and its price in the late autumn and early winter.

Figure 3.1: Seasonal fluctuations in livestock prices



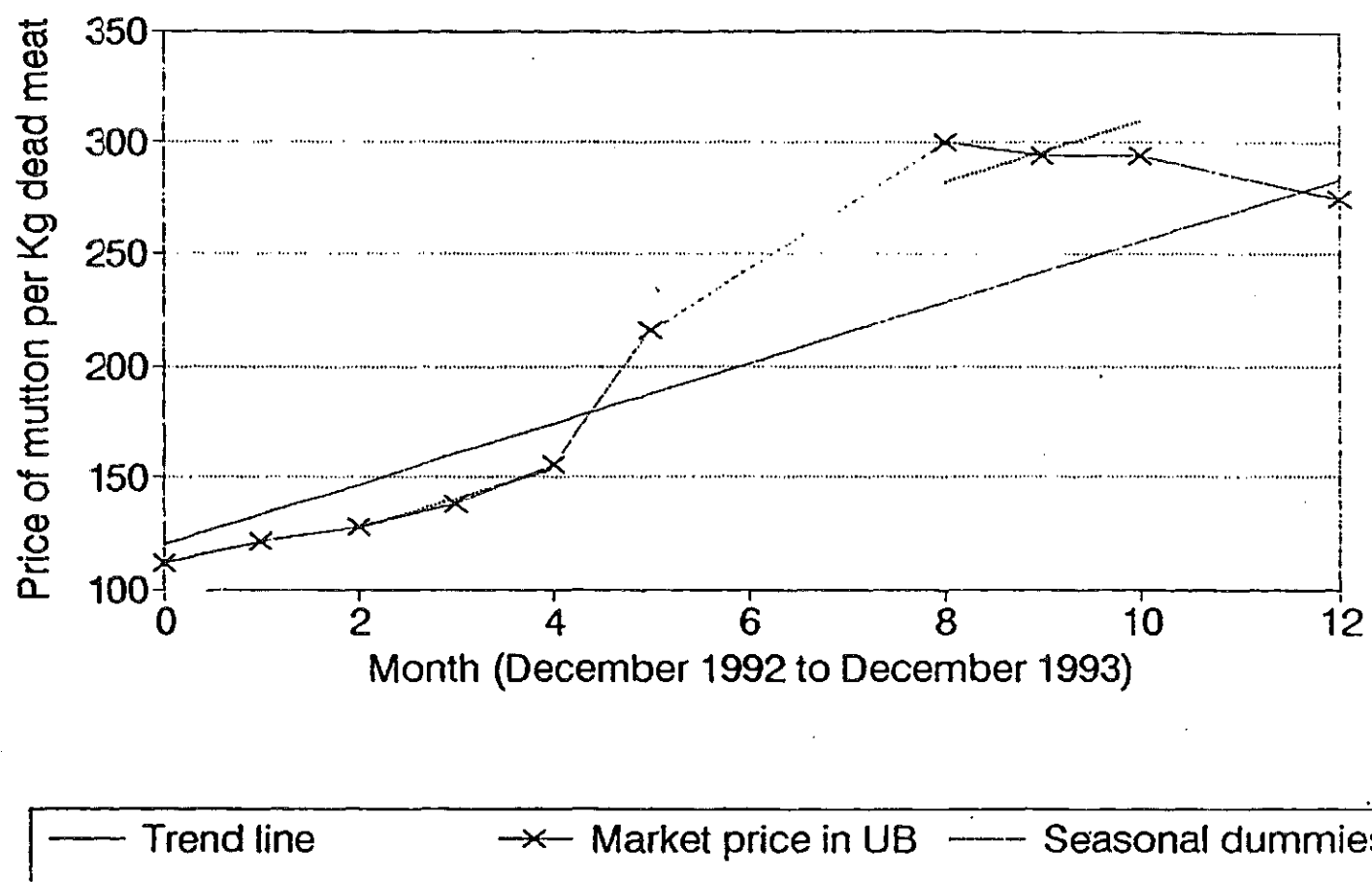
Source: PRA with herders by S. Badarch, July 1993 (Edström and Enkhmagan 1993; PALD 1993).

Statistics from a recent one-year longitudinal price survey of several markets in Ulaanbaatar are generally consistent with this hypothesis. That kilogram prices for meat display seasonal fluctuations around an underlying trend of overall price inflation is shown in Figure 3.2. Linear regression of these time series data, over months in the year, suggests that - if one introduces seasonal dummy variables for spring and autumn, as suggested by the above hypothesis - the data fit a linear trend very closely indeed (with an R squared value of 97 per cent).

The overall price inflation in meat was about 130 per cent between December 1992 and December 1993, although in August prices reached a peak at about 300 Tugrik per kilogram of mutton, almost 200 per cent (or three times) higher than the price in December 1992 (the price of beef followed that of mutton extremely closely throughout the year). However, 130 per cent is actually lower than the general inflation in urban prices, which can be estimated at 183 per cent during this period, on the basis of the consumer price index compiled by the State Statistical Office (SSO). In fact, SSO figures show the inflation in the urban market price of meat as only 108 per cent for mutton and 109 per cent for beef over the year (also between December 1992 and December 1993). Though price inflation in food and beverages, in urban areas, has been slightly higher than in most other categories of expenditure, as shown in Figure 3.3, much of this increase is due to rapid price increases for foods other than meat. In fact, between December 1992 and December 1993 the real price of meat declined in relation to the overall urban consumer price index, whereas the price of flour increased substantially, as shown in Figure 3.4.

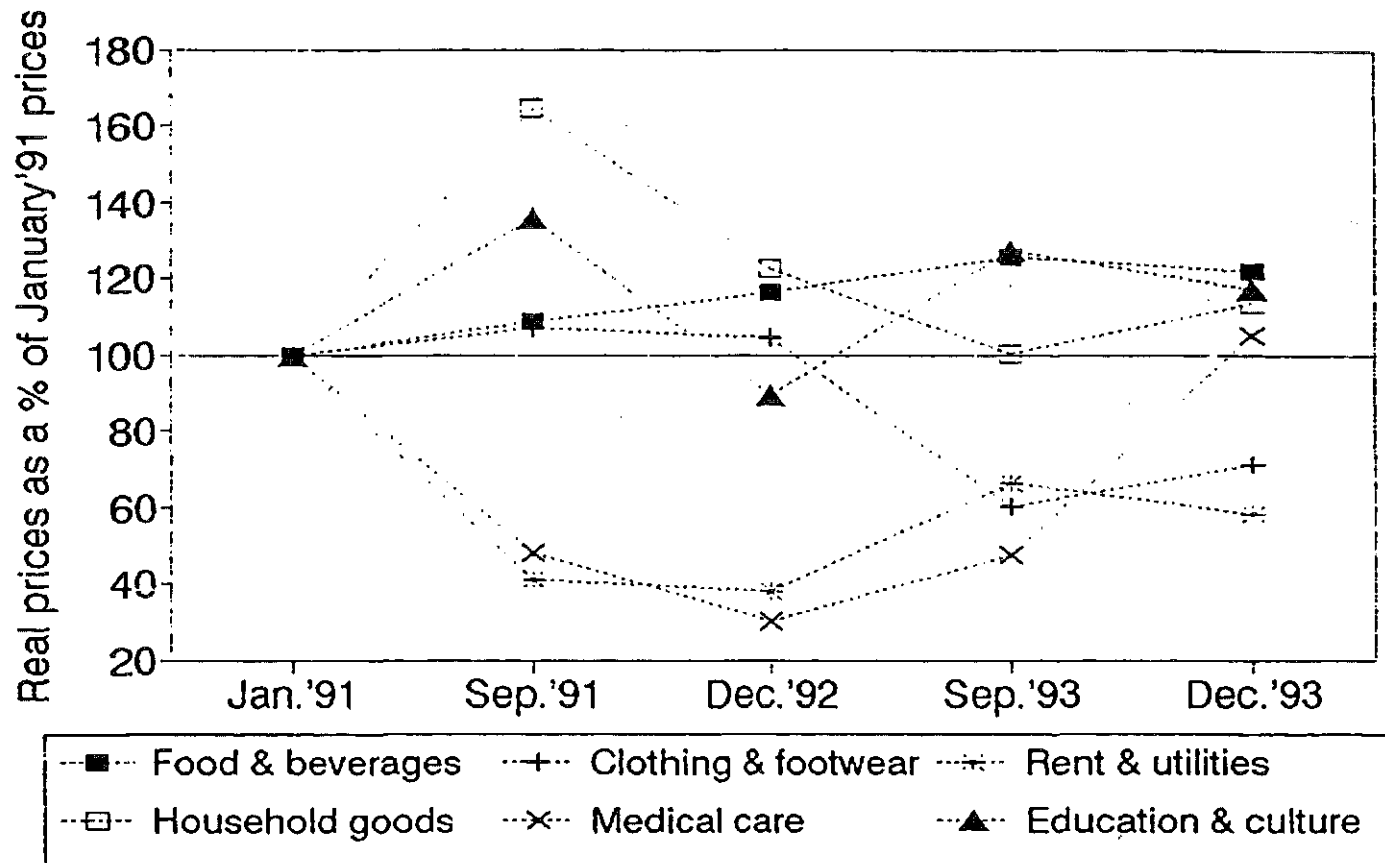
This suggests that the terms of trade for herders may still be declining today, and that it will take time for meat prices to catch up with other prices to anything close to the relative prices of a few years ago, if, indeed, they ever do. If one compares trends in the relative terms of trade between, for example, meat and flour (the main staple foods of herders) in rural markets, a four to five-fold deterioration in herders' terms of trade emerges over the period 1991-3 (depending on the grade), as shown in Table 3.1. Relative prices before 1991 did not change significantly, as a result of fixed prices.

Figure 3.2: Trend in price of mutton, 1993



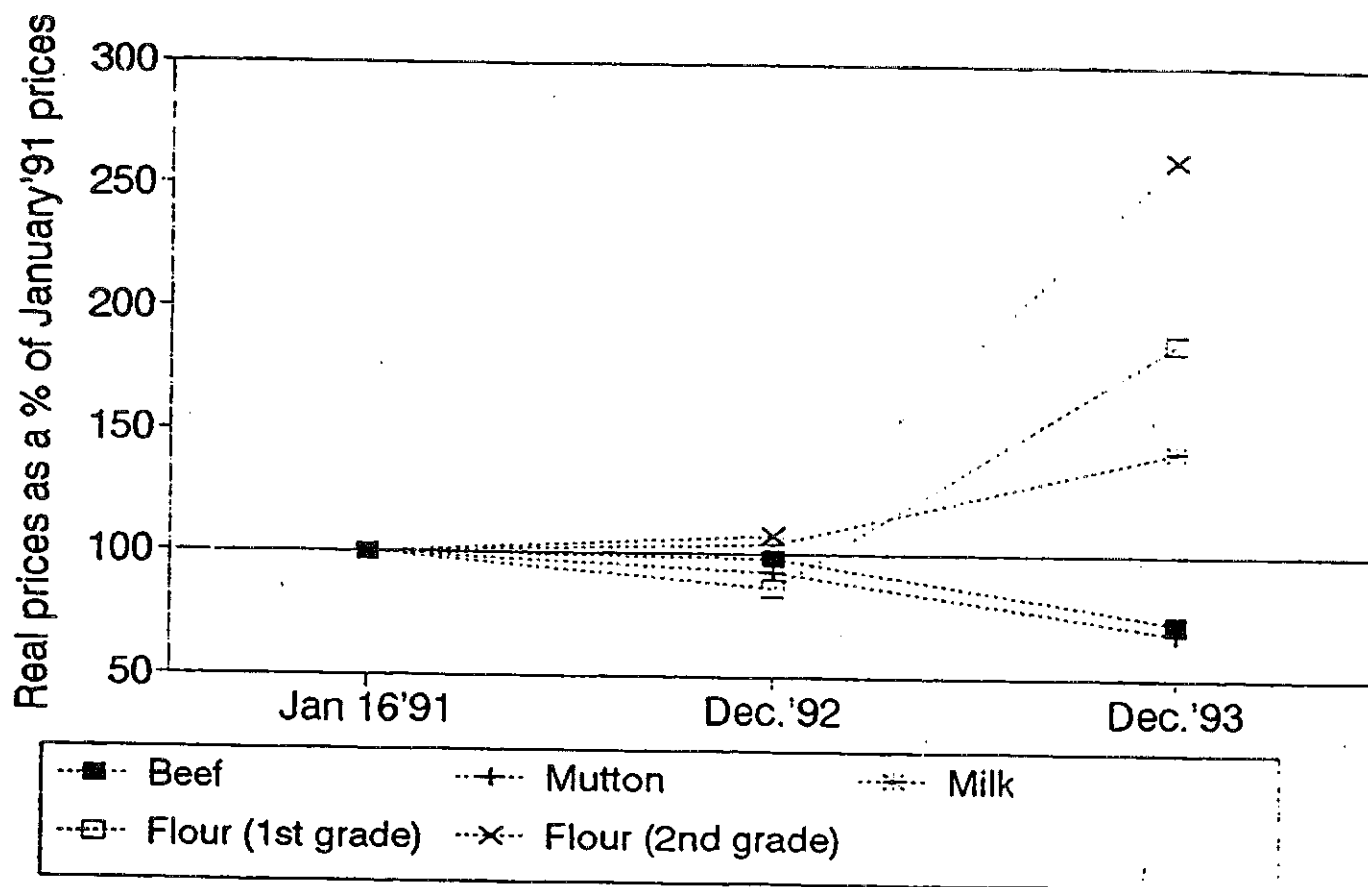
Source: Data from the Project on Developing Market Relations in Agriculture (IAE).

Figure 3.3: Relative price movements in urban areas, deflated by urban consumer price index



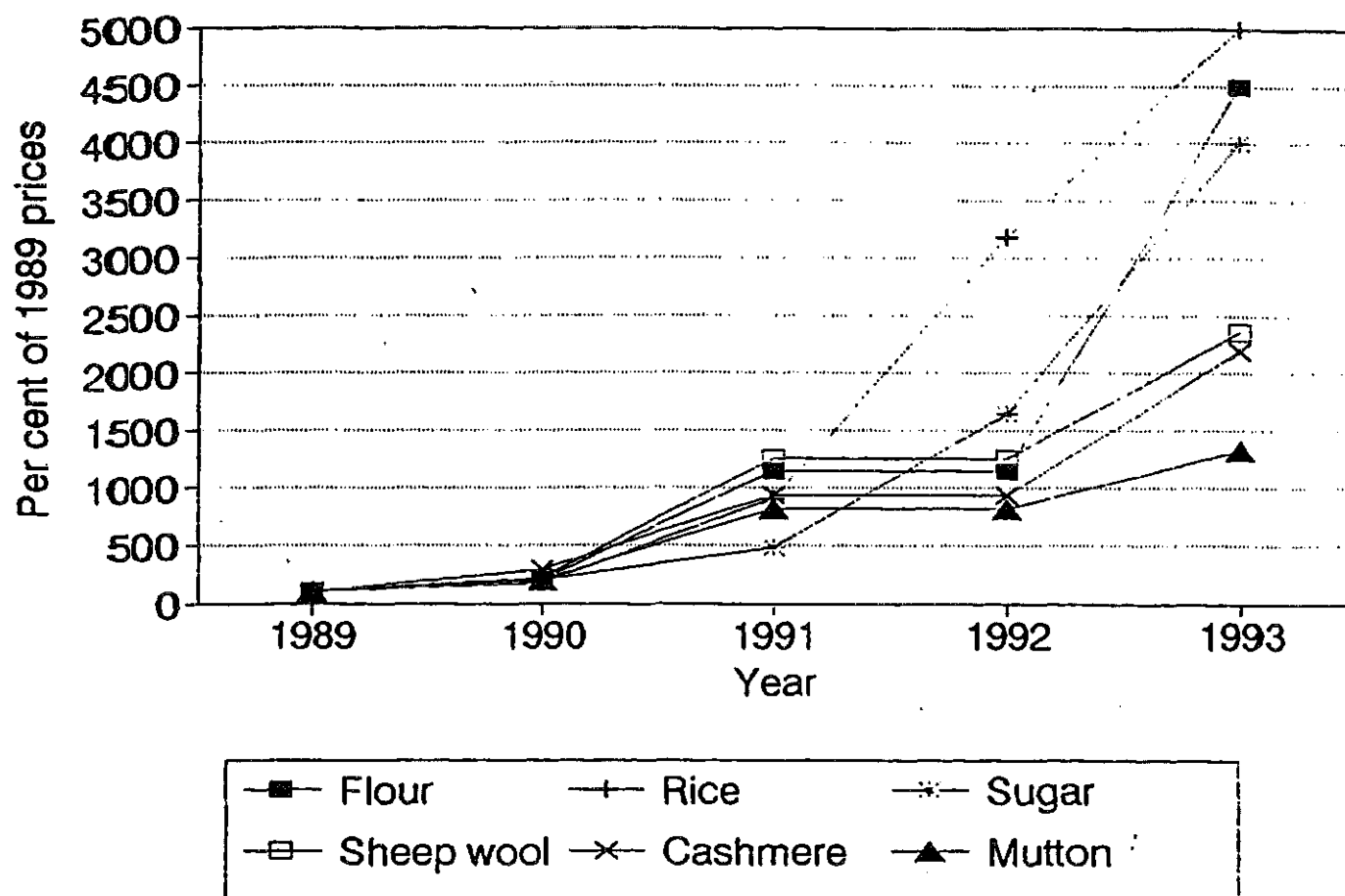
Source: Data from consumer price index (CPI), compiled by the State Statistical Office (SSO).

Figure 3.4: Relative shifts in urban food prices, deflated by urban consumer price index



Source: Data from consumer price index (CPI), compiled by the State Statistical Office (SSO).

Figure 3.5: Price inflation in Altai, Gobi Altai, for livestock products and basic staples



Source: Data collected by Guy Templer at Gobi Altai *aimag* administration, 1993 (PALD 1993).

Table 3.1: Relative rural terms of trade between the prices of mutton and flour (kilograms of flour equivalent, in price, to one kilogram of carcass mutton)

Type of flour	Jan. 1991	Dec. 1992	Sep. 1993	Nov. 1993	Dec. 1993
1st grade	6.3	6.7	3.4	2.5	1.8
2nd grade	10.0	8.6	3.6	2.8	2.0

Source: Data from consumer price index (CPI), compiled by the State Statistical Office (SSO).

The real situation, however, may be even worse, since the prices in Table 3.1 are rural consumer prices; the price herders receive for the same meat is much lower, but the general trend of deterioration is likely to be similar for farm-gate prices. This means that the main rationale for a herder to trade meat for flour is undermined, as the calorie gain from converting small amounts of meat into larger amounts of flour has been reduced drastically.

Most other consumer goods have also risen in price faster than meat, and rice has risen even faster than flour since the reforms began; this is partly the result of the devaluation of the Tugrik resulting in higher import prices, whilst domestic agricultural prices remained suppressed, as is shown in Figure 3.5. Import and trade taxes contribute to inflation in imported consumer goods and, hence, to the deterioration in the terms of trade of domestic livestock producers. In the case of flour, domestic prices are inflated both by protectionist import taxes and by the fact that a price cartel is said to exist among domestic wheat farms, which is thought to be accepted in the interests of national self-sufficiency in flour production. However, meat prices are also kept low by the fact that they are still controlled in the public sector and parastatal trading agencies. Prices of primary livestock products, such as wool, cashmere, skins and hides, have also increased relatively slowly, although slightly faster than meat prices, as shown in Figure 3.5. This has encouraged herders to rely more on livestock products than live animals for exchange.

Figure 3.5, shows prices in Altai, the *aimag* centre of Gobi-Altai, and is a reflection of prices for various goods relatively close to remote pastoral producers and far from urban centres and crop-producing areas. The deterioration in relative terms of trade also partly reflects a shifting of marketing costs directly on to consumers and producers, who now have to pay more for goods further away from their point of production (and herders in Gobi-Altai are far away from areas of flour production in Mongolia, as are most herders in the country) as well as having to accept lower prices for the sale of products further away from their terminal markets. For this reason, producers - particularly remote ones - can expect an initial deterioration in terms of trade as a result of rapid market liberalisation, but the particular sequence of reforms and the delays in the liberalisation of domestic agricultural produce have made that shock unnecessarily severe for herders, since consumer goods prices were liberalised well before those of meat and other livestock products. Furthermore, the fact that the government continues to constrain exports of animals through a largely inefficient quota system is also making the transition period particularly difficult for herders in remote regions.

That prices of animals are lower further away from the capital can, for example, be seen in the average prices offered to herders for sales of private sheep (the type of livestock most commonly sold by herders), in different areas, as shown in Table 3.2. In the case of livestock products, however, the picture is more complex, since the export of these has been more liberalised, and

since there are other terminal markets than the capital in many cases, such as the Chinese market for wool, hairs, skins and hides, the Erdenet carpet factory for wool, and leather industries in Darkhan for skins and hides.

Table 3.2: Average prices received for sheep sold, by 73 households in four research sites of rural Mongolia, during the marketing season, 1992-3

<i>Sum:</i> <i>Aimag:</i>	Altan Bulag, Tuv	Khishig Undur, Bulgan	Kharkhorin, Uvurkhangai	Bayan Tsagan, Bayan Khongor
Type of area	<i>Ex negdel</i>	<i>Ex negdel</i>	Ex state farm	<i>Ex negdel</i>
Distance, <i>aimag</i> -UB	(43 km)	(318 km)	(430 km)	(630 km)
Average price	3,563	3,043	2,722	1,925
Standard deviation	370	845	413	537
Selling herders (n)	8	10	6	9

Source: Herder household marketing surveys carried out between July and November 1993.

Box 3.1: Price fixing by municipal and *aimag* administrations

City and *aimag* administrations normally run price commissions, answerable to their (*aimag* or city) governors, who are in turn appointed by the Prime Minister of the National Government. These commissions are central to the continuation of price regulation for centralised as well as *aimag*-level state procurement of meat. In Ulaanbaatar, for example, the price commission makes estimates of procurement and production costs of planned target procurement for the state-controlled Makhimpex slaughterhouse, which apparently do not take into account either inflation or changing interest rates. Profit margins allowed are extremely slim, and the profit mark-up allowed to shops agreeing to sell this meat is only 4 per cent (the retail price is 8 per cent higher than the wholesale price, but 3 per cent of that goes to the state-owned Makhtoss company, which is responsible for the transport of the meat). Makhimpex itself only made a very small profit in 1993, and then only if no account is taken of inflation and unpaid debts. Despite receiving substantial amounts of subsidised credit, the company cannot make real profits, primarily as a result of the fixed pricing policy, according to a Deputy Director of Makhimpex.

In Erdenet, the town's state procurement of meat and price regulation are carried out by the local branch of the Agricultural Commodities Exchange, ACE, which is 100 per cent owned by the municipal administration (whereas the price of flour and bread is regulated by the municipal price commission). According to the Director of Erdenet ACE, Mr Badamdorj, the main aim of their meat procurement operations is to keep the price of meat stable and low, and although the meat rationing system has now been abandoned the administration is considering the option of providing targeted meat subsidy coupons for the poorest people in the town. A major problem is seen to be the current lack of co-operating institutions in the countryside, as a result of the collapse of the old state procurement system.

Source: Key informant interviews in Erdenet, October 1993, and Ulaanbaatar, April 1994.

The main reason why livestock prices have remained low relative to other prices is that the government has continued a fixed price policy for meat (unlike in the case of other livestock products or other consumer goods), despite price liberalisation in the private sector. The fixing of meat prices by parastatal organisations is carried out by *aimag* and municipal administration price commissions, which are described in Box 3.1.

Because the major parastatal marketing organisations enjoy a range of privileges and support from the administration at every level, they are effectively an oligopoly of agents, collectively enjoying monopsonistic buying powers. This means that most marketing outlets can offer herders lower prices than they would have to offer within a more competitive environment. In a free market, competitors would exploit the price window resulting from the monopsony pricing, by reducing costs, offering producers higher prices, and reducing retail prices, while trading in larger volumes. This process, which requires open and equitable market access by alternative operators, would (i) increase farm-gate prices to herders; (ii) reduce retail prices in the open or parallel markets (where retail prices are not fixed); as well as (iii) increase quantities of produce marketed. Abolishing price rigging by the public administration would facilitate this process, but without also ensuring that competition between marketing channels is open and effective, it would be difficult to guarantee that an oligopoly of parastatals would not persist.

3.2 LIMITED ACCESS TO COMPETITIVE MARKET OUTLETS

Despite recent liberalisation in livestock prices in the private sector, dualistic pricing policies still have a depressive effect on overall producer prices received for livestock, as discussed above. Furthermore, the oligopoly position of the major marketing agencies with respect to buying from herders also militates against rapid increases in producer prices for meat in the parallel market and other livestock products. That access to competitive marketing outlets is perceived as a major problem by herders, emerges clearly from over 100 interviews with herding households carried out between June 1993 and May 1994. The same conclusion was also reached by local *sum* governors, according to a survey of 36 *sum* governors from all 18 *aimag* of Mongolia, carried out in April 1994 as part of the present research. This confirmed earlier research (PALD 1993).

The marketing of surplus production in many *sum* is dominated by the former *negdel* and state farm companies. Company animals and livestock products are produced in a similar way to the old system in many places (though not in most districts), and the marketing of this surplus is usually carried out by the companies themselves, sometimes via local consumer co-operative trade organisations. Herders can also sell their private produce through the companies, but most herders try to refrain from this, since prices are considered too low, except for products like milk, *airag* or wool, which are regularly collected by the companies.

In some areas - particularly near urban centres - livestock companies face competition from alternative marketing operators in buying produce from herders' private animals. Such alternative marketing channels, sometimes available to some herders, include the consumer co-operatives, ACE brokers, private trader companies, unregistered 'free traders', and marketing *khoshoo* (small-scale co-operatives). However, these are not available to herders in many parts of the country. According to the survey of 36 *sum* governors, the average number of marketing channels active at *sum* level is four or five, which is consistent with the results of a socio-economic survey (of *sum* in ten different *aimag*) carried out during 1993 (PALD 1993). Table 3.3 shows the percentage of surveyed *sum* in which the different marketing outlets were available to herders. The number of *sum* in which travelling private traders or buying agents were active was limited for most products.

Table 3.3: Percentage of *sum* (n=36) in which different livestock product marketing outlets are available to herders

	% of <i>sum</i> with meat/live animal marketing outlets	% of <i>sum</i> with skin, wool or cashmere outlets	% of <i>sum</i> with marketing outlets for milk
Agricultural company	83	79	50
Consumer co-operative	55	77	17
Local <i>sum</i> ACE broker	55	53	14
Trading <i>khoshoo</i>	27	32	11
<i>Sum</i> -based private trader	44	59	36
Visiting private trader	31	33	19
Visiting buying agent	22	29	-

Source: Questionnaire survey of 36 *sum* governors, April 1994.

Most herders have some access to at least two of the three main established channels - usually companies and consumer co-operatives or *sum* ACE brokers (linked to *aimag* Agricultural Commodity Exchanges) - as well as occasional and unpredictable access to private traders. Few herders have access to alternative channels such as voluntary *khoshoo* co-operatives or buying agents from urban industries, or have direct access to urban markets.

Table 3.4: Average buying prices offered by alternative marketing channels in 1994

	Agric. company	Consum co-op	ACE broker	<i>Khoshoo</i>	<i>Sum</i> traders	Mobile traders	Buying agents
Meat (Tg/k)	81	79	80	80	92	107	81
Skins (Tg/pc)	1,028	1,064	1,104	1,081	1,096	1,169	1,317
Wool (Tg/k)	93	83	91	86	97	97	95
Cashm (Tg/k)	2,738	2,554	2,720	2,290	3,037	2,990	4,088
Milk (Tg/l)	41	48	53	68	70	84	N/A

Source: Questionnaire survey of 36 *sum* governors, April 1994.

The three main established channels (livestock companies, CCs and ACE brokers) have strong links with the administration and play an active (even if sometimes reluctant) role in continuing state procurement of animals at fixed prices, with the result that price competition is limited, as discussed above. In the case of livestock products, where market liberalisation has gone further than for meat, price competition between market channels is stronger. Table 3.4 shows price differences between different marketing channels for various products, as reported by *sum* governors in the survey cited above. Although price differentials between the three main

channels are small for most products, prices offered by private traders are generally better, as are prices offered by buying agents of urban skin and cashmere industries. Private traders also often pay in cash, which herders prefer.

In most *sum* where agricultural companies, consumer co-operatives and *sum* brokers were active, their prices were more or less identical, particularly for meat and skins, and to a lesser extent for wool and cashmere. Although travelling private traders paid the highest prices for milk, most *sum* depended on agricultural companies or local private businesses for milk marketing, since private traders were not present.

Herders' own perceptions, according to field interviews, generally confirm this analysis. At a local - *bag* - level, most herders find access to market outlets even more restricted than do those living near *sum* centres, where marketing agencies have some representation. At local level, many herders are restricted to one or two market channels, such as representatives of a livestock company or a consumer co-operative (though the latter usually does not buy meat at this level), as well as very occasional and unpredictable visits from travelling private traders. Aside from prices offered and ease of access and reliability of different outlets, herders also value buyers who pay in cash. Table 3.5 summarises the results of a participatory rural appraisal exercise with a sheep breeder, scoring different market channels by these characteristics and by the different livestock products marketed. The CC came out worst in virtually all respects except access, where it was considered better than self marketing. The company scored high on access and reliability, while private traders scored highest on availability of cash. Prices offered by the company and private traders appear similar at first glance, though this is mainly the result of good wool prices offered by the company. By and large this herder preferred to sell animals or meat to private traders, but wool to the company, since the latter had good connections for marketing fine fleece wool; the two scored similarly for other products, like skins or hides.

Although herders prefer to sell live animals for meat to private traders, there is often more even competition between market outlets for other livestock products (the pricing of which was liberalised earlier and more fully than in the case of animals), as illustrated by Table 3.5.

Private traders come in many forms, and the term is usually used to refer to small independent and often unregistered traders. Many small traders live in the *sum* or *aimag* centres and operate on a small scale, buying up skins, wool, cashmere or animals from herders and selling to factories and other buyers in urban areas like Ulaanbaatar, Erdenet or Darkhan. Other 'free traders', as they are sometimes referred to, are based in the cities and operate out from there. Transport is often a single car, a rented lorry or even bus or train. There are also a number of small-scale operators (middle-women/men) engaged in arbitrage between urban markets, buying sheep skins, for example, on the open market in Darkhan or Erdenet and taking them to Ulaanbaatar to re-sell in the open market, where many international traders and companies come to buy. Profit margins can often be slim and marketing risks considerable.

Few private traders are restricted to the national market and there seems to be an increasing trend towards selling raw wool, cashmere (until banned in 1994), skins and hides to China. Chinese importers often pay substantially higher prices for raw livestock products than do state-owned or private companies and factories in Mongolia. Furthermore, small traders will buy anything (usually a mixed bag) with high price differentials and often engage in a triangular trade between China, Russia and Mongolia, in order to exploit a greater range of opportunities.

Table 3.5: Results of participatory 'weighted factor scoring' of alternative market outlets, by a fine-fleece sheep breeder with an ex-state farm company

Market outlet: Factor (weight)	Livestock company	Consumer co-operative	Private traders	Self marketing
Prices (5)	45	20	45	60
Access (4)	60	36	48	0
Reliability (2)	24	6	18	24
Cash (3)	27	18	45	45
or, by product				
Meat	42	25	57	43
Wool	62	25	47	43
Other products	52	30	52	43
Weighted score	156	80	156	129
Preference rank	1st	4th	1st	3rd

Source: Simplified summary results of a PRA exercise developed with a fine-fleece sheep breeder, member of an ex-state farm company, in Khutul, Selenge, March 1994.¹

Aside from the marketing channels already discussed, herders in some areas have access to a local *sum* broker (often connected to the Agricultural Commodities Exchange (ACE) through an *aimag*-level ACE broker) or an agent of a state-controlled trading or processing company, such as Makhimpex (which represents the central state-controlled meat trading company). Brokers are usually local agents, or partners, of *aimag* centre representatives who, in turn, have seats on the Agricultural Commodity Exchange. *Aimag*- and municipal-level ACE broker companies are often in charge of local state procurement orders for livestock, as described above. So far, however, the exchange has not enjoyed great success in terms of livestock marketing. The role and nature of local brokers and broker companies vary substantially between sites. In Kharkhorin (Uvurkhangai) the local broker agent left early in 1993, as he was not able to make sufficient profits. In RENCHINLHUMBE (Khuvsigul) the local broker was evicted for making profits on selling consumer goods to local people at what were thought to be exploitative prices by the *sum* governor, who proceeded to organise the marketing himself (Payne and Erdenebaatar 1993). In Altan Bulag *sum* (Selenge) which borders on Russia, the *sum* broker company is also an agent of the *aimag* ACE in Sukhbaatar, the *aimag* centre of Selenge. The Director of this broker company claims that state procurement of agricultural products through broker companies has collapsed, because there are no incentives to comply with state orders, but only obligations,

¹ For a full description of the sequence of steps carried out in this exercise refer to Appendix 3. In essence the herder evaluates different marketing channels by different useful characteristics (factors). The relative importance of these different factors to the herder is taken into account (scored) and multiplied by the 'raw' scores, deriving the weighted scores shown in the table. The herder stressed that his rating of the company was unusually positive, since he tended a pure breed of fine-fleece sheep for an ex-state farm company, which paid good prices for the wool. Living midway between Erdenet and Darkhan, he also had the possibility of travelling to urban markets to sell his goods himself, as well as relatively frequent visits by private traders, which most herders do not have in practice. With these provisos, his valuation of the different market channels is typical of many herders.

though there are no explicit penalties for not complying. The buying and selling prices for state order products are identical, for the company, so they make their profits on trading hay for petrol with Russia instead.

Aside from the channels described above, small-scale voluntary co-operatives (*khoshoo*) are also sometimes involved in marketing. As well as herders' *khoshoo*, there are also clothes making, dairy processing, and marketing *khoshoo* in some *sum*. The major difference between *khoshoo* and independent private traders is that a group of entrepreneurs can get access to cheaper credit (and sometimes some capital assets remaining to be privatised) by registering as a voluntary *khoshoo*. A serious limitation on the further development of *khoshoo* in Mongolia today, however, relates to the fact that, in order to qualify as a *khoshoo* (which is necessary, in order to obtain bank loans, for example), members have to own a common joint stock of 4 million Tugrik. This is equivalent to a common herd of some 1,300 to 1,600 sheep, at 1993-94 prices. In a sparsely populated country like Mongolia, and where household herds tend to range between some 100 and 200 animals, it is difficult to organise a sufficiently large number of herders into an effective and democratic *khoshoo*. Furthermore, herders are highly reluctant to re-collectivise all their animals, so finding the required number of herders to build a co-operative herd is unlikely in most settings. Consequently, most *khoshoo* today appear to be made up of a number of families, based in *sum* centres, who received some large assets through privatisation (such as vehicles, shops, or small mills), or of a combination of such families and their herding relatives in the countryside. *Khoshoo* composed exclusively of rural herders are very rare indeed, but if the 4 million Tugrik threshold remains fixed, it may only be a matter of time until inflation and herd growth have rendered this threshold affordable by smaller groups of herders.

One alternative marketing experiment is the Private Herders Association (PHA), which was established by individuals originally connected to the Democracy Movement of the early 1990s, and with assistance from a German NGO, the Konrad Adenauer Foundation. The PHA is based on local partnerships of herders working in association with the central PHA in Ulaanbaatar to organise the marketing of livestock products and develop primary processing and local manufacture. Although originally claiming an unrealistically large membership, the organisation began in 1993 and 1994 to try to consolidate its membership at a local level, establishing four local partnerships and starting pilot projects, such as milk processing plants or local ox cart manufacturing, at three sites.

The aim of the association is to improve marketing for its members, and the principle is for the central PHA to purchase livestock products from local partnerships at local prices and then complete the marketing process with domestic and foreign buyers. Unlike livestock companies, CCs or ACE brokers, the PHA plans to return the profits to the local partnerships, after deducting 10 per cent for the operational costs of the association (and for expanding activities to new areas). The president of the association, Mr Ganghuyag, stresses that the PHA is a non-profit organisation and that it differs from *khoshoo* in that it is not an official economic entity (and nor are its local associated partnerships), that it is truly voluntary (which it claims is not the case for most *khoshoo*), and that it does not require substantial investments in commonly owned assets by its members. PHA local partnerships are composed and run by private herders, as opposed to former *negdel* managers (as is common for livestock companies and many *khoshoo*). Box 3.2 describes a local partnership of herders in the mountains of Uvurkhangai, which is associated to the PHA.

Box 3.2: The local private herders' PHA partnership, in Uyanga sum, Uvurkhangai

The local PHA partnership in Uyanga, in the high altitude Khangai mountains of Western Uvurkhangai, was officially established in April 1994, although contacts with the PHA in UB had been active prior to that (the central PHA has two representatives in the *sum* as well as another two in the *aimag* centre, Arvaheer). A number of households had originally wanted to form a marketing *khoshoo*, but could not find a way to overcome the problems of registration and the 4 million Tugrik common assets threshold. The idea of the local partnership originated from the PHA, and the local group received substantial assistance and advice in setting up the partnership, which is made up of 104 households from three different *bag* (though the majority belong to one valley community, which they refer to as a *neg nutgiikhyan*). The main aim of the partnership is to improve marketing for its members, but they have also received technical assistance and a matching grant-loan to establish a cheese-making plant at local level, which was in the process of being constructed during our visit.

The chairman, who holds a respected position in the community as the largest herd owner and the head of a very large family, was proposed as leader and accepted unanimously by the other households' representatives (normally the male household head) at the partnership's first meeting. The organisational work of the partnership is carried out on a strictly voluntary basis at the moment (by the chairman and three other members), and there are no membership fees. Several new households (some 100) want to join the partnership, but the present chairman feels that the ideal size of one group should be similar to a *neg nutgiikhyan*, since members meet regularly and the organisational work is more demanding the larger the group. Another problem described by the chairman, was the definition of what makes a workable economic unit. It was suggested that the partnership should focus on marketing generally, whereas the cheese-making plant ought to be a separate enterprise, since it does not have the capacity to process the yak milk of more than some 20 households. The question of how to resolve the remuneration of those directly involved in the organisational work and how to encourage these managers to assist new groups of herders to set up new partnerships remained to be ironed out. Other issues remain to be resolved, but both the chairman and other member households felt that the partnership should work, and that the cheese-making plant would be profitable.

Source: Interviews with members of the local partnership, Uyanga in Uvurkhangai, May 1994.

The PHA is clearly a young association, with a rather limited representation at local level in most parts of the country. It is interesting, however, in that it attempts to create a new way of approaching marketing on the basis of herder co-operation and participation. The association is struggling to find a new institutional framework in which to develop, but its political background has made the current government less than enthusiastic about supporting it. As in the case of other herders' frustrations in connection with forming their own marketing *khoshoo*, this suggests that the government needs to adopt a more open and flexible approach to the development of new forms of marketing and marketing organisations.

Although several different types of market operator are sometimes available in *sum* or *aimag* centres, some deal only in certain products. Also, in most local areas (some distance from *sum* centres, and where transport is always a major problem), herders do not have easy access to many alternative market channels at any one time (or season). Even if there are no actual monopolies,

many market operators face limited competition and enjoy monopsony powers in buying from herders. This tends to reduce producer prices and the quantity of goods the marketing operator has to supply, since there is little competition.

Aside from pricing policies and practices, additional reasons for the slow development of competing marketing channels can be found in (i) a current cash shortage in the economy and inequitable allocations of large subsidised loans, resulting in high premium interest rates for borrowing cash on credit for most operators; (ii) a related increasing dependence on barter trade; and (iii) the high cost of transport and inequitable access to fuel in many areas. These are discussed in the remaining sections of this chapter.

3.3 ACCESS TO CASH AND THE HIGH COST OF CREDIT AND INVESTMENT FINANCE

One of the most important constraints on marketing in rural Mongolia is the current lack of liquidity. When there is little cash available to traders, it is difficult for them to buy goods, since profits from sales usually come in later in the year, creating a cash-flow problem for companies, co-ops and traders alike. An entrepreneur's ability to make regular payments on loans is impaired, which makes banks reluctant to lend money to independent operators and raises the risk premium and the interest rate on loans. For example, in July 1993, the prevailing interest rate on loans to small entrepreneurs and herders was approximately 25 per cent per month. However, parastatal companies (and sometimes producers' *khorshoo*) have access to subsidised credit.

Even with substantial loans at subsidised rates of interest, however, major parastatal trading organisations face serious difficulties in getting access to cash as well as in making sufficiently large, or quick, profits to keep up interest payments. Since these parastatals are being forced to operate with fixed prices, even negative real interest rates can result in loss-making operations, as is described with examples from the state trade in live animals for meat, in Box 3.3.

Although parastatal organisations, such as local Consumer Co-operative companies, can get access to some credit from local branches of the Agricultural Bank, this bank does not lend money to herders (the country's major agricultural producers) or private traders, unless they are registered as private enterprises. The central problem in credit in Mongolia during the recent reforms has been not so much the level of overall interest rates - which, according to IMF figures, were negative in real terms from 1991 to 1993 - but rather the process of allocation of that credit. Large amounts of subsidised credit have been directed to various state enterprises and privatised firms on the basis of arbitrary political influence over banking operations and personal connections, rather than financial criteria (UNDP 1994). The low level of financial discipline is described by an example of a local bank branch in Umnugobi, in Box 3.4.

As a result of severe cash shortages, many companies and trading agencies have drawn up agreements with herders to pay part of the buying price at the time of purchase and the remainder after marketing has been completed. Herders have sometimes had to wait in excess of a year for their final payments (often up to 60 per cent of the agreed purchase price). In effect, herders are providing marketing agencies with interest-free credit.

Box 3.3: The cash and credit problems of a parastatal slaughterhouse company

Makhimpex (the Ulaanbaatar-based parastatal slaughterhouse) was by October 1993 operating at a mere 35 per cent of capacity and was planning to end slaughtering within a few days, despite the fact that the slaughtering season normally ends at the end of December. The company's Deputy Director, Mr B. Ganbold, explained that the shortfall in planned slaughter was due to strong competition from other marketing channels, and also a severe cash shortage, which meant it did not have sufficient liquidity to pay livestock companies and herders in cash by May or June (when livestock are normally bought for collection and trekking). Makhimpex needed 2.8 billion Tugrik in cash (out of a total of 5.4 billion needed by all parastatal slaughterhouses together), which was calculated on the basis of the fixed meat purchase price of 60 Tugrik per kilogram live weight (in the case of sheep and cattle). Few sellers agreed to this price, which meant that the company was forced to pay more than planned for much of the meat it did manage to buy. Cash flow was an important problem. Over the five months from animal purchase to slaughter and sale, even heavily subsidised credit at 10 per cent per month amounted to some 60 per cent interest.

Banking was also a problem. Makhimpex did not want to transfer funds to local bank branches, for fear that the funds would be used for other purposes, such as paying the salaries of local bankers and officials or for paying off the banks' own debts. In Arkhangai and Zavkhan, for example, half of the funds transferred to local branches by the Mongol Bank, on behalf of Makhimpex, were used for other local needs. This meant that the company had to send cash with messengers, by car or plane. As a result, Makhimpex was still buying animals late in July, which is inefficient, since animals are putting on weight throughout the summer and becoming more expensive.

Source: Key informant interviews in October 1993.

In addition to the problems it creates for herders, this practice also discriminates, to some extent, against private traders. The risk to a herder of providing such credit is greater in the case of independent private traders than in the case of a locally based marketing parastatal or a local livestock company (since the latter are generally more permanent in the local community). So herders are less likely to agree to such an arrangement with private traders. This means that the development of new small-scale entrepreneurs is constrained, not only by their inability to secure loans on official credit, but also by their chances of being financed by herders themselves.

3.4 BARTER TRADE AND POORLY DEVELOPED RURAL CONSUMER GOODS AND LIVESTOCK INPUT MARKETS

In response to the severe shortage of cash and the high price of borrowing on credit, most market operators have become increasingly dependent on barter trade. If you can trade some consumer goods for livestock products, your chances of selling anything to herders with little or no cash improve. To the extent that this practice allows for trade, bypassing the need for monetised exchange, it is obviously preferable to no exchange at all. However, although a response to the current cash shortage, it should be seen more as a symptom of the problem rather than its cure.

Box 3.4: Subsidised credit from a branch of the Agricultural Bank in Umnugobi

The local branch of the Agricultural Bank in Bayandalai *sum* of Umnugobi had not made a single loan to any agricultural producer, since privatisation. But it had lent subsidised credit (at around 10 per cent per month) to the local CC company (which has a debt so big that it should legally go bankrupt, according to the Deputy *sum* governor), and one loan to a small-scale shop-keeper, in order to stock her store in time for *Tsagan Sar*. The only agricultural or agricultural marketing loan made in the previous year was provided by the *sum* administration to a man to buy inputs for his vegetable garden. Many herders have savings accounts in the Agricultural Bank, but they can nevertheless not get access to credit.

The bank manager, who had received two years post-secondary training at the Economics College in Ulaanbaatar and who claimed that the Bank was run as a commercial operation, explained that herders did not qualify for credit for two main reasons: (i) that they are not legally registered economic units; and (ii) their livestock could not be accepted as collateral, because of the risk of death due to climatic disasters. A *khoshoo* was a legal economic unit, but a herders' *khoshoo* would also have trouble putting up their livestock as collateral, because they are not seen to be as safe as real estate. Other reasons for not lending very much, in this particular bank branch, included the fact that it has to use some 90 per cent of funds from the *aimag* Agricultural Bank to pay the salaries of local employees, and to pay interest on savings accounts.

Source: Based on an interview with the bank manager of the Agricultural Bank branch in Bayandalai *sum*, Umnugobi, in April 1994.

The negative aspect of increased barter trade relative to monetised exchange is that it reduces flexibility and choice for both buyers and sellers, as well as reducing incentives for specialisation. The lack of cash also means that there is little point in herders selling more than the amount required to obtain the consumer goods they actually need. For traders, investments in working capital (such as vehicles and storage facilities) become very difficult.

3.5 COST OF, AND ACCESS TO, TRANSPORT AND FUEL

Most marketing agents complain about the high and escalating cost of transport, due mainly to inflation and the devaluation of the Tugrik leading to the rising costs of imported oil. By 1994 the Tugrik had stabilised, however, and the official price of petrol in June 1994 was the same as in June 1993. Generally the cost of fuel appears to be more of a problem for herders (when they rent transport) than for traders.

A crucial problem for many traders is access to petrol, which is often allocated through the local administration, although there is less of a problem in areas where Neftconcern (the state-controlled petrol distribution company) petrol stations are operating. In one *sum* in Umnugobi, for example, where the local administration rationed fuel to certain partners, like the *ex-negdel* company or the consumer co-operative, for 100 Tugrik per litre (the state price), private dealers sold the same petrol for 400 Tugrik per litre on the black market (Kerven 1993). This situation may have been extreme, as there was no state petrol station in the *sum*, but it does suggest that access to petrol may be as important a constraint to marketing as cost, particularly for small private traders. According to the results of the survey of 36 *sum* governors, mentioned earlier, the *sum* administration is directly in charge of the allocation of petrol in approximately two out of every three *sum*.

As a result of herders' poor terms of trade and cash-flow problems, their ability to buy production inputs, such as transport to move camp or supplementary feed for animals, is limited at present. Some livestock companies assist their members with transport for nomadic moves, but the majority have to fend for themselves.. Most companies provide transport only on a rental basis.

Privatisation of former *negdel* and state organisation vehicles has in most cases meant that herders can no longer use these. Independent herders often say they would like to buy ox or camel carts, which would not only facilitate seasonal moves, but would also improve their ability to market their own products. Local manufacture is already taking place in a few areas, but the demand is high. Support for cart workshops would help reduce constraints on marketing at this primary level.

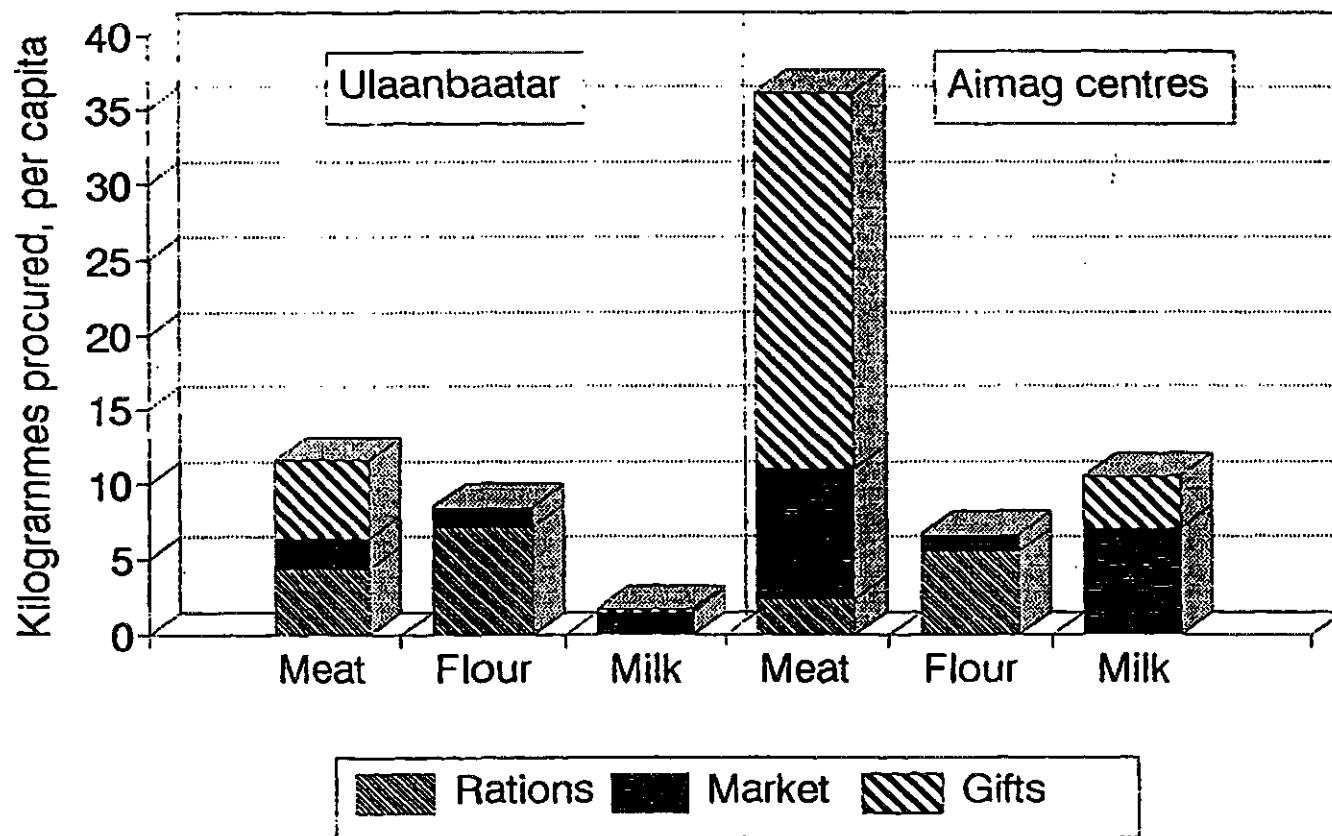
4 EXTERNAL FACTORS INFLUENCING THE DEMAND FOR PASTORAL PRODUCTS

Aside from the problems of marketing channels, changes in domestic urban consumer markets and domestic processing industries, as well as in foreign markets and export trade policies, also influence the development of livestock marketing.

4.1 URBAN CONSUMER DEMAND AND DOMESTIC CONSUMPTION

Urban consumers have several channels through which they acquire meat. The informal supply channel of relatives offering animals as gifts for household winter meat supplies (*idish*) has long been an important source of meat for urban consumers, though more for *aimag* centres than for Ulaanbaatar. Based on unpublished data generated by the former Livestock Marketing Project of IAE in a survey of 444 urban households in UB and four *aimag* centres, Figure 4.1 depicts average quantities of meat, flour and milk procured by urban households, by supply channel, for Ulaanbaatar and the *aimag* centres.

Figure 4.1: Channels of food supply in urban areas, November-December 1992



Source: Unpublished data generated by the former Livestock Marketing Project of IAE, in a survey of 444 urban households in Ulaanbaatar and four *aimag* centres.

Gifts from relatives accounted for about two-thirds of meat supplies in rural towns, but were less significant in the capital, in November and December 1992 (when most *idish* is obtained for freezing). The total quantities of meat received for household *idish* were several times greater in the *aimag* centres than in Ulaanbaatar, as were the quantities bought on the market.

There appears to be little substitution of gifts for purchased meat, since at survey sites where consumers buy more meat on the market, households also received greater amounts of meat in gifts from relatives. According to interviews with herders in the countryside, herding households determine the level of their gifts to relatives more on the basis of what they can afford to give (after home consumption and exchange needs are fulfilled) than according to the need of the recipients.

With the end of the meat rationing system in 1993, urban consumers are becoming more dependent on the free market. But average urban real incomes are declining: since the economic transition started, registered unemployment has risen to 5 per cent in Ulaanbaatar and some 15 to 20 per cent of the available labour force in *sum* and *aimag* centres, whilst wages have lost more than half of their purchasing power (which is more than the decline in meat prices relative to the overall consumer price index) (UNDP 1994). Although it is increasingly common for urban families to supplement their wages with earnings from informal marketing, the overall picture suggests that urban demand for meat may also have declined in recent times, providing that the demand for meat is not inelastic. The cross-sectional data, from the survey of urban food supply channels cited above, suggest that the price elasticity of demand (the degree to which the price influences the quantities of goods purchased) appears fairly normal in Mongolia. Figure 4.2 shows a fairly normal demand slope against the market price of meat in November and December 1992.

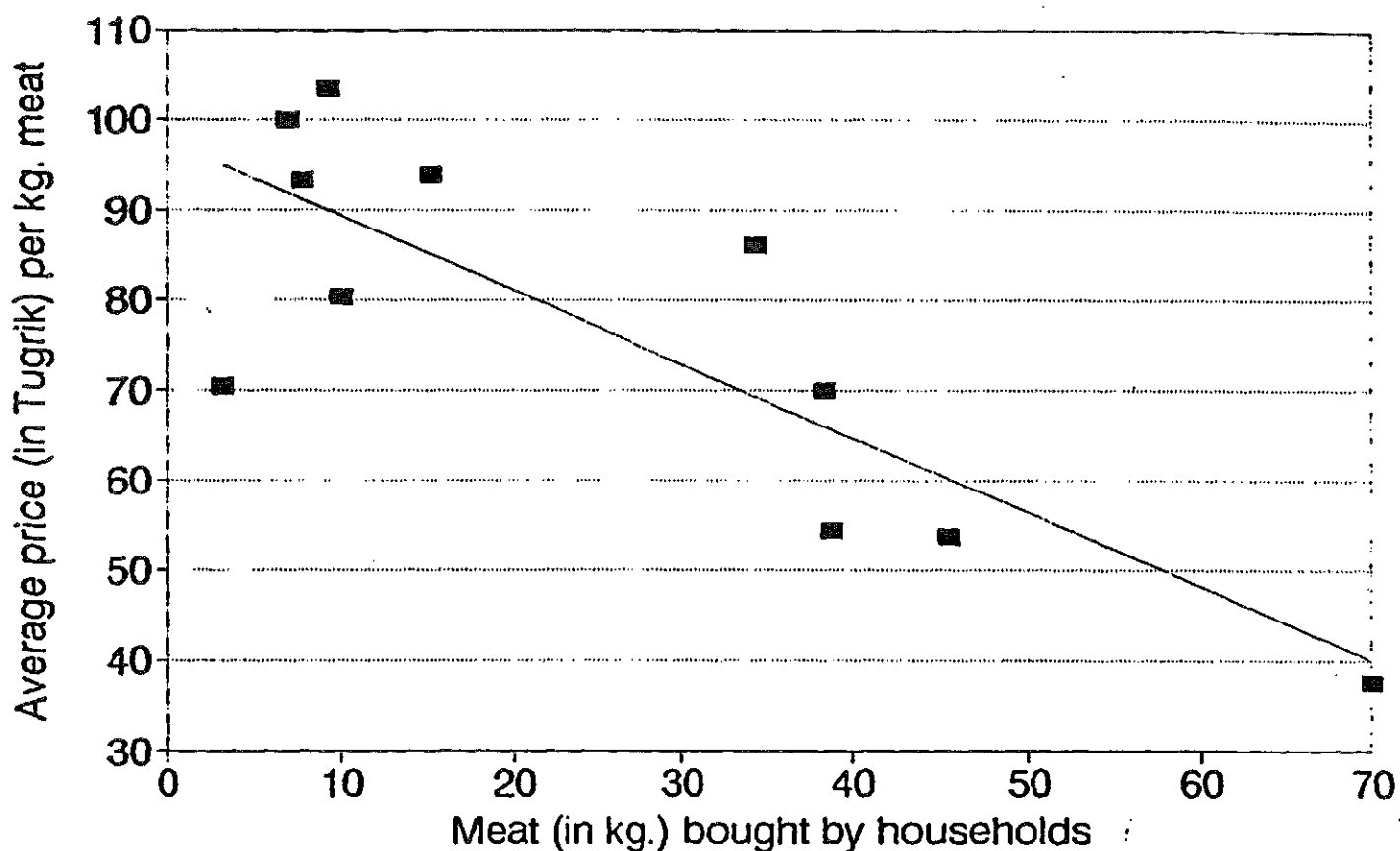
However, arguments that price regulation of meat is an important component of a national food security strategy do not appear to be supported by the available evidence. Official statistics suggest that overall meat and milk consumption in the country have generally been higher since the reforms began, although a slight decline set in after 1991 (though this decline has been less significant than in the case of livestock offtake, discussed in Chapter 2), as shown by Table 4.1. This suggests that falling incomes have not substantially reduced the consumption of meat. It must be stressed that reduced exports of meat and animals (discussed further below), together with continued state fixing of procurement prices for parastatals, have caused meat prices to decline in relation to the overall inflation in the cost of living. Consumers are more likely to spend their income on meat than on other foods escalating in price, even if that income has also fallen in real terms.

Table 4.1: Per capita consumption of food, by categories, Mongolia, 1985 and 1989-92

	1985	1989	1990	1991	1992	1993
Meat, kg/person	92	93	97	116	110	110
Milk prods., litre/person	110	121	118	122	120	120
Flour & bakery, kg/person	108	105	97	91	77	80
Potatoes, kg/person	27	27	23	18	12	8
Green veget.s, kg/person	17	22	20	10	3	4
Fresh fruit, kg/person	9	12	9	<1	<1	<1

Source: SSO 1993, 1994.

Figure 4.2: Urban demand for meat relative to price, November-December 1992



Source: Unpublished data generated by the former Livestock Marketing Project of IAE, in a survey of 444 urban households in UB and four *aimag* centres.

As can also be seen in Table 4.1, consumption of flour, bakery products, potatoes, green vegetables and fresh fruit has also declined.

Abolishing fixed prices for state procurement of meat is, of course, a sensitive political issue, because of low official salaries, but as the state share of marketing becomes less significant, so does the impact of state prices on open-market consumer retail prices. If open competition can be encouraged in livestock marketing, marginal costs and the gap between producer and consumer prices will be reduced, allowing for greater quantities to be marketed. This would, to some extent, offset the constraints on demand caused by low incomes, and cushion the impact of falling wages on the nutritional intake of the poor.

There is actually very little reason to suppose that the state procurement system for meat is significantly alleviating the situation of the urban poor, since (i) not much meat is being sold through public channels anyway (Makhimpex had, for example, not even started selling its 1993 winter meat supplies to Ulaanbaatar until late in the spring of 1994); (ii) poor people are no more likely to have sufficient free time during working hours to stand in long queues to access this

meat, than are middle-class families; and (iii) the very poor purchase relatively smaller amounts of meat, as the calorific value of other staple foods (e.g. flour or rice) is generally higher. For nutritional programmes to benefit the poor it is important that they be targeted to reach just this population group, rather than by distorting markets in a way which affects the availability of food for the population in general.

4.2 DOMESTIC INDUSTRIAL DEMAND FROM PROCESSING FIRMS

Part of the problem of poor terms of trade for Mongolian pastoral producers is due to limitations in domestic processing industry, particularly for non-meat livestock products. In general it is considered beneficial for a country to process primary raw materials before export, since this adds value to the product and reduces the cost of transport by increasing the ratio of value to weight. Processing industries in Mongolia, however, have difficulty in adapting to world market standards of efficiency and quality (despite recent privatisation of many industries), and this has resulted in their not being able to pay competitive prices for livestock raw material inputs.

Having enjoyed a supply of livestock products at fixed prices in the past, domestic processing companies now have to get their inputs from the market. Many companies have had trouble adapting to the conditions of a market environment. The recent privatisation of most industries does not appear to have made any significant changes in managers or management practices. Managers see their problems of unprofitability as resulting from the increasing cost of inputs, rather than a lack of improvement in cost-efficiency.

Most local industries were originally set up to produce a limited range of goods in large quantities, and they usually had a very specialised role within the broader economic system. Upstream and downstream processing and distribution ('marketing') were equally specialised, and today the procurement and productivity problems in industries have severe knock-on effects.

Faced by problems of unprofitability, managers commonly call for export restrictions, which is not surprising, given that they have been used to a system of raw material inputs prices being controlled by price fixing and an effective state export and import monopoly. The call for forming vertically integrated concerns is not surprising either, since the managements of most major privatised ex-state companies have persisted during privatisation and have therefore worked together in the past. Although potentially beneficial in terms of quality control, transaction costs and information sharing, the growth of such concerns amongst companies still managed by old officials with strong connections with the administration increases the risk that their influence on policy decisions will increase industrial protection at the expense of primary producers (taxing herders by suppressing farm-gate prices by means of export restrictions, in this case).

There are other ways to raise productivity in processing than by depressing raw material supply costs by means of protectionist trade regulation. The cashmere industry provides probably the best example of successful new processing and trading enterprises, with Buyan (one of several private cashmere companies) being hailed as the most successful private company in the country today. It is perhaps because cashmere is such a high value product that domestic entrepreneurs have been particularly active in this sub-sector and that the government has retained the Gobi factory as a majority state shareholding enterprise, unlike most other less profitable processing industries. This remaining government interest in the industry might also explain why an export ban on raw cashmere was reintroduced in April 1994 (unlike other livestock products), despite

the fact that cashmere industries have fared much better than other processing industries (with even the state-controlled Gobi factory making substantial profits before the ban) and that cashmere was said by most traders in the field to be the most profitable export item.

Another problem is the slow development of local primary processing industries and workshops (such as washing, separating and grading cashmere and wool, felt making, primary skin preparation - usually salting) near the primary producers. In a situation of very high transport costs due to vast distances and poor transport infrastructure, the best local response is to try to add value by means of local processing. Despite many constraints on small enterprise in rural Mongolia, some efforts at establishing rural primary processing are emerging, often with the help of foreign donors or other commercial interests. A good example is the joint venture between the Erdene company in Dornogobi and a Chinese firm to produce felt in a factory in the *sum*. As both labour and raw materials are cheap, the aim is to add value locally and reduce bulk for transport.

Foreign investment is not only beneficial in that it provides new injections of capital, but it also brings in new technologies, skills and management practices, which can all be crucial for adapting to new standards as demanded by world markets. There are, however, still relatively few joint ventures in Mongolia today, despite the liberalisation encoded in the new Foreign Investment Law. This may have less to do with discriminatory regulation against foreign investors than with the fact that the basic conditions for private enterprise remain rather undeveloped, for Mongol and foreign investors alike. As argued by a staff member of the President's Chancellery, J. Baasandash, in an article in the *Mongol Messenger* (12 April 1994), (i) implementation of the Land Law to provide for security of tenure over land and buildings would certainly help, as would (ii) reducing the quite steep taxation of enterprises and (iii) elaborating an enforceable regulatory framework for contracts, etc.

As observed in key-informant interviews on market structures and operations, it is difficult to draw a clear distinction between marketing operators or organisations, on the one hand, and livestock product processing enterprises, on the other. This is often true for private enterprises and *khoshoo*, as well as for certain parastatals (for example, the Erdenet carpet factory, the Gobi cashmere company, and the parastatal slaughter companies, amongst others, all have rural buying agents now and often organise the marketing of their final products themselves - particularly in the case of exports). Highly specialised organisations geared towards performing only one type of task are rarely flexible enough to adapt to the changes brought about by reforms and changing market conditions. Many of the constraints on development will therefore be common to both marketing and processing enterprises. What is particularly important for the development of efficient and dynamic enterprises in an open and developing market economy - aside from issues of equitable legal frameworks, pricing regimes and access to inputs like credit, fuel, information and infrastructure, as discussed above - is that all types of enterprise should have equitable access to foreign markets and hard currency.

4.3 EXPORT OPTIONS AND CHANGING INTERNATIONAL MARKETS

Aside from domestic consumer and industrial demand, a major external factor affecting the marketing environment for livestock and livestock products is, of course, access to international markets. As a result of the collapse of the CMEA trade block and, more significantly, the contraction in demand from the former Soviet Union, Mongolia suffered severe external trade shocks, with its total trade turnover more than halved from \$US 1,684.5 million in 1989 to a mere \$US 708.9 million in 1991 and \$US 722.4 million in 1993, at current prices (SSO 1994). Total export revenue also fell from \$US 721.5 million to \$US 348.6 million between 1989 and

1991. There has since been a slow recovery in external trade, with exports virtually catching up with imports (which totalled some \$US 361.5 million in 1993), resulting in an overall trade balance in recent times. Liberalisation of export policy (with the exception of live animal and meat exports) has undoubtedly been the main factor behind this recovery.

Concurrently, there has been a realignment of trading partners buying Mongolian exports. As illustrated by Table 4.2, Russia and the other former Soviet republics remain the major partners, although their share of total exports had declined from 77 per cent in the mid-1980s to 57 per cent by 1992. The other significant development has been the rapid increase in exports to China, from less than 0.5 per cent to about 18 per cent of the total over the same period. Other new markets, like Japan, Switzerland, Italy and the USA, have also grown both proportionally and in real terms, whereas the market shares of old partners, like Bulgaria, Poland, Romania, Hungary and Czechoslovakia, have all decreased, as a result of their economic difficulties and the collapse of the CMEA arrangements. The German export market has been maintained relatively well, as a result of the unification of East and West Germany.

Table 4.2: Per cent of total exports going to six selected major trading partners

	1985	1989	1992
USSR (CIS)	77	73	57*
China	0.4	0.6	18
Japan	1	3	5
Switzerland	1	1	4
Germany	4	3	3
Czechoslovakia	5	4	1

Source: SSO 1993.

By 1992, the state sector had retained control of the major share of the export market, exporting some 83 per cent of the overall total. The private sector, on the other hand, was already expanding into new markets, exporting some 42 per cent of total private exports to China and only 20 per cent to the Commonwealth of Independent States, whereas state enterprises were still exporting 65 per cent of their total exports to the CIS and only 10 per cent to China. This pattern is partly connected with institutional difficulties regarding payments and currency conversion, forcing many private operators to seek out markets for barter deals (Hahn 1993). Amongst private exports to the CIS, for example, 93 per cent took place on barter terms, as compared with only 26 per cent of public exports. The proportion of barter trade to China, however, was similar for the two sectors, with 92 per cent of private and 89 per cent of state sector exports being bartered.

The increase in trade in new export markets can not be explained by developments in the marketing of livestock. Figures for livestock and meat exports show a marked decline - particularly in those areas where private trade is replacing state procurement in the domestic market. Table 4.3 shows exports of slaughtered meat down to one tenth of their pre-1990 levels by 1993, and live animal exports all but completely choked over the same period. Intestine exports, however, did not undergo the same steady decline during the transition period, undoubtedly due to the fact that this is the only area of livestock marketing where the

government has retained an explicit state monopoly on exports. The use of quota restrictions on other meat and livestock exports (allocating the few permitted export quotas mainly to parastatals) has allowed the government to yield to domestic political pressures to hold down meat prices, as discussed above.

Table 4.3: Exports of livestock, meat and intestines, 1985 and 1989-92

	1985	1989	1990	1991	1992	1993
Livestock, thousand tonnes	24.7	21.6	20.8	20.1	0.1	-
Meat, thousand tonnes	36.8	30.5	24.3	21.8	8.3	3.3
Intestine, million rolls	2.9	3.0	2.2	0.5	2.2	1.3

Source: SSO 1993, 1994.

The reasons for export restrictions on animals and meat are clearly political; there are no convincing economic or social welfare arguments in defence of such a policy. Export markets are a source of competition, which is precisely what is needed to improve livestock marketing. Subsidising urban meat prices has a string of negative effects: (i) it increases economic inequity (particularly urban versus rural); (ii) it does little for the urban poor (or for nutritional welfare); (iii) it discourages rural development; (iv) it discourages increased meat production; and therefore (v) it ultimately disadvantages domestic urban meat consumers as well. More specifically, with respect to livestock producers and pastoral development the practice has (a) turned the terms of trade against herders (thus reducing their income); (b) reduced the market value of their main productive asset (thereby reducing their accumulated wealth); and (c) increased the relative costs of risk-taking in livestock production, forcing herders to adopt risk-reducing (and income-lowering) strategies, all of which contribute to a general impoverishment of livestock producers and the rural economy.

If livestock export policy has seriously damaged herders' terms of trade and incentives for increasing offtake and animal marketing, liberalisation of the export of other livestock products has to some extent alleviated their marketing prospects. It has indeed provided them with strong incentives to increase herd sizes - rather than just breeding performance and offtake rates - precisely for the greater production of these 'by-products', all of which will be explored in more detail in Chapter 5.

Following the liberalisation of agricultural trade and exports in August 1991 (after having previously prohibited private exports of wool, cashmere, skins and hides in December 1990 - see Box 2.6 for details), there was a sudden strong increase in exports of skins, wool and cashmere by 1992, as shown in Table 4.4. (Most livestock products for export become available in the first half of the year, so liberalisation had little effect on the 1991 figures.) The table also suggests that recovery in the exports of finished processed goods has lagged somewhat behind the 'explosion' in raw material exports, with processed wool faring worst whilst leather goods appear to have started to recover slowly and cashmere exports also expanded in 1992. A *de facto* imbalance in trade taxation may partly - though only partly - explain why this is so. Mongolia has abandoned explicit export taxation altogether, but industrial imported inputs are taxed (as heavily as imported consumer goods), and this discriminates against domestic industry. Furthermore,

differential import tariffs for different types of goods in different importing countries mean that finished products destined for Russia, Japan or Western markets face higher import duties than on raw materials in China - a phenomenon sometimes referred to as tariff escalation.

Whilst total export bans clearly delay economic recovery, a case can sometimes be made for limited export taxation of certain raw materials if a country holds a dominant position in world markets, and this could possibly increase government revenue and also prevent prices from deteriorating (see, for example, Evans with Edström 1992). Export quotas would only impact on prices, though not benefiting the income of the 'withholding' producer (and with the likelihood that other exporters would expand their production to take over more of the world market). A total export ban, on the other hand, is likely to lead to substantial losses in trade income as well as ensuring that this 'lost' income will be shifted to other producing and exporting nations only too happy to increase their own production (in response to rising prices engendered by the withdrawal of a major supplier, such as Mongolia in the world market for raw cashmere). The extent of these effects, and the optimum level of export taxation - if, indeed, there is one - would require macroeconomic modelling, which is beyond the scope and resources of the present study.

Table 4.4: Exports of major livestock raw materials and finished goods, 1985 and 1989-92

	1985	1989	1990	1991	1992	1993
Scoured wool (,000 tonnes)	5.7	3.5	2.8	2.2	7.1	5.5
Cashmere (,000 tonnes)	0.6	0.2	0.4	0.6	1.4	1.4
Sheep skins (,000 pelts)	280	289	130	131	1,049	3,301
Wool blankets (,000 pieces)	314	377	336	46	38	16
Cashmere goods (,000 pieces)	237	271	276	26	142	81
Leather clothes (,000 pieces)	322	75	87	136	122	190

Source: SSO 1993, 1994.

These macroeconomics aside, the 1994 total ban on cashmere exports had immediate negative effects on the Mongolian economy, as well as seriously damaging traders and herders alike. Cashmere was the most profitable export item to China, whereas the profit margins on other products were seen to be closing in. The price impact on herders was particularly severe in remote areas near the Chinese border, where they are highly dependent on cashmere for their income, and where they are not only affected by the fall in the domestic market price of cashmere, but also as a result of the increased distance to terminal markets (i.e. to UB instead of the nearer Chinese border to the South). For example, one herder we interviewed in Umnugobi soon after the introduction of the ban, explained that the local price for cashmere had fallen by about 50 per cent in the space of a few days after the ban was announced - from 5,000 Tugrik per kilogram to around 2,500. As a result he envisaged a fall in his only source of income by some 40 per cent, since about 80 per cent of his total marketing income derived from cashmere sales.

It has been the export of primary livestock products to China which has accounted for the boom in Mongolia's exports of agricultural products, which, in turn, has contributed to a recovery in the trade balance and a proportional shift in export markets. Furthermore, although the state sector has retained control over most exports, the private sector appears to have been quick to move in

whenever possible, showing a high degree of flexibility and ability to respond to changing market signals. Box 4.1 describes how several Mongolian entrepreneurs perceive opportunities for export and the ever changing market conditions.

Despite the keen interest in international trade on the part of private sector companies and individual entrepreneurs, several factors prevent their making a fuller contribution to economic recovery through export-led growth - not only the state control and allocation of livestock and meat export quotas, import taxes and the outright ban on raw cashmere exports, discussed above, but also the difficulties involved in accessing export licences, the time-consuming bureaucratic processes and the collusion and corruption amongst Chinese buyers and officials. In some cases these legal and bureaucratic constraints can lead to smuggling or bribery, but they are usually more likely to lead to traders giving up exporting altogether or switching to other less profitable activities. In either case, the total income of the country is reduced, as is competition amongst traders and domestic prices for these products, all of which retards livestock marketing development and affects herders adversely. Specific examples of how individual entrepreneurs experience some of these problems are described in Box 4.2.

Box 4.1: Changing international markets, as perceived by individual entrepreneurs

(Continued from Box 2.3) Ms A became involved in cross-border trading several years ago (during her time with the CC), when she traded Mongolian marmot skins and Chinese children's clothes into Russia (with the help of her brother-in-law, who worked in a Mongolian state import-export company). She then bought cosmetics and vehicles in Russia, which were sold in Ulaanbaatar as well as exported to Beijing along with Mongolian raw cashmere (her main export to China at the time). In China she would buy and barter flour and rice to bring back to Mongolia, where it was then import tax-free. In 1993, Ms A was hesitant about cross-border trading, since profit margins were narrowing, partly as a result of import taxation. She was still considering exporting cashmere (before the recent ban), but claimed to be increasingly interested in exporting construction materials, like timber, as a result of changing relative prices.

Several Mongolian exporters of livestock products interviewed in a trading station, Erlian, on the Chinese side of the border in Dornogobi predicted that barter trade with China would decrease, for various reasons. The quality of Chinese goods is poor and becoming increasingly notorious in Mongolia; increased taxation of imports, like flour, (now totalling 21 per cent in trade and import tax) has reduced the profitability of barter trade; it is difficult to get Chinese buyers to pay in cash (partly because their normal prices for Chinese goods in barter deals are overvalued relative to the Chinese market); several traders complained about the declining prices of livestock products in China; and most traders complained of unreliable partners and collusion amongst buyers and officials on the Chinese side.

Source: As for Box 2.3 and interviews with traders and truckers in Erlian, China.

The trading procedures could clearly be improved and made more fair and neutral. To the extent that this requires international negotiations and agreements, it may be a slow process, but it is certainly not impossible if the facts can be brought out and discussed openly between the parties. Even without international agreements, however, several improvements are possible and advisable on the Mongolian side. The long process of export licensing, declaration and veterinary controls could clearly be rationalised and simplified, thereby avoiding a large amount of

Box 4.2: Truckers stuck in China tell tales of red tape and corruption, home and away

The Deputy Director of a small private limited company from Ulaanbaatar, whom we spoke to in the lorry compound at the border trading station of Erlian, China, explained that the greatest problem in the export business was the cumbersome and time-consuming bureaucratic procedures involved. To export the 400 sheep skins and one tonne of camel wool which he had brought to barter for sugar and flour, it had been necessary to go through no less than eight procedures in the capital, followed by a number of procedures on the Mongolian side of the border. In UB the steps involved were: (i) a visit to an office of the Ministry of Trade and Industry, to get a licensing stamp on the export contract with the Chinese importer (fee 3,000 Tugrik); (ii) then registration at the central administration's customs office (free of charge); (iii) proceeding to registration at the UB city customs office (800 Tugrik fee); (iv) followed by a visit to Tsuchin Co., which has been contracted to process customs declarations - i.e. inspecting that the goods are what the contract says (800 Tugrik); (v) returning to the UB city customs office to certify the full declaration (420 Tugrik); (vi) proceeding, with samples, to the customs veterinary services inspection (1,500 Tugrik); (vii) visiting a central transport exchange, to register the lorry and the load (3,515 Tugrik); (viii) followed by a trip to the central office of the border police, for permission to take the lorry across the border (500 Tugrik per vehicle). Furthermore, after finally leaving the capital (which can take days) and the long journey to the border town of Zamin Uud, it is necessary to visit the local branches of most of the above organisations (paying 300 Tugrik to customs again, as well as a further 200 per person to the transport exchange and another 500 to the border police). In this case, these latter procedures took a full day, since all these offices are in different parts of the (admittedly small) town and the lorry was stuck with the border police. Aside from these Mongolian problems, there were also problems in obtaining the agreed price for the products from the Chinese importing company.

Another trader interviewed in the compound was a one-man enterprise; he occasionally hires a friend with a lorry to help him with exporting livestock products. Having gone through the same number of procedures in Mongolia and paid out similar amounts in fees, he complained that an even worse problem was that of collusion and corruption amongst Chinese importers and officials. Once across the border, the lorries are parked in a walled compound guarded by a Chinese guard. The Mongolian's are not allowed to leave the compound to go to the market to sell the goods, nor to return to Mongolia with any of their goods. This puts them at a disadvantage in bargaining, despite pre-existing contracts between exporter and importer stipulating prices and quantities. These are apparently rarely honoured by the Chinese importers, who will usually complain about the quality of the goods. The Mongolians also complain about the quality of Chinese goods, but since any quality inspection is carried out on the Chinese side, their complaints carry less weight. If the Mongolian exporters reject the conditions of the Chinese importer, they can try to find new traders in the town, but they claim that this is difficult because the Chinese importers are said to have agreed on maximum buying prices. Furthermore, it is dangerous to leave the lorry unattended in the compound at night, as thieves climb the wall to steal from the lorries, whilst the guard looks the other way.

Our Kazakh acquaintance, Mr Y (referred to in Box 2.4) knew ways of circumventing some of the bureaucracy involved in exporting. He and his brother were once caught smuggling cashmere across the border and ended up in a Chinese jail. They were lucky that their Chinese importer managed to buy them free and even paid them for the goods (as pre-arranged). A normal incentive payment for smuggling a big load of cashmere was said to be 10,000 yuan. Mr Y also knew of ways to export meat to Russia, though this is quite difficult. One of his friends had recently managed to obtain a licence for an export quota of 20 tonnes of meat, by agreeing to carry five of the tonnes on behalf of the official providing the licence.

Source: As for Box 2.4 and interviews with traders and truckers at the border trading station of Erlian, China, in January 1994.

duplication and saving time and money. More facilities to process export applications nearer the borders would help those traders not based in the capital. Encouraging Chinese importers to carry out their quality inspections on the Mongolian side of the border would also make the negotiations more equitable, as would establishing a 'neutral' trading zone on the actual border, with both Chinese and Mongolian official representation, from which either party has the freedom to withdraw (with their goods) if agreement on terms and prices can not be reached.

In summary, factors external to the domestic market appear to have changed in ways which have constrained the marketing of animals but increased the marketing of primary livestock products. Aside from actual demand, these trends have also been influenced by trade policy parameters and financial policy and institutions, as well as the pricing policies and practices of major established domestic marketing agencies and industries, the latter all rooted in political factors and the historical sequence of the Mongolian policy reforms.

The economic and institutional environment for trade and marketing in Mongolia retains several important constraints, which, despite the ambitious privatisation programmes, have hampered the development of efficient resource distribution and exchange based on market mechanisms. In other words, the change in the mode of ownership of the means of production has not automatically led to the rapid development of an efficient system for free exchange based on the market forces of demand and supply under a regime of free market clearing prices, nor to rapid or significant changes in the management of many privatised firms. This, in turn, has had a severe negative impact on pastoral producers and worsened their terms of trade dramatically. They have responded in perfectly rational ways, even if these are still poorly understood amongst many policy-makers and advisers. The next chapter aims to describe these responses, as identified through field research, and provide a background against which agricultural policy for the livestock sector might be reviewed.

5 SUPPLY FACTORS INFLUENCING MARKETING AT THE LEVEL OF PRODUCTION SYSTEMS

Changes in the socio-economic fabric of the pastoral sector have resulted in producers applying new production rationales and marketing strategies to meet the shifting relative needs of home consumption and exchange of pastoral products. Whereas, under the collective system, major decisions about production and management were taken by the management of the collectives (under considerable influence from political decisions from officials higher up in the centralised planned economy), today the primary producers - the herders - are themselves managers and decision-makers in production and marketing at the farm-gate level. However, relatively small private herds, deteriorated terms of trade and an increased financial burden from the shifting of the cost of production risks back onto individual herding households, all combine to influence the marketing behaviour of herders in complex ways. A model of livestock marketing decision-making, based on rapid and participatory rural appraisal field work, is presented below. Statistical evidence from specifically designed household marketing surveys is also used to back up the conclusions reached with the model, from which specific policy implications emerge.

5.1 NEW PRODUCTION RATIONALES: A 'MODEL' FOR DECISION-MAKING IN MARKETING

As a result of the shift from collective/public to private ownership and management of livestock, Mongolian pastoralists are becoming more comparable to those of other regions of the developing world. Since remuneration for production has shifted to the individual (or the household) to realise through market exchange and since decisions about investments in inputs, etc. have also shifted back to the primary producers, basic strategies in production and exchange have also changed fundamentally and (in many respects) become more traditional.

A range of different factors normally influence market participation amongst pastoralists, including those internal to the household economy and external factors imposed on herders by their wider context. Internal factors include the inherently reproductive nature of livestock as a store of wealth - where herd production dynamics influence the level of offtake and, hence, the likely level of market participation - as well as the extent to which household subsistence needs (and the relative benefits of home consumption versus marketing for exchange) influence the level of livestock sales by herders. External factors include a range of aspects affecting the pastoral environment; from climatic disasters and livestock disease to land policy, infrastructure, market development, urban demand, prices and taxation policies (Kerven 1992). In Mongolia current levels of livestock sales by herders appear to be kept to a minimum for both internal and external reasons. The latter have been discussed at some length in the previous chapters. The remainder of this chapter will discuss mainly internal aspects of the Mongolian pastoral (household) economy affecting the degree of herders' market participation, and the way these factors interact with external factors, such as prices or climatic calamities.

When it comes to strategies for securing their livelihoods, Mongolian pastoralists appear on the whole to have a fairly predictable hierarchy of priorities not dissimilar to that of rural households in other developing countries. The Mongolian order of priorities goes somewhat as follows:

- 1 Every-day survival** - whatever is required to put a minimum amount of food on the table today, will be done. This is normally achieved by home consumption of meat and dairy products combined with exchange of livestock products (and livestock, if necessary) for non-pastoral staples, like flour, rice, sugar and salt.

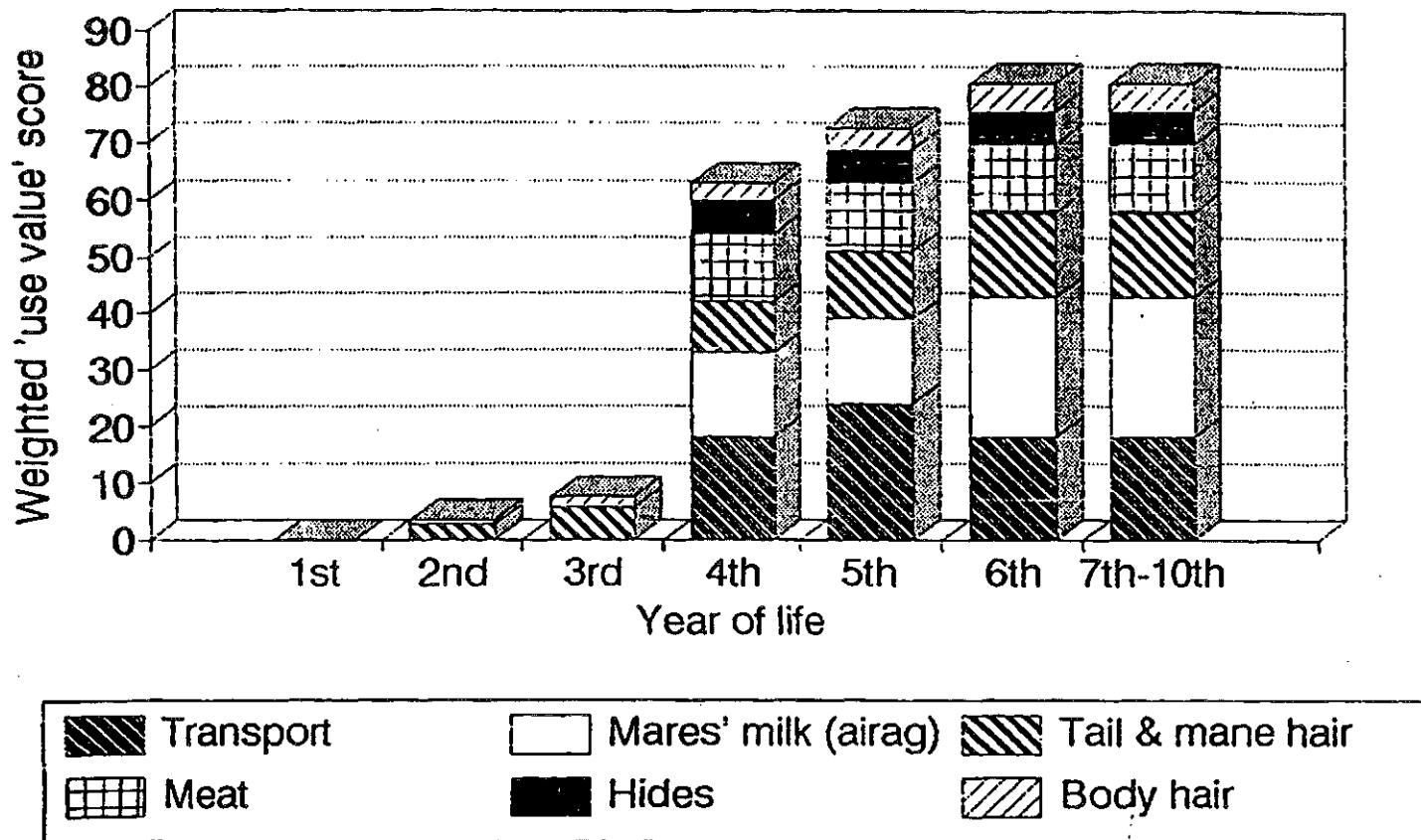
- 2 **Occasional necessary social or medical expenditures** - such as wedding ceremonies, funeral prayers (often for the death of new-born infants) or medical expenses (such as travel for childbirth) will often necessitate the sale of livestock.
- 3 **Long-term livelihood security** - whatever actions will minimise serious risks to future food and income security (such as certain veterinary expenditures, purchases of emergency fodder or rental of transport for seasonal pasture migrations) will be undertaken, if possible.
- 4 **Long-term sustainable growth in incomes and assets** - usually meaning long-term growth in private herds of livestock, will be pursued whenever possible.
- 5 **Additional consumption of consumer goods or meat** - once these other objectives have been secured. If prices are considered too low and are expected to rise, households often choose to hold on to animals in the hope of increased future returns, though there is little point in holding on to other animal products.

Against this background, a herding household's strategies are highly dependent on the variety of productive and reproductive values of different animals, which change (i) relative to each other over the animals' life spans; and (ii) as a result of changes in the relative market values of various products over time.

To begin with, in considering animals' reproductive value versus the value of slaughtering or sale, it is essential to differentiate between male and female, as well as young and adult animals. In terms of their contribution to the herd's reproductive capacity, a large proportion of male animals, as well as barren females, can be slaughtered or sold without this affecting the numbers of new offspring (in fact, slaughtering or selling these 'surplus animals' can increase the reproductive capacity of the herd, in aggregate, as reduced grazing pressure allows the land to sustain a higher proportion of reproductive females). Depending on the price of livestock relative to other consumer goods, these animals may be sold and/or eaten by the household. In the interests of achieving long-term household livelihood security and a sustainable herd growth, most herders will first slaughter adult males, barren females and weak animals, and then (more reluctantly) younger males and females nearing the end of their reproductive life, followed by (and only if absolutely necessary) younger reproductive females. If, in order to achieve the basic priorities for survival, a household has to use animals of significant reproductive value, this can seriously affect the reproductive capacity of the herd, as may happen amongst very poor herders.

In considering other productive uses of animals, however, the picture becomes slightly more complex, because all animals produce other non-meat products and have different 'use values' to herding households, depending on species, sex and age. Camels, horses, cattle and yaks (included with cattle here) provide transport and traction power (used during pastoral moves), as well as body hair (or wool - in the case of camels) and hides (when slaughtered for home consumption). Sheep and goats provide wool, cashmere and skins. Although there is some domestic use of some of these products (such as felt making or leather ropes for saddlery), the vast majority are marketed. In addition, the reproductive females of all species provide milk, which is used to produce a variety of dairy products, including *arol* (dried curd cake), *tarak* (yoghurt), *urum* (cream) and *airag* (fermented mare's milk), most of which is consumed by the household.

Figure 5.1: Relative importance of benefits from rearing mares



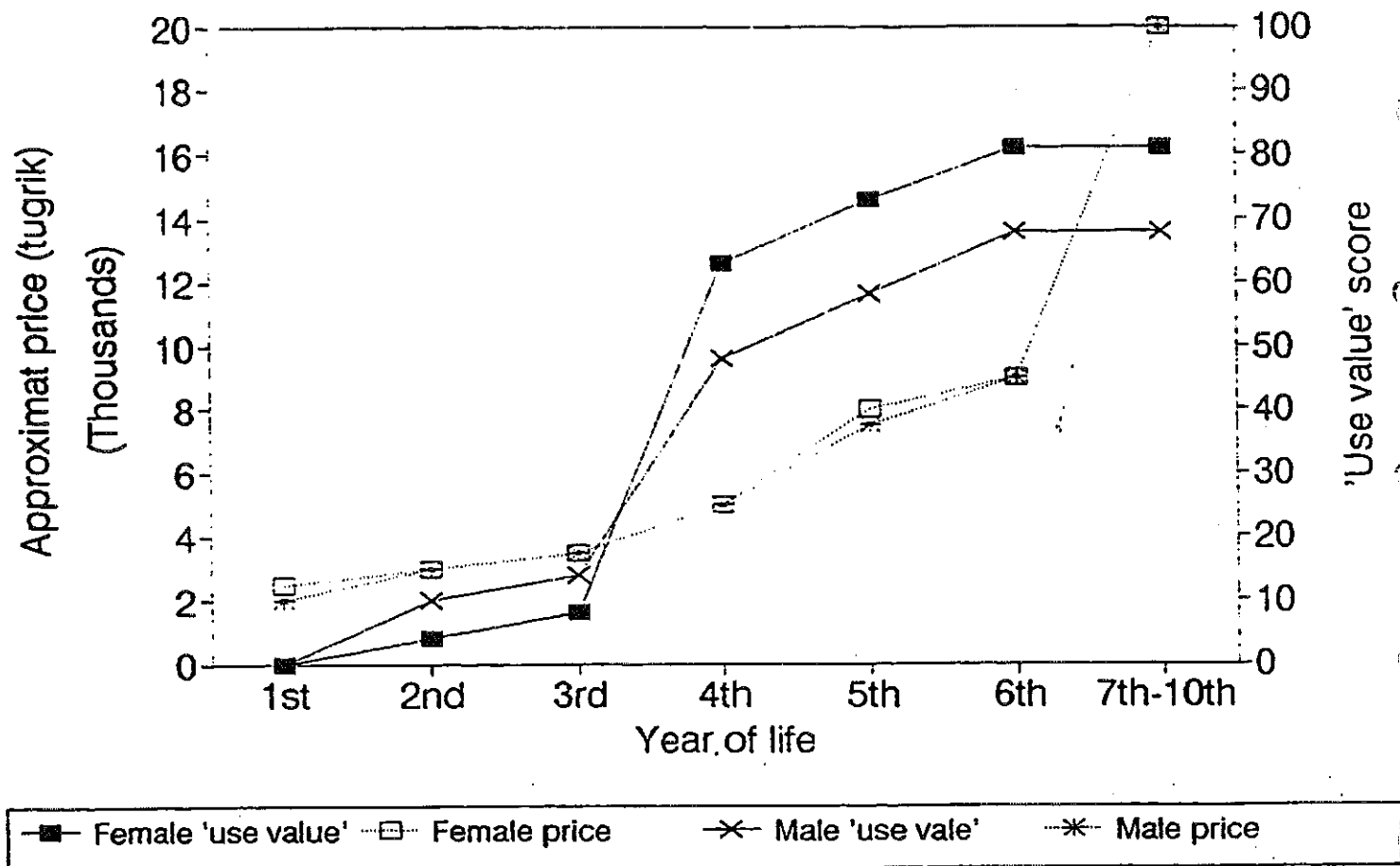
Source: Participatory rural appraisal exercise with a herder near Kharkhorin, Uvurkhangai, July 1993.

The production of all these products provides incentives for delaying the slaughter or sale of livestock, whether male or female, until after they have reached maximum weight (the primary determinant of market value),² or until the end of their reproductive life, in the case of females. Figure 5.1, shows how the benefits of keeping a mare change throughout its life-cycle (as viewed by a Mongol horse-breeder), while Figure 5.2 indicates how both 'use value' and market prices of

2 Aside from the market value of animals rising with age (until maximum weights are reached), their market values also fluctuate over the seasons (as discussed in Chapter 3), being lowest in the spring (when animals weigh the least) and reaching their peak in the late autumn (when the slaughtering season begins). Consequently, herders prefer to sell livestock late in the year, if possible, whereas meat traders prefer to buy early in the season, in order to fatten animals during trekking (as discussed in Chapter 2). Buyers who trek animals also prefer to buy females rather than males, since the latter put on less weight by the autumn, as a result of the extra energy expended throughout the mating season, whereas herders prefer to sell males. With herders' new powers of decision-making in marketing (resulting from privatisation), established buyers find it increasingly difficult to purchase sufficient - or 'planned' - quantities of animals on their own terms. This may contribute to the decrease in levels of meat sold through official channels. Other reasons for this decline, relating to external factors such as pricing and demand, are discussed in Chapters 3 and 4.

horses are seen to vary for different age groups and by sex. Both graphs were constructed on the basis of herders themselves classifying the age and sex groups of animals (by constructing life-cycle diagrams), scoring the reported benefits derived from each category, weighting these scores for benefits (in terms of their overall importance to the household) and estimating market prices for the different groups.³ It is interesting to note that these relative differences in productivity, by sex and age, in terms of non-meat products, reinforce the preference to sell or eat male animals rather than females and older ones rather than the young, and that the most important difference between the 'use value' of male and female animals, namely the production of milk, is directly linked to the reproductive aspects of livestock.

Figure 5.2: 'Use value' score and estimated prices of horses by age and sex group



Source: *ibid.*

3 The scoring of benefits was done in tabular form, with each benefit being valued on a scale of one to ten for each category of animal, row by row. When all categories had been valued, the herder was asked to reckon the overall importance of each benefit to the household. This overall score was then used as a weight, and each individual score in the table was multiplied by the overall score for that particular benefit (for example, transport was considered more important than body hair, and was therefore emphasised by weighting the scores).

Although Figure 5.2 shows the relative perceived 'uses' and market values of animals at each stage of the life-cycle, it does not take into account either their reproductive value or the age-specific life expectancy at different stages. For each actual decision about marketing a male or a barren female from the herd (assuming that slaughters for home consumption are completed), the expected production flow of products like hair, wool or transport has to be compared with the perceived current and future market values of the animal (as estimated by expected weight gain plus expected future changes in market prices), and discounted by the probability of the animal's death as well as the urgency of the current need for exchange. In decisions about the sale of fertile females, the expected number of future offspring plus future milk supplies are also taken into account.

Most herders argue that the general deterioration in livestock prices, relative to those of other consumer goods, leads them to refrain from marketing as much as possible - at least until prices improve. When asked about decisions on slaughter for home consumption versus selling animals, the normal response was that slaughter for home consumption is dependent on the size and structure of the household, that it is kept to a minimum and that only after household needs have been met (or providing the household is confident that its needs can be more than met with available surplus animals) do decisions about live animal marketing become relevant. This situation differs considerably from what is common amongst many other pastoral societies, for example in the African Sahel, where nomads often exchange animals for cereals in order to increase the caloric intake through exchange, rather than eating their animals themselves. This may be a result of the poor terms of trade for Mongol herders (i.e. that the 'normal' caloric gain from converting meat into flour or rice through exchange has been eroded), but possibly also a result of their age-old preference for meat.

In summary, three dimensions are of relevance to an informative model of Mongol herders' decisions about marketing livestock today, namely: (i) a household's current situation as regards fulfilling its hierarchy of priorities, set against (ii) the availability of different types of animals and their perceived relative (present and discounted future) 'use values' and exchange values, which in turn are influenced by (iii) relative prices as between pastoral and non-pastoral consumer goods as well as between different types of pastoral goods (and the way these are expected to change over time).

Each household has a target minimum level of consumption which has to be achieved if survival is to be secured. This can be achieved either through home consumption or through market exchange, in transactions ranging from the sale of non-meat livestock products to adult males and barren females, to young males and then, if absolutely necessary, to reproductive females. Each decision to sell an animal trades the urgency of the need for exchange against the expected future and present values of the animal and its additional products, and thus also depends on the convenience of the sale and the price offered (as well as expectations about future price changes). After a minimum level of consumption and other 'necessary' expenses are covered, households can choose to consume more - either through home consumption or exchange - or to hold on to animals and maximise the production and marketing of secondary livestock products, or in the hope that livestock prices will increase. On the other hand, very few herders store other livestock products, since this is made difficult by their mobile lifestyle.

This model of current livestock marketing decision-making, which was constructed with the help of numerous informal interviews and rapid and participatory rural appraisal techniques, suggests a number of specific testable hypotheses:

- 1 In the present economic climate of market imperfections, low animal prices and perceived small herds, households meet their consumption needs by home consumption as far as possible, with the result that (i) most animal offtake is for home consumption, and (ii) this consumption will be correlated with family size.
- 2 Where exchange is required, herding households prefer to sell animal by-products in the hope that livestock prices will recover, with the result that (i) the marketing of these products accounts for a major proportion of household marketing income and (ii) income from these sales will be positively correlated with the size of household herds, whereas (iii) income from animal sales will not.
- 3 As a result of this relationship, herders at different levels of wealth (i.e. with different sizes of livestock holdings) deploy different marketing strategies. More specifically: (i) wealthy herders (with large herds) sell no more animals per household, on average, than do 'middle wealth' herders (with more average-sized herds), since their non-meat marketing income more than suffices to meet basic household priorities; (ii) poor herders often have to sell or eat more animals than they would like in order to meet their basic consumption needs, with the result that they deplete their surplus male animals more quickly; and (iii) have higher offtake rates; as well as (iv) higher rates of marketing per head of livestock than wealthier herders.

In extreme conditions this can compromise the reproductive capacity of the herd, and may contribute to a more unequal distribution of animals over time.

As these hypotheses were beginning to take shape during the early stages of field work, a series of limited household-level livestock marketing surveys were designed, with inputs from a broad team (Kerven *et al.* 1993), in order to test whether the hypotheses fit with reality.

5.2 METHODOLOGY APPLIED IN HOUSEHOLD LIVESTOCK MARKETING SURVEYS

Four small-scale household marketing surveys were carried out as a way of generating primary field data to describe relationships and test particular impressions about herder marketing strategies. The target size of the surveys was limited to 20 households in each local area, because of the practical difficulties anticipated in completing the surveys under the harsh conditions of vast distances, cold temperatures and limited access to accommodation. The sample sizes have proved sufficiently large, however, to draw a number of conclusions with reasonable statistical certainty.

Research sites, as indicated on Map 1, were selected in two stages. Two of the first sites, Kharkhorin (in Uvurkhangai *aimag*) and Altan Bulag (in Tuv *aimag*), were selected as part of another socio-economic survey for an Asian Development Bank improved livestock feed project (PALD 1993), during which our particular task was to focus on marketing. Both are located on the central forest-steppe zone, with Altan Bulag situated near the capital Ulaanbaatar. A third site, Khishig Undur (in Bulgan *aimag*), lies in the somewhat more productive Selenge-Onon ecological zone to the north, whilst the Bayan Tsagan site (in Bayan Khongor *aimag*) is located in the far south-west, where the Altai mountain range peters out in the Gobi desert. Not only is this site far from the capital, whilst still being in the same 'marketing region' (with marketed livestock trekked to UB), but it also suffered a severe snow storm, or *dzud*, during the early spring (resulting in aggregate livestock losses of some 40 per cent) which allowed us to study the impact of this shock on livestock marketing in the area.

The timing of the surveys was between July and November 1993, and the questions related to sales during the preceding year, which household members were able to recall (they appear to have a surprisingly good recollection of sales, as these are seasonal and can be linked to other important events in the herding calendar). As most sales of livestock products like animal hair, as well as of live animals for trekking, are completed by July, and since the main local slaughter season begins in late November, most sales reflected animal sales for the mid-1992 to mid-1993 season, while sales of skins and hides reflected the by-products from animals slaughtered in the winter of 1992/93 plus a few sold in the summer of 1993. Even in the last survey, carried out in November in Bayan Khongor, the 1993 local winter slaughter season had not yet started. The survey sites are thus fairly comparable in that, by and large, they reflect the same seasonal marketing cycle.

The selection of households was random. The first survey, in Kharkhorin, was undertaken by opportunistic selection of *ger* from as broad a geographical spread as possible from within the *bag*, since limitations on time and competing requirements for the vehicle (amongst different team members simultaneously carrying out different tasks) necessitated a pragmatic 'piggy-backing' approach. Cross-checking households against wealth ranking exercises for the ADB survey (PALD 1993) suggested that the households selected reflected a fairly representative cross-section of the local community. In the remaining three sites households were picked at random from cards. At the Khishig Undur site, six households were eliminated from the sample after completion because of a serious enumerator bias (one researcher had failed to pursue questions about non-meat product marketing).

The questions asked of households included questions about family size and structure, herd size by species, animals sold by species, livestock products sold, channels of marketing, month of sale, and prices received. Further questions about home consumption and the sex and age composition of herds were added in the surveys in Khishig Undur and Bayan Tsagan, together with specific questions about livestock losses in the Bayan Tsagan survey.

The few caveats in this methodology (namely, sample selection in the first survey, the fact that surveys were not conducted simultaneously, or the enumerator bias affecting part of one survey) are not judged sufficiently damaging to have seriously affected the quality of the remaining data or the results obtained. In fact, when viewed against the background of stringent limitations on time, staff and resources, the data and results obtained are encouragingly satisfactory.

5.3 RESULTS OF HOUSEHOLD MARKETING SURVEYS

The results of the surveys are largely consistent with the model described earlier. Supportive evidence is provided for the hypotheses listed above, and presented under the following sub-headings.

5.3.1 Hypothesis 1: Home Consumption of Meat Predominates over the Marketing of Offtake

The perception that the majority of livestock offtake is used for home consumption of meat is supported by the results of the marketing survey. As Table 5.1 shows, only 246 live sheep and goats had been sold, amongst 73 households from four different areas of the country, whereas a total of 479 skins were sold (representing 66 per cent of all skins leaving the household herd - those on the backs of small live animals plus skins sold). Since it is very rarely indeed that herders market slaughtered meat separately, this suggests that in excess of 60 per cent of offtake is used for home consumption of meat (the real figure may well be higher as a number of skins

and hides are also used in the *ger* and some are destroyed by birds and wildlife). A large proportion of households in these sites marketed no live animals at all during the year and slaughtered animals purely for home consumption.

Table 5.1: Live animal and skin and hide sales, as an indicator of home consumption of meat amongst 73 herding households in four sites, 1992-3

	Sheep and goats	Large animals
Animals sold (head)	246	39
Skins or hides sold (pelts)	479	50
Pelts as a percentage of the total	66	56

Source: Primary field data, from livestock marketing surveys, 1993.

Aside from the fact that offtake is constrained by herd size, part (ii) of hypothesis suggests that slaughter for *idish* will be strongly determined by the size of the herding household itself. As Equation 5.1 below shows, the amount of meat slaughtered for *idish* is positively associated (at a high degree of statistical significance) with the size of herding households, even when controlled for the size of household herds and household marketing income.

Equation 5.1: Determination of household home consumption of meat, *idish*

<i>Idish</i> = Log of herd size (<i>bod</i>) + Family size (<i>capita</i>) + Log of marketing income (<i>Tg</i>)			
X Coefficients:	0.925	0.269	1.358
Students' T values:	(2.21)*	(3.31)*	(3.00)*
R squared = 74 per cent	Sample = 33	Degrees of freedom = 29	

Notes: The sample for this multiple regression is limited to the Bayan Tsagan and Khishig Undur surveys, since questions on the home consumption of meat were added only in the second pair of surveys. '*Bod*' is a Mongolian standard measure of herd size - a 'large animal equivalent' - with the following conversion factors: 1 camel = 1.5, 1 horse = 1, 1 cattle/yak = 1, 1 sheep = 1/7, and 1 goat = 1/10.

* = A degree of statistical probability of above 95 per cent.

Source: Primary field data, from livestock marketing surveys, 1993.

What also emerges from Equation 5.1 is that similar households, in terms of herd and family size, but with different marketing income, will not use this income to substitute purchased foods for own meat, since the relationship between income and *idish* is not a negative one. Two explanations for this appear plausible, namely (i) that more productive herders can generate higher incomes and can also afford to slaughter more meat for home consumption than less

productive herders; and/or (ii) that the different predisposition to consumption of different households makes some both eat more and market more, whereas others save on both home consumption and exchange.

Whether either or both of these explanations are correct, the evidence supports the hypothesis that, though constrained by herd size, households determine the level of offtake for *idish* on the basis of household needs, but without substituting purchased foods for home consumption of meat.

5.3.2 Hypothesis 2: Non-Meat Product Sales Predominate in the Household Economy

What clearly emerges from the surveys is how diverse the range of products for marketing really is in the household economy, with wool, cashmere, hides and skins being particularly important sales items for most households. Table 5.2 provides an overview of this range of products, average unit prices, the proportion of herders selling each particular product and the average total income from these. The proportion of herders selling animals is limited, with the exception of those selling sheep (45 per cent of households interviewed), whereas the vast majority sold wool (95 per cent), cashmere (84 per cent), hides (77 per cent) and skins (67 per cent). Although sellers' incomes from their animal sales were quite substantial, amongst those who did sell animals incomes from other livestock products were also significant - particularly, since most herders sold a range of these products.

Table 5.2: Summary aggregate livestock marketing statistics for 73 herding households in four sites, 1992-3

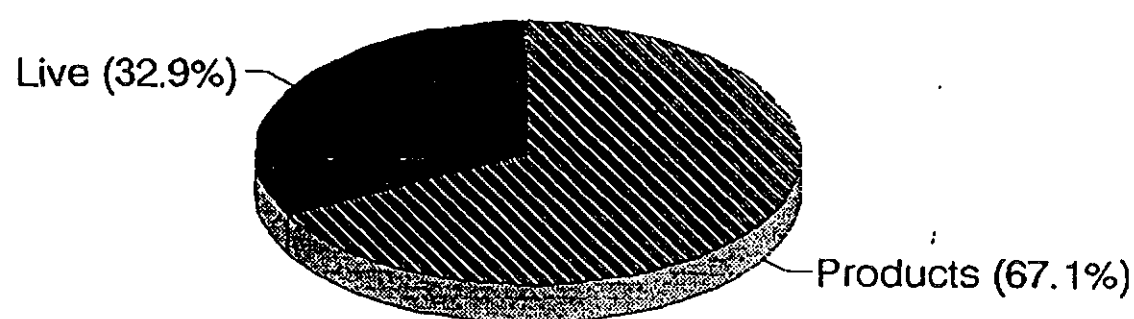
	Unit	Units sold	Total value (Tugrik)	Avg. unit price (Tugrik)	Sellers (n)	% of herders selling	Income /seller (Tugrik)
Sheep wool	kg	6,499	327,920	50	69	95	4,752
Cashmere	kg	463	585,380	1,265	61	84	9,596
Body hair	kg	209	4,778	23	29	40	165
Hides	pelt	50	43,800	876	56	77	782
Skins	pelt	479	185,995	388	49	67	3,796
Milk	litre	10,950	58,500	5	12	16	4,875
Airag	litre	6,800	144,000	21	18	25	8,000
Camels	head	1	12,000	12,000	1	1	12,000
Horses	head	16	302,000	18,875	12	16	25,167
Cattle	head	22	508,800	23,127	12	16	42,400
Sheep	head	210	557,700	2,656	33	45	16,900
Goats	head	36	35,750	993	8	11	4,469

Source: Primary field data, from livestock marketing surveys, 1993.

Part (i) of hypothesis 2 predicted that livestock product sales were the primary source of marketing income, which turns out to be true for all the households taken together. As shown in Figure 5.3, about two-thirds of total marketing incomes amongst the 73 households, taken in aggregate, was accounted for by non-meat livestock product sales. Furthermore, livestock

product sales - rather than live animal (or meat) sales - form the most significant proportion of marketing revenue in each of the survey sites, with the exception of Khishig Undur, as shown in Table 5.3. This may be related to the fact that this site is located reasonably near to the town of Erdenet (which has the highest per capita income in Mongolia) and that this region has particularly productive lush pasture and reasonably large household herds. Income from animal sales was highly variable at all sites (standard deviation in incomes from live animal sales is shown in the row two of Table 5.3) and a large proportion of herders marketed no live animals at all throughout the year (see bottom row of Table 5.3).

Figure 5.3: Composition of marketing income (73 households)



Source: Primary field data, from livestock marketing surveys, 1993.

Given the high dependence on livestock product marketing from the viewpoint of herders' food security and income, the marketing of livestock products is at least as important as the marketing of live animals, at present. Some caution has to be exercised in de-emphasising the importance of meat marketing, however, since the low levels of animal marketing relate partly to serious imperfections and distortions in the meat trade, which are less pronounced in the case of livestock products.

Table 5.3: Average composition of marketing incomes amongst 73 households in four research sites, 1992-3

Research Sum: Aimag:	Altan Bulag Tuv (Central)	Bayan Tsagan Bayan Khongor	Khishig Undur Bulgan	Kharkhorin Uvurkhangai
Average animal sale income	4,900	12,393	63,029	10,000
Standard deviation	6,562	15,701	71,258	14,126
Average product sale income	13,267	27,123	22,614	12,199
Standard deviation	7,325	23,926	15,145	6,816
Average total marketing income	18,167	39,516	85,643	22,199
% animal sales in marketing	27	31	74	45
Sample of households (n)	20	20	14	19
% of herders selling animals	50	60	79	58

Source: Primary field data, from livestock marketing surveys, 1993.

In the case of non-meat livestock products, one would expect sale levels to increase with increasing herd size, since there are few alternative and productive ways of using surpluses of these products in the home, as predicted by part (ii) of hypothesis 2. This is supported by the fairly strong linear relationships between the size of private sheep or goat herds and the quantities of wool or cashmere sold by families. As described by Equations 5.2 and 5.3 below, the sizes of private sheep and goat herds appear to explain 77 and 66 per cent respectively of the variability in the amount of wool and cashmere sold by households. The fact that the price received for these products, by different households, does not seem to significantly influence the amounts sold, suggests that the vast majority of production is sold almost regardless of the price. This is not the case for dairy products, however, and although the great majority of households have a seasonal surplus production of milk, few actually market these products (see Table 5.2), since marketing appears to be constrained more by difficulties of finding sufficient market access than by volume of production.

On a more general level, the relationship between income from the marketing of all non-meat livestock products and private herd size (as measured by head of livestock) appears reasonably close at all four sites. Approximately 58 per cent of variability in incomes from livestock product marketing (as expressed by R squared) could be explained by the size of private livestock herds, when regional differences were controlled for by the use of dummy variables. A scatter plot diagram of livestock product marketing income versus private herd sizes is shown in Figure 5.4.

Part (iii) of hypothesis 2 suggests that, as a result of the preference for home consumption over marketing of livestock (supported by hypothesis 1) and the positive relationship between herd size and non-meat product marketing income (shown for part (ii) of hypothesis 2), a close relationship between herd size and live animal sales appears unlikely. A bigger herd of animals may increase the total number of animals surplus to breeding requirements (which could be slaughtered or sold), but it also increases the yields of other marketable livestock products, such as cashmere or wool (which can be sold, bringing in a higher total marketing income), and thus

reduces the need to market live animals. After basic necessities have been procured, the incentives for selling otherwise productive livestock for cash should decline, since a mobile lifestyle, an inefficient banking system and high rates of inflation all combine to reduce the usefulness of money as a store of wealth. That the productive 'investment' nature of livestock reduces pastoralists' marketing incentives has also been argued with regard to pastoral production systems in other parts of the world (Doran *et al.* 1979; Perevolotsky 1986; Kerven 1992). This would be expected to be even more pronounced in an environment where barter trade forms the basis of the majority of exchange, with herders being paid mainly with goods such as flour, rice, tea, sugar and cloth.

Equation 5.2: The linear relationship between kilograms of wool sold by herders and the size of private sheep herds (in head of sheep)

Kg. wool sold = No. of private sheep + Price of wool received + State farm dummy			
X Coefficients:	0.94	-0.42	101.3
Students' T values:	(11.5)*	(-0.6)	(2.7)*
R squared = 77%	Sample = 67	Degrees of freedom = 63	

Note: Ex-state farm members tended to market substantially more wool than independent herders. However, they often leased substantial numbers of sheep belonging to the former state farm and had to fulfil wool production quotas, at fixed prices, as part of their lease conditions. Not surprisingly, their levels of wool sales will be less closely related to the size of their private herds, so using a dummy variable to identify these herders allows us to 'control' for this 'unusual' aspect.

Source: Primary field data, from livestock marketing surveys, 1993.

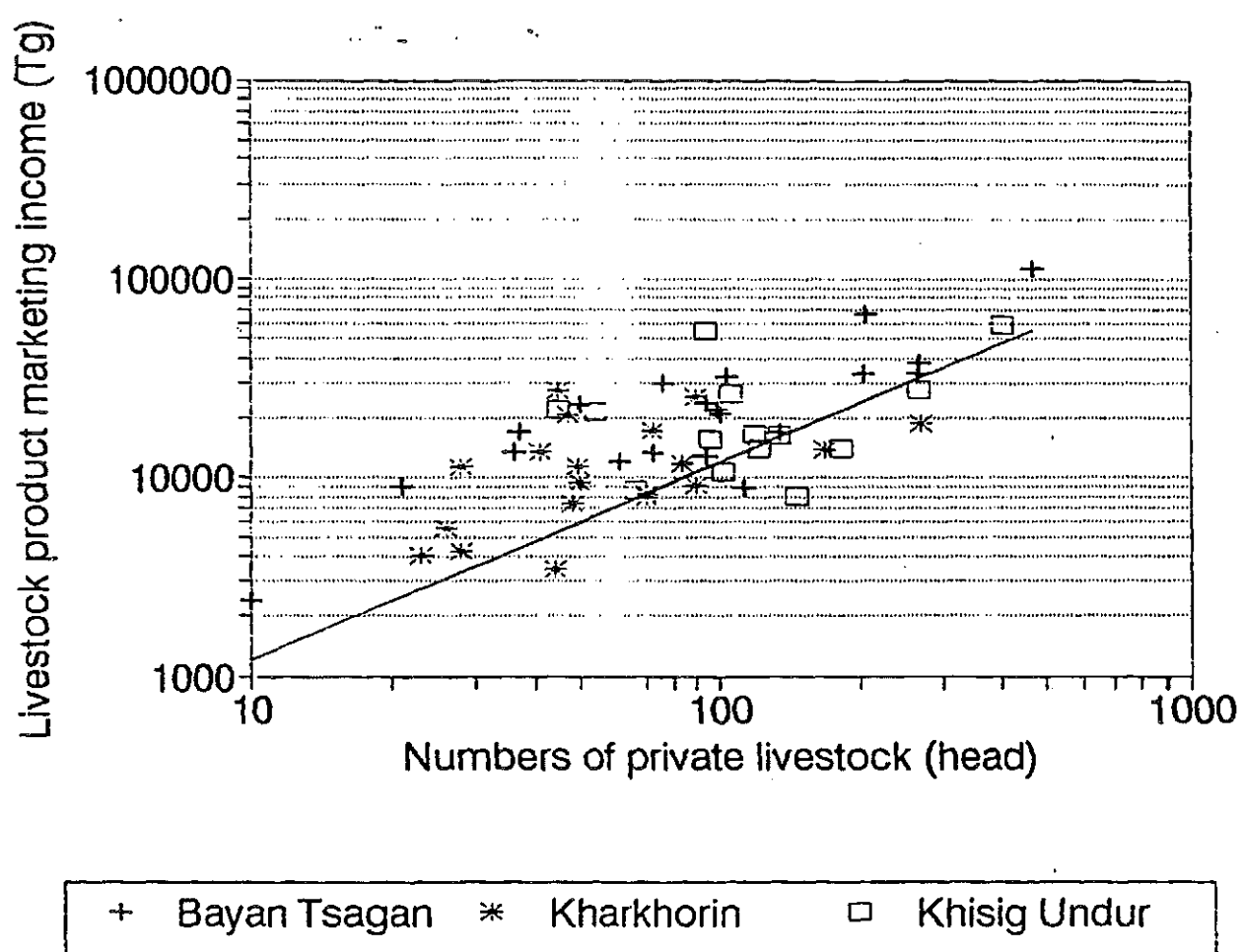
Equation 5.3: The linear relationship between kilograms of cashmere sold by herders and the size of private goat herds (in head of goats)

Kg. cashmere sold = No. of private goats + Regional dummies		
X Coefficient:	(0.19)	
Students' T value:	(7.3)*	
R squared = 67%	Sample = 73	Degrees of freedom = 68

Note: Price data were complete for only 46 households, when the regression gave an R squared of 62 per cent, but the price variable was highly insignificant.

Source: Primary field data, from livestock marketing surveys, 1993.

Figure 5.4: Livestock product income vs herd size (73 households)

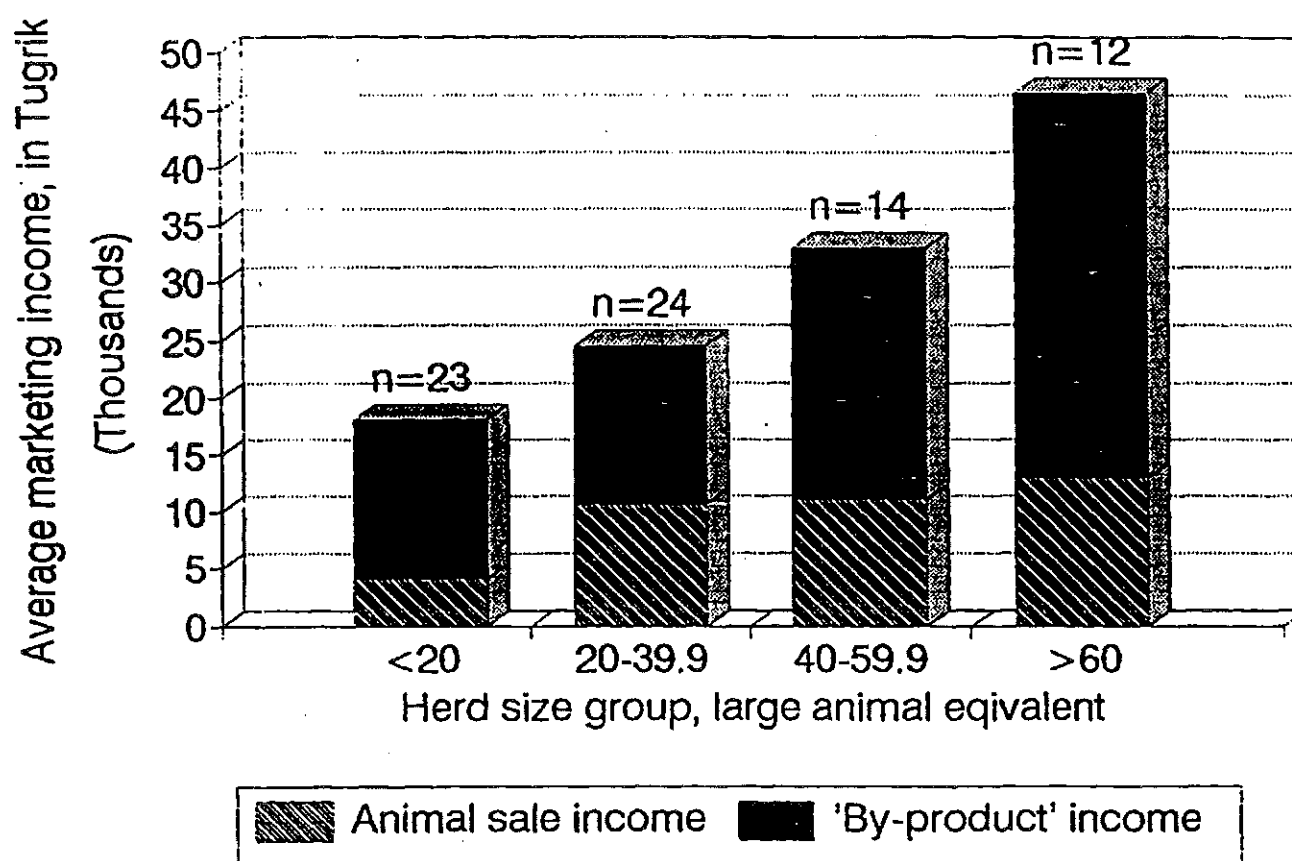


Source: Primary field data, from livestock marketing surveys, 1993.

The weak relationship between the size of private household herds and marketing revenues from sales of animals is supported by the evidence from the household marketing surveys. When regressing animal marketing incomes against the size of private herds, using the ordinary least squares method (OLS), a correlation coefficient (R squared) of a mere 10 per cent was obtained, even when regional differences were controlled for by using dummy variables. When the logarithm of private herd sizes was used instead, the R squared value improved slightly from 10.2 to 15.6 per cent, but this is generally considered far too low to indicate a predictable statistical relationship between the two variables. Figure 5.5 plots live animal sale income against the size of private herds, and the scatter of data points fails to suggest any obvious relationship.

regression with 68 degrees of freedom), the amount of variability in revenues, which can be predicted by herd size (as expressed by the R squared value of an OLS regression), is low, at approximately 33 per cent. The main explanation for this is that the level of income from sales of live animals is not closely related to private herd sizes at any of the research sites covered, as discussed under part (iii) of hypothesis 2.⁴

Figure 5.6: Animal sale and livestock product income by herd size groups



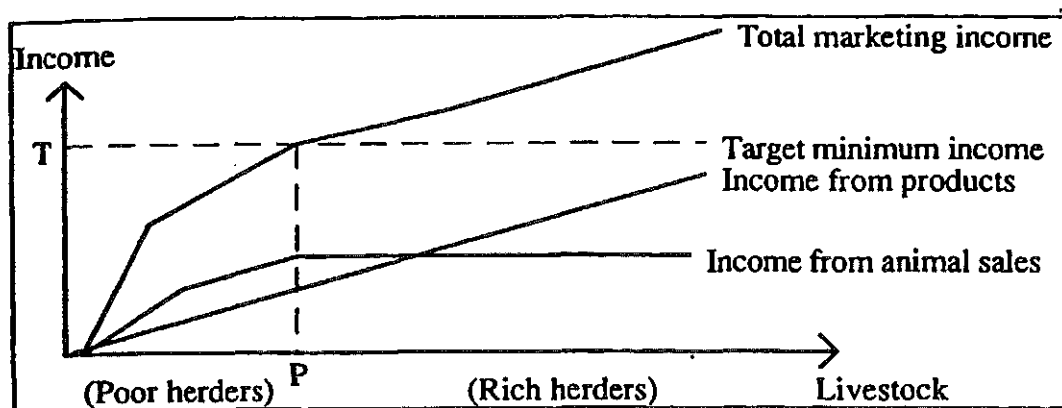
Source: Primary field data, from livestock marketing surveys, 1993.

4 Another part of the explanation for this rather weak relationship relates to the fact that in a few areas, like Kharkhorin, company-owned livestock form an important proportion of total herds. Here the majority of surplus from these animals is marketed by the former state farm companies themselves, remunerating herders via quota-based salaries and bonuses. Hence, the larger the company proportion of the herds, the larger the monetary income from those salaries and bonuses, which reduced the herders' need to market private animals and products. In Altan Bulag, the keeping of leased company livestock was also fairly common, though the system of remuneration is slightly different and private herds are proportionally more important than in Kharkhorin (PALD 1993).

Although there is a relationship between herd size and livestock product marketing incomes, households appears to resort to selling animals mainly to 'bump up' incomes in particular situations, for different reasons. Drawing on this perception, part (i) of hypothesis 3 predicts that wealthy herders will not market significantly more animals than medium wealth herders. Although the level of live animal sales is very variable, the survey results suggest that, on average, it will be no higher for wealthy herders than for average sized herders (i.e. families with private herds of some 50 to 150 animals, or some 20 to 60 *bod*). Poor herders will, of course, sell less per household, since they have fewer animals and are constrained by trying to keep a small herd growing, in the face of rigid demands for consumption. Figure 5.6 shows the average composition of marketing incomes, by herd-size group. Although average product incomes rise with increased herd size, incomes from live animal sales are not significantly higher for large herd owners than for lower or upper middle herd-size groups.

The survey results are consistent with the hypothesis, and can be clarified using a visual explanation of the underlying analytical concept, as in Figure 5.7. The model suggests that animal sales will be used primarily to supplement product marketing incomes, and that, beyond the point where a basic minimum income level is reached (using the combined revenues from product and live animal marketing), *P*, larger herders can afford to refrain from further animal sales, whilst enjoying higher incomes from product sales. A certain number of animals tend to be sold even by large herd owners, however, since some are surplus to both herd growth and home consumption needs.

Figure 5.7: Schematic model for analysing marketing income composition and potential marketing levels for live animals and products, by household herd size

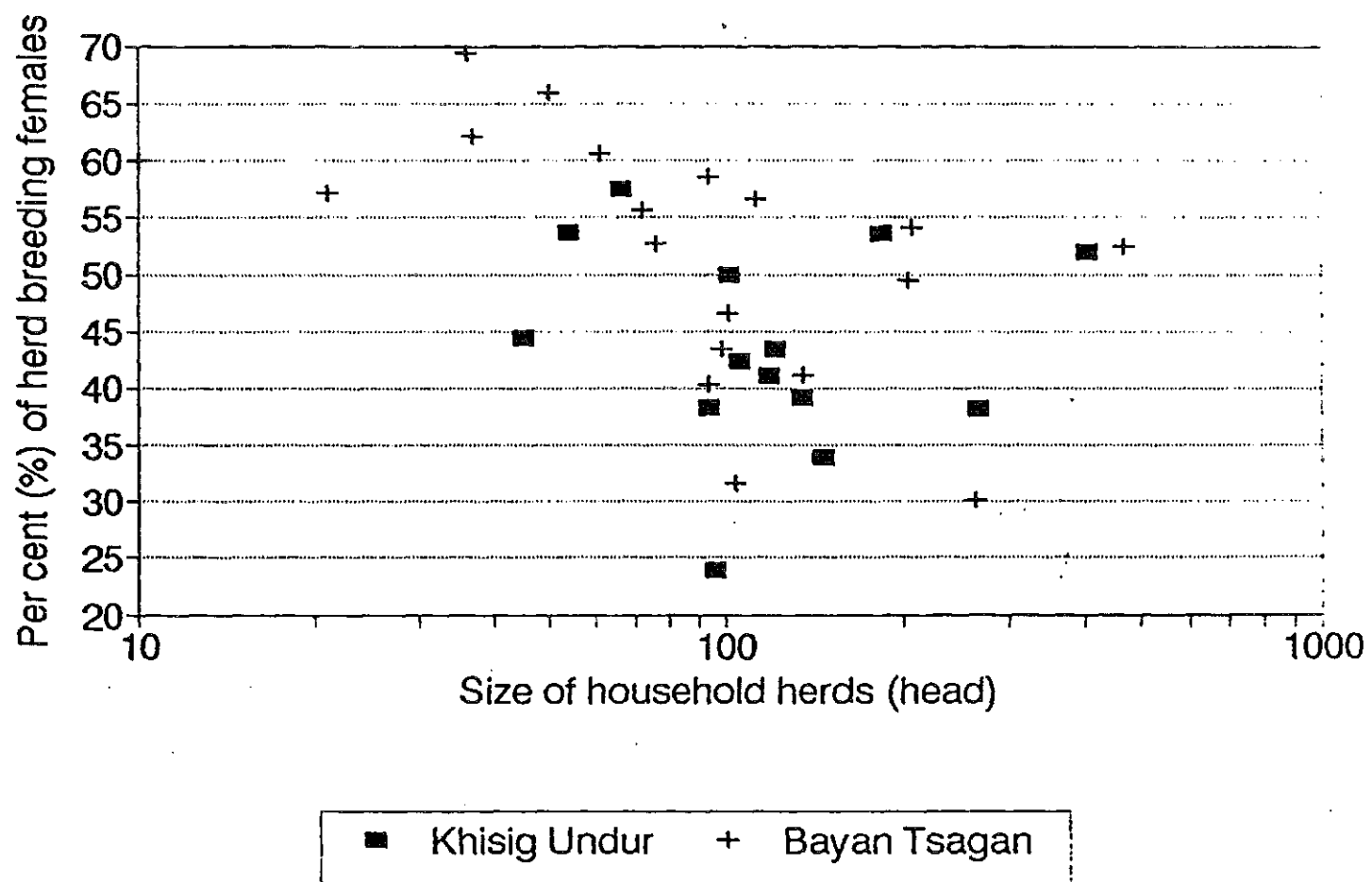


Note: The concept of a target income is somewhat problematic, if conceived of as 'static'. However, as herders' cash needs are highly variable, the high variability (or unpredictability) of animal sales can be seen as a result of herders using these sales to achieve fairly variable cash needs (or target incomes).

Part (ii) of hypothesis 3 suggests that, as a result of most herders' current preference for refraining from live animal marketing (when possible) combined with the pressure to reach minimum income levels, many poor herders will be forced to market more animals than they would ideally like. Given herders' sex and age preferences for marketing animals, poor herders may be expected to deplete their surpluses of males more quickly and if they have to use fertile females as well they may compromise the reproductive potential of their herds. As shown in Figure 5.8, poor herders, on the whole, do tend to end up with higher proportions of females in

their herds at the end of a season than wealthier herders, who end up with surprisingly low proportions of females, probably as a result of low levels of marketing and higher rates of mortality amongst females (related to breeding and extremely marginal nutritional conditions for pregnant females over the lean winter and spring).

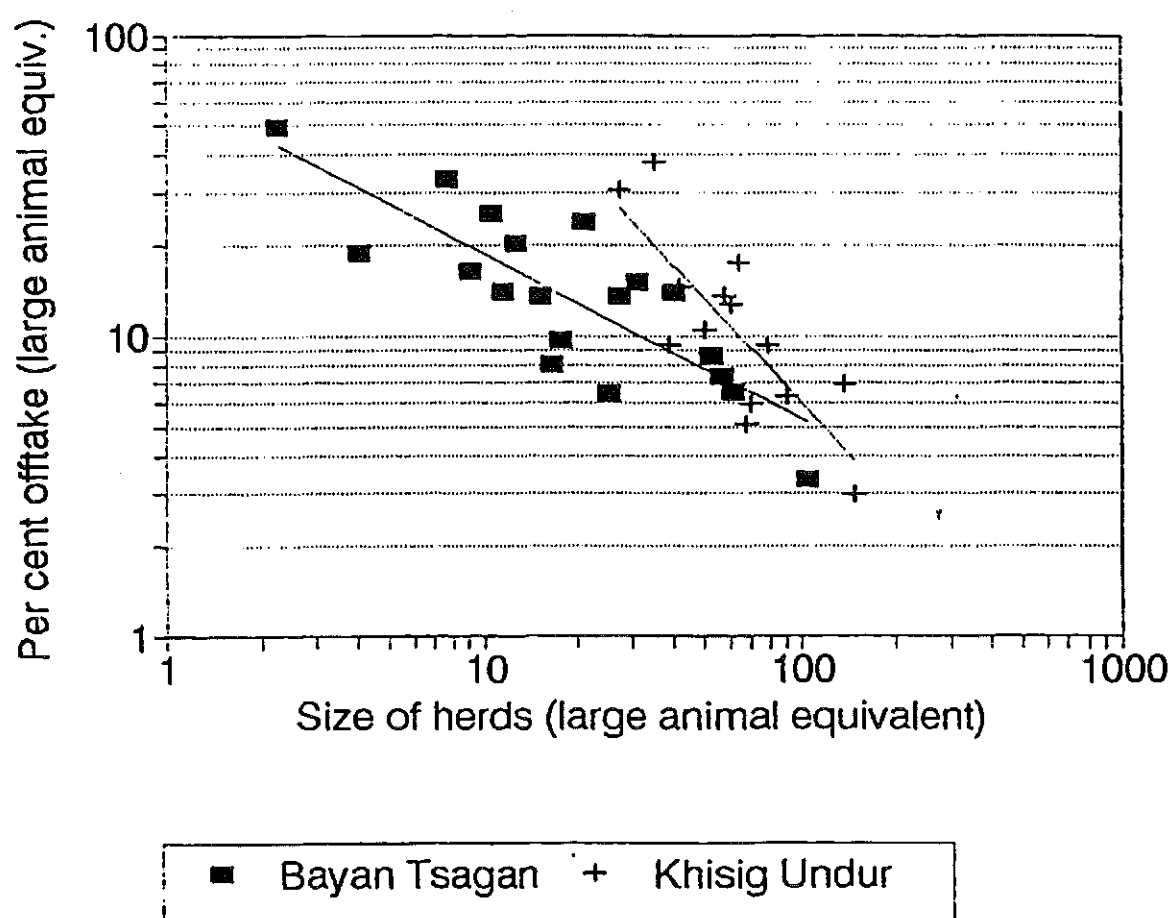
Figure 5.8: Proportion of breeding females vs herd size, Khisig Undur and Bayan Tsagan, 1992/93



Source: Primary field data, from livestock marketing surveys, 1993.

Another side of the same phenomenon, part (iii) of hypothesis 3 proposes that offtake rates will be higher for poorer herders than for wealthy ones. This is supported by the close relationship found between offtake rates and the size of herds (before offtake), as shown in Figure 5.9. Not only are poor herders likely to have a majority of breeding females in their herds, but since they are also more likely to slaughter or sell a major proportion of their herds, they would be expected to be at greater risk of negative growth rates as a result of animal losses due to climatic stresses, for example.

Figure 5.9: Offtake as a percentage of herds vs herd size, Khisig Undur and Bayan Tsagan, 1992/93



Source: Primary field data, from livestock marketing surveys, 1993.

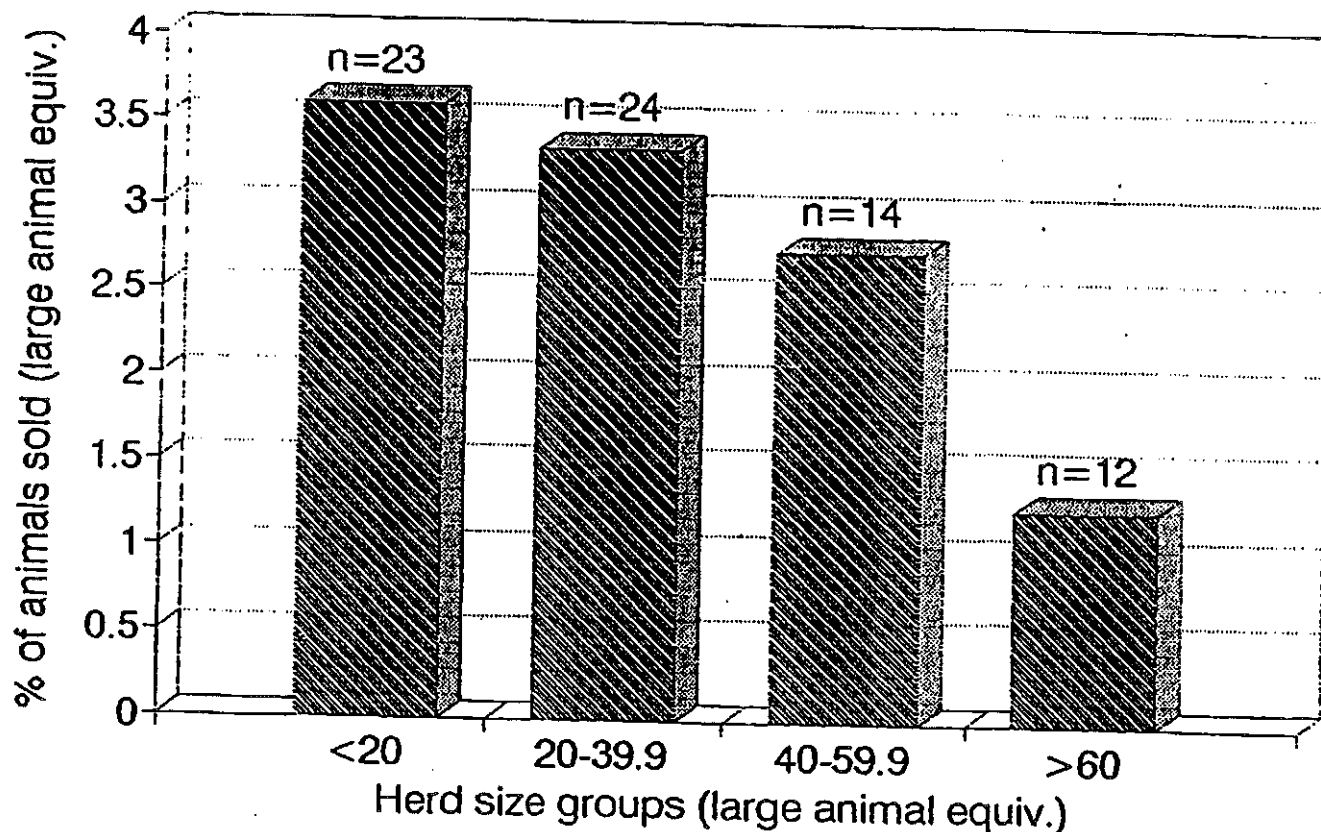
The surveys in both Bayan Tsagan and Khishig Undur revealed negative (exponential) relationships between offtake rates and herd sizes, although the strength of the relationship (the slope of the curve) was slightly weaker in Bayan Tsagan, where offtake was negatively affected by substantial animal losses resulting from heavy snowfall, or *dzud*.⁵ As discussed in Appendix 4,

⁵ The regression of (the natural log of) offtake rates against (the natural log of) herd sizes gave an X coefficient of -1.14 (with a T statistic of -4.62 and an R squared value of 64 per cent at 12 degrees of

evidence from Bayan Tsagan suggests that significant losses resulted in suppressed levels of offtake - and of marketing - presumably as a response to impaired herd growth and as a way of reducing future risks to production and improving food security. Furthermore, since herders with smaller herds have to operate with higher proportional offtake rates, they are likely to be more vulnerable as a consequence of accidental losses, and this might itself contribute to a worsening distribution of livestock in a scenario of climatic disaster.

Although most offtake is used for home consumption (as shown for hypothesis 1), the fact that wealthier herders can more easily refrain from livestock marketing means that, under current conditions, they will generally also sell proportionally fewer animals, per head of livestock, as proposed in part (iv) of hypothesis 3. Figure 5.10 shows how average marketing levels (per hundred head of livestock) are lower in groups with larger herds. If the constraints faced by smaller herd owners, discussed above, result in an increased wealth differentiation between herders (and if the current external marketing environment prevails), one might expect a further reduction in overall levels of marketing.

Figure 5.10: Per cent of herd sold vs herd size, 1992/93



Source: Primary field data, from livestock marketing surveys, 1993.

freedom) for Khisig Undur, and an X coefficient of -0.55 (with a T statistic of -5.85 and an R squared of 67 per cent at 18 degrees of freedom) for Bayan Tsagan.

Internal dynamics and consumption and production constraints appear to affect the marketing strategies of poor and wealthy herders differently. Poor herders appear to operate under more marginal conditions, where offtake requirements for consumption limit herd growth and make them more vulnerable to shocks. Average herders will often resort to animal sales as a means of supplementing their mediocre incomes from livestock products and meeting specific short-term cash needs. Wealthy herders with large herds, on the other hand, though able to market more, can also afford to market proportionally less (as well as absolutely less, if need be), as home production and consumption are more abundant, as well as sales of non-meat products - a pattern also found in other pastoral systems (Behnke 1983). Wealthier herders appear to be waiting for the external environment to change in their favour, since livestock are a more tangible and reliable store of wealth than bank accounts or material goods (which often also restrict mobility).

5.4 ECONOMIC RATIONALITY AND THE PRICE RESPONSIVENESS OF HERDERS

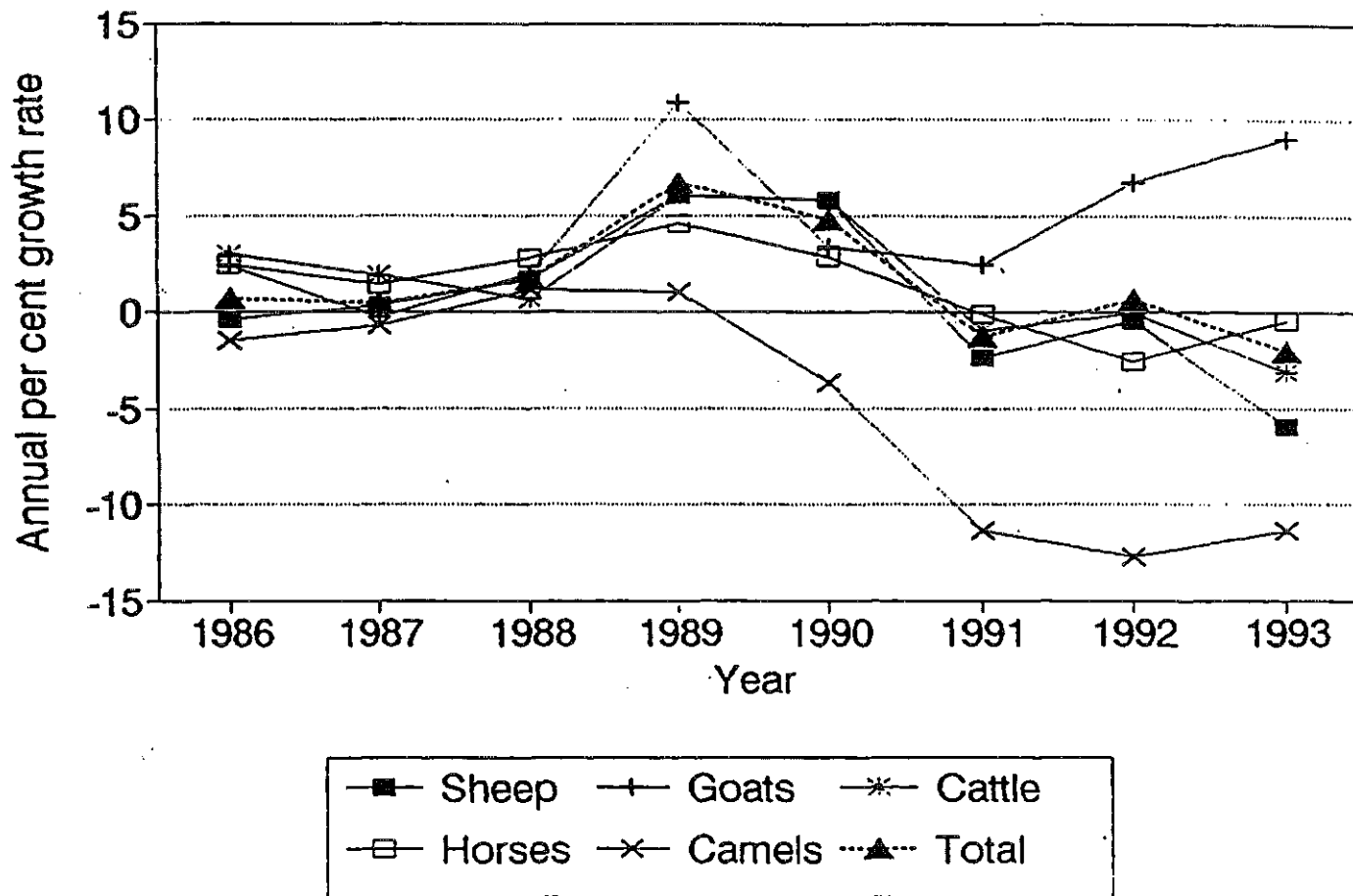
What the above evidence demonstrates is that Mongolian herders' marketing behaviour can clearly be explained as 'rational', in the economic (and in the common) sense. Admittedly, the data generated are cross-sectional and can not therefore measure herders' responses to changing prices directly, as has been attempted for livestock producers in some other parts of the world.⁶ Such an analysis, however, requires ready market access and efficient competition at the farm-gate level, which does not yet appear to be the case in Mongolia. On the other hand, the broad circumstantial evidence - at the national level - that offtake and marketing levels have declined concurrently with a continued deterioration in herders' terms of trade, is generally consistent with the view that herders' market responses are rational, even if other factors, such as peculiarities in the privatisation of livestock and the near collapse of former supply and distribution systems, have no doubt also played a part.

Nevertheless, other circumstantial evidence seems to support the view that herders are sensitive to price changes over time. In order to improve their ability to rely on product marketing incomes, producers have tried to maximise the production of the most profitable products by delaying animal sales and increasing the concentration of certain species in the herds, with the effect that offtake rates declined and growth rates rose, particularly amongst those species whose 'by-products' have escalated faster in price relative to others. A prime example of this is the rapid increase in the national goat population, shown in Figures 5.11 and 5.12, which has been concurrent with a rapid rise in the relative price of cashmere (as shown in Figure 3.5).

In general terms, the above model supports the common-sense perception that herders are rational economic agents and explains why (under the current poor external marketing conditions): (i) they eat more meat than they sell; (ii) they rely as much as possible on non-meat products for their marketing incomes; and (iii) they deploy different marketing strategies depending on their relative wealth (livestock holdings). We can therefore assume that herders will respond in a normal way to price changes and marketing conditions, and we can therefore use the model to predict what is likely to happen in the event of an improved external marketing environment.

⁶ These studies, however, have often come up with seemingly paradoxical conclusions, probably precisely because they have not applied more holistic analyses of the livestock economy, or paid sufficient attention to the complexities of the pastoral household economy, or broader market imperfections affecting the performance of those markets.

Figure 5.11: Annual growth rate of national herd, 1986-1993

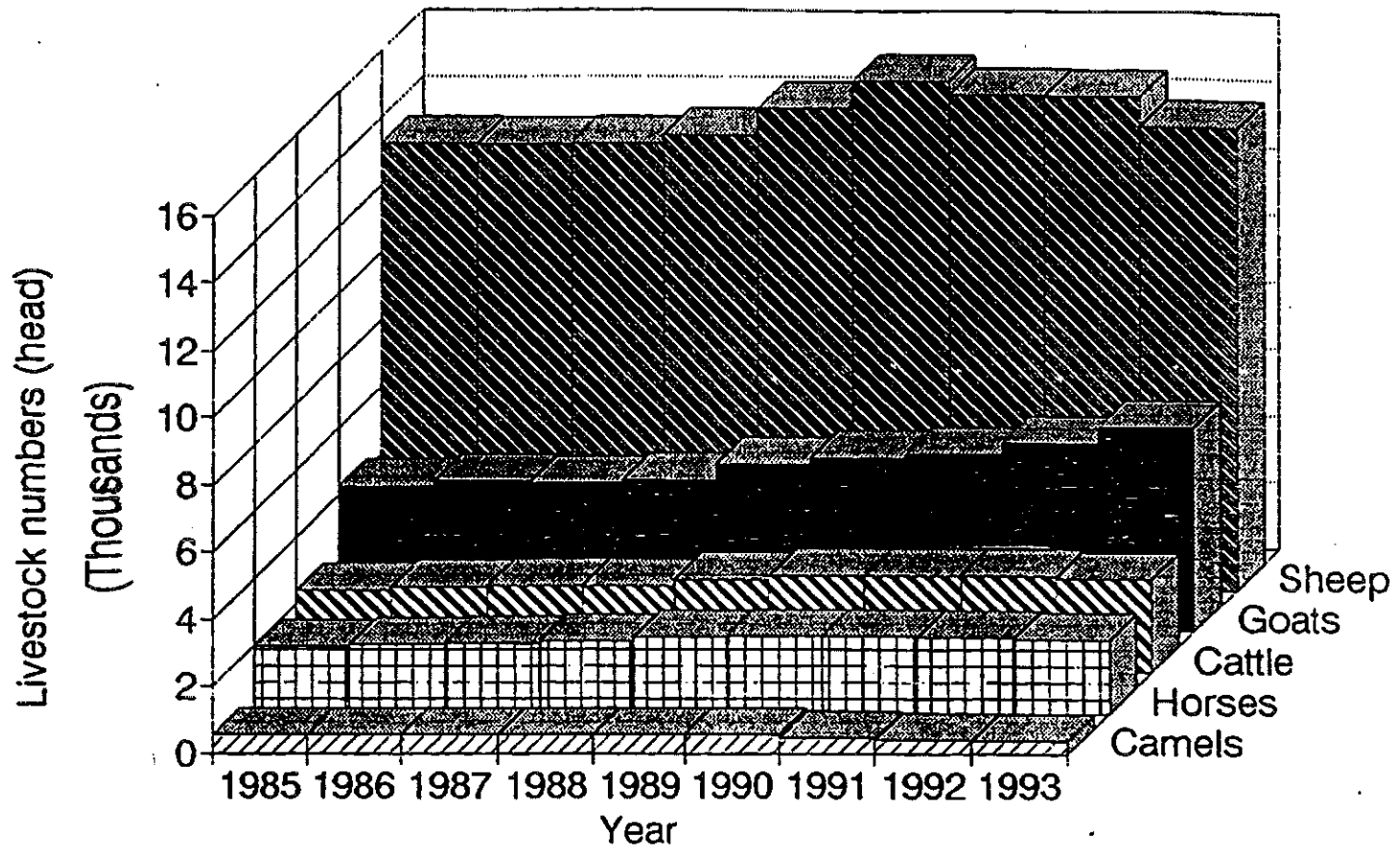


Source: Estimated on the basis of data from the State Statistical Office (SSO 1992, 1993, 1994).

In the short term, an improved external environment would most probably make poor herders market less (as they could reach their target incomes by selling less) and wealthy herders market more (as they would have more productive uses for additional incomes). Furthermore, it would make meat production more profitable relative to non-meat products, thus allowing for earlier sales, higher proportions of breeding females in the herds, higher breeding rates and overall higher productivity in livestock production. In all cases it would improve the real wealth and food security of all herders.

In the longer term, the likelihood of the poor selling proportionately less and the rich more would contribute towards a more even distribution of livestock. Poorer herders could build up their herds and their total marketing would increase, raising not only their own welfare but also overall levels of marketing. As a result of the higher profitability of marketing, constraints on herd growth would be reduced, with a growing nomadic 'middle class' allowing for higher levels of marketing and lower levels of poverty. The external environment is undoubtedly the main constraint to raising overall levels of marketing and increasing herd offtake rates over the medium and long term, in Mongolia today.

Figure 5.12: Size and species composition of national herd, 1985-1993



Source: Estimates on the basis of data from the State Statistical Office (SSO 1992, 1993, 1994).

6 SUMMARY OF CONCLUSIONS AND MAIN RECOMMENDATIONS

6.1 SUMMARY OF MAIN CONCLUSIONS

Mongolian livestock have today largely passed into private hands and many of the former state supply organisations have now also been privatised, though strong links with the administration remain, since they are judged important for fulfilling residual centralised state procurement orders. Although price liberalisation in the livestock sector was long delayed relative to other sectors, prices are now officially free for livestock products at the farm-gate (or *ger*) level and subsidised meat rations were abandoned in August 1993. Meat prices for the private sector were liberalised, but fixed ceiling prices have been maintained for parastatal meat trading organisations. Overall offtake rates have been declining since 1991 and, within that decline, the proportion of meat marketed through the centralised procurement system has drastically declined. The government now needs to go further in the reform of marketing.

The main problems are: (i) a decline in producer prices in relation to consumer goods prices in rural markets; (ii) limitations on timely and reliable access for producers to competitive market outlets; (iii) severe cash-flow constraints and prohibitively high rates of interest on bank loans; (iv) limitations on marketing caused by dependence on barter trade; (v) restricted mobility, due to long distances, high fuel costs and limited access to fuel; (vi) restricted access to international markets for the export of meat and (now) raw cashmere; (vii) weak demand from inefficient domestic processing industries.

Herders' responses to these problems have been predictable: (i) live animal sales are kept as low as possible, as the benefits of marketing animals have been reduced in favour of home consumption of meat; (ii) to the extent that exchange is necessary, herders sell livestock products other than meat, since their prices have been more buoyant than meat prices; and (iii) where animals are sold, despite poor prices, herders with large herds sell proportionally fewer than all other groups (per head of livestock) and no more, per household, than middle-size herders, since the wealthy can 'make do' more easily with larger marketing incomes from non-meat livestock products. The poor sell fewer animals, per household, than all other groups, since they have fewer animals to sell, but they are often forced to sell more than they would ideally like, in order to meet their basic consumption needs, and this can compromise the reproductive potential of their herds.

Improved terms of trade and an improved external environment would make meat production more profitable, relative to non-meat products, thus allowing for earlier sales, higher proportions of breeding females in the herds, higher breeding rates and overall higher productivity in livestock production. Although, in the short term, this would probably make poor herders market fewer animals, it would make wealthy herders market more. In the longer term, the likelihood of the poor selling proportionately less and the rich more would contribute towards a more even distribution of livestock, and the total level of livestock marketing would also increase. In all cases it would improve the real wealth and food security of all herders, both immediately and in the long term.

At the primary producer level, few other interventions would significantly alter marketing prospects in the short term, but certain policy instruments, such as livestock taxation, could be used to redistribute livestock towards mid-size herders, over time. Targeted credit schemes, subsidised emergency fodder, livestock insurance, livestock restocking schemes and the waiving of fees for veterinary services (particularly where significant externalities are involved) could all be used to improve the growth prospects for very poor herders, if targeted effectively. These

interventions are, however, secondary in nature, and would be likely to be ineffective or unsustainable over the long term without a comprehensive and proactive programme to improve the market environment. Improving market efficiency, and thus also herders' terms of trade, is a first step to the development of the pastoral sector, which in turn is the most promising path to a food-secure and equitable future for the entire population. Market development is also a precondition for the long-term success of other development assistance initiatives for the sector, and particularly for those reliant on cost-recovery from producers.

6.2 EMERGING POLICY RECOMMENDATIONS

The main policy implications emerging from this research, which could form the essential components of such a proactive policy, are described briefly below. A more comprehensive discussion of these policy options is developed in more depth in a separate PALD Policy Options Paper (PALD 1994).

6.2.1 Pricing Policy

Despite serious delays in agricultural price liberalisation, Mongolia has made significant moves towards market pricing of agricultural produce. With the liberalisation of private sector trading in agricultural and livestock products, the government shifted from a system of fixed prices towards a dualistic pricing regime (particularly for meat), in which parastatal marketing agencies operate under a more or less controlled price regime, in competition with the private sector, where pricing is regulated by market forces (though, with limited competition, structural oligopolies can offer relatively low producer prices and higher consumer prices than more competitive market structures would allow). Persisting in the current dualistic pricing policy will contribute to a continuing deterioration in rural-urban terms of trade, and will further constrain the flow of marketed livestock. Furthermore, the policy fails to address its supposed objective of improving the food security of the urban poor, who rely more on flour and rice for their dietary intake than on meat. The proportion of meat marketed through the state procurement system has declined substantially as a result of competition from alternative, more competitive, channels and the parastatals are finding it difficult to cover their operating costs. Free prices would make these organisations less of a burden on the state budget, and would raise their operational level closer to capacity. This, in turn, would increase competition between alternative marketing channels, and keep the pressure on private traders and other market operators to minimise profit margins, cut costs and increase total volumes traded.

6.2.2 Market Structure

Mongolia has made some progress towards increasing competition in livestock marketing. There has been a move from state monopoly in trading to various levels of competition between parastatal agencies and independent operators, via an intermediate stage of parastatal oligopoly (monopolistic competition between state-controlled agencies). It is in the interests of market development to encourage as many alternative structures as possible, provided that they are economically viable and self-sustaining. Most current alternative types of market channel have different benefits as well as drawbacks for producers and consumers, so it is important to find new ways of encouraging all channels to develop efficiently.

6.2.3 Credit

Subsidisation of parastatal companies, without offering the same terms to other marketing operators, is a good example of inequitable marketing conditions. Targeted small-scale lending

to encourage the development of new marketing channels could be justified, but continued preferential lending at subsidised rates to older established channels can not be justified economically. Transforming local banks into efficient organisations with strict financial discipline and reduced administrative interference is a second fundamental requirement to transform the rural economy (after full price deregulation).

6.2.4 International Trade

Domestic market prices are affected by international trade restrictions, which have negative effects on all pastoral producers and traders, but particularly on remote herders and communities near international borders. There is an official quota system for the export of meat (primarily reserved for parastatal trading companies) and a ban, since April 1994, on the export of raw cashmere (which was liberalised two years before). More equitable options for regulating exports would include export taxes or export licences which could be sold at public auction. The conventional wisdom gained from the experience of export, led structural adjustment programmes in other countries suggests that Mongolia should adopt low-level export taxes rather than any form of quota system, but public auctioning of quotas is clearly more equitable than the current quota system.

6.2.5 Domestic Processing Industry

The justification for encouraging the development of domestic processing industries is to add value to exports and reduce bulk before marketing costs are incurred, as well as to develop the economy along the lines of its comparative advantage on world markets. A distinction has to be drawn between local rural and urban processing. From the point of view of adding value before marketing costs, local processing is more immediately significant, and from the viewpoint of developing industry on the basis of comparative advantage and capital accumulation from international trade, open trade policies allow the market to determine where the focus should be. Nevertheless, given the previous urban bias in Mongolian industrialisation policy, the government may also need to support the development of local processing industries directly, with small-scale credit and training.

6.2.6 Taxation

Two important sets of taxes could be altered to improve both livestock marketing and national food security namely: (i) trade and import taxes; and (ii) the livestock tax. In the first case, herders' terms of trade have been negatively affected by price inflation in essential imported foods, and this has been fuelled by taxes (as well as the devaluation of the Tugrik) namely: (i) some 8-10 per cent at import; and (ii) a further 15 per cent in trade tax. Reducing these taxes would simultaneously improve herders' terms of trade and food security of the poor. In the second case, raising the limit of tax-free animals per capita could help poor herders overcome low-level barriers to herd growth. Introducing an incremental marginal tax on additional animals over a certain limit could reduce herd growth in the upper brackets, where marketing levels are proportionally lower than for medium-size herders, and redistribute animals towards the middle brackets.

6.2.7 Infrastructure

Fair competition in marketing requires that all operators have impartial access to infrastructural support. Marketing infrastructure includes transport infrastructure (e.g. roads, bridges, railways and the availability of petrol), trek routes, market places, market information, slaughter and

storage services. These need not be operated by the government. Where investment is unlikely to be forthcoming from the private sector, however, subsidies or direct investment may be necessary (for example, in transport infrastructure).

6.2.8 The Role of Government in Marketing Development

Government needs to adopt a supportive approach to the development of market operators. A range of roles include: (i) providing an equitable framework for contract agreements, arbitration (in cases of disputes), enforcement and legal protection in general, in order to reduce uncertainty and transaction costs; (ii) providing marketing information services; (iii) encouraging voluntary quality grading and certification, by the private sector, without making them mandatory (even for export); and (iv) appropriate business management training for different kinds of market operators.

6.2.9 Poverty and Food Security

The commonly perceived trade-off between national food security and further liberalisation of livestock markets is a serious misconception, with high costs in terms of rural living standards and long-term food security. The poor, both urban and rural, suffer more from rapid escalations in the price of basic staples, such as flour or rice, than they do from the price of meat. With the near collapse of the centralised state procurement system, the private sector has taken over most of the trade in meat, but supply is low at present prices. If the urban poor are to be guaranteed minimum supplies, alternatives to holding down producer prices will have to be found. Targeting the urban very poor with transfer subsidies would be more efficient than taxing producers (many of whom are poor themselves) across the board.

There are many reasons for helping poorer herders to overcome their low-level growth constraints, but from the point of view of improving livestock marketing suffice it to note that increased poverty and wealth differentiation in the pastoral economy are likely to depress livestock offtake and marketing levels, since under current conditions large herd owners are more able to refrain from marketing animals and poor herders are limited by the fact that they have fewer animals to sell. This is a circular problem, in view of the fact that livestock marketing is seen as the predominant avenue for raising rural incomes. At present, important external factors, such as poor terms of trade, export restrictions and market distortions, keep marketing levels low.

6.2.10 Summary of Recommendations

Price policy needs to be further liberalised, and parastatal marketing organisations need to be given the autonomy to set their own prices in competition with independent market operators. Excessive prices for meat and other livestock products are best prevented by ensuring that there is effective competition between different market channels under fair and equitable conditions. Measures to create such conditions include:

- 1 abandoning residual state orders and price ceilings for meat;
- 2 guaranteeing equal access to domestic markets for all operators;
- 3 providing credit on similar terms, at positive market rates, to all types of market agents;
- 4 allowing equal access to international markets;

- 5 where export restrictions are judged necessary, achieving this through export taxes applied equally to all exporters, rather than a selective quota system;
- 6 ensuring that fuel can be obtained universally at equitable prices;
- 7 providing market infrastructure in such a way that it is open to all; and
- 8 providing an enforceable and fair legal framework and marketing support services in a way which benefits all types of operators equally. In order to perform the latter functions impartially, it is important that government does not itself participate in marketing in any major way.

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APPENDIX 1

TRADITIONAL SOCIAL INSTITUTIONS OF POTENTIAL RELEVANCE FOR DEVELOPING CO-OPERATIVE MARKETING AT THE PRODUCER LEVEL

Three apparently distinctive types of *khot ail* were identified during field research, which - for want of a suitable pre-existing taxonomy - we have described in the following terms (PALD 1993; Cooper 1994):

- 1 **Locked *khot ail***, consisting of a network of households closely related, or linked, by bloodline or marriage, and containing no unrelated 'outsiders';
- 2 **Core *khot ail***, consisting of one central and dominant 'core' of closely related households, but with additional unrelated and often independent households; and
- 3 **Loose *khot ail***, consisting of a collection of largely non-related households, sometimes with small sub-groups of relatives, but without any clearly predominant family group.

Locked *khot ail* were found to be fairly common in Central and Northern regions, such as Bulgan, Tuv and Uvurkhangai. It was in Uvurkhangai (Kharkhorin) that inspiration for the term was found; here a family group of this kind is sometimes referred to as a *gav* (meaning 'handcuff' or 'chains'). A *gav*, however, can also refer to more than a single *khot ail*, such as a larger family congregation linked in 'locked' *khot ail*. No particular name was used to refer to these locked *khot ail* in many areas, however. In general, they often tend to be quite extended and covering related households representing two or more generations. Often such a group will be headed by an elder man, who will usually share his winter shelter and make seasonal moves together with the families of his children. Sometimes, when a locked *khot ail* is very large and there is more than one elder member, it may split up for the winter and spring into smaller more closely related (and vertically linked) sub-groups, when two elder brothers own their own separate winter shelters, for example. It would appear that the larger the family group, the more closely the family is tied. Access to key production inputs, such as winter shelters, equipment, and additional labour is greatly facilitated by alliances of this sort. Pasture land and winter shelters are shared in accordance with tradition, and any gender bias in this system appears to be predominantly patrilinear.

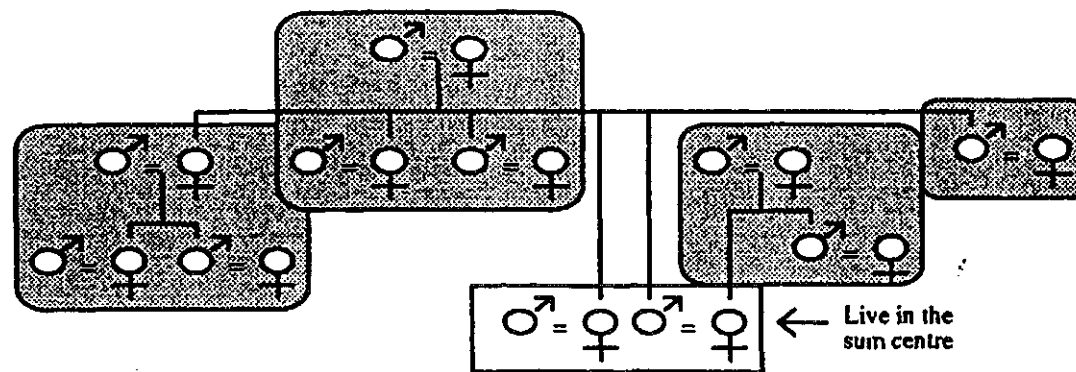
The second type, core *khot ail*, is characterised by the central role of a dominant core family group combined with additional non-related households who may or may not share in various tasks and activities - often depending on how permanent, or established, their membership is. Sometimes they will be newcomers to herding, and they may be relatively poor in terms of livestock but able to contribute labour in exchange for some livestock products, or access to certain inputs, such as winter shelters. The members of the core group tend to share winter shelters and move together throughout the year, whereas the other households may or may not join them, depending on their specific personal relationships. For the most part, however, they seem to split up in the winter and go their separate ways.

The third type, here called loose *khot ail*, differs from the second mainly by the absence of a dominant core family group, though a few households may be related. These *khot ail* were found mainly near *sum* centres and appear to consist of a large number of newcomers to herding, or

families with strong ties (such as a job) in the *sum* centre. On the whole, very few tasks were shared and these *khot ail* were said to be fairly 'occasional', with families not moving between pastures together nor necessarily returning to the same spot year after year.

Box A1: A *gav* of locked *khot ail* linked together by blood and conjugal ties

An interesting special case of an intermediary form of social organisation, between the *khot ail* and higher-level institutions, such as the *bag* or a company, is that of a particular *gav* in Jalbagiin *bag*, Kharkhorin. This *gav* comprises three locked *khot ail* and a single household, all related to each other and without any outsiders. They all live within a radius of about 100 metres, or less, and although each *khot ail* herds its animals separately, they do help each other with some specific labour-intensive tasks, like sheep shearing. Furthermore, there is a clear leader of the *gav* - the eldest member - with whose name other members are linked. It should be mentioned that they occupy a pristine spot of high quality pasture land, and it may be that it is the location's carrying capacity which has allowed a dynamic and tightly knit family group to extend beyond the level of a single locked *khot ail* into a number of separate *khot ail* within the same area. It must also be stressed that this case represents the exception rather than the rule.



Note: Households are represented by a male and a female symbol connected by the equal sign, '='. Descendants of the couple, or household, are linked to their parents' union by single lines (from parents down to children) and separate *khot ail* are indicated by shaded, rounded, boxes. Children living in the *sum* centre are grouped in the square white box.

Source: (Edström and Enkhmagan 1993; PALD 1993, Vol II).

Aside from individual herders, *khot ail* and companies, there appears to be little other social organisation, or even explicit co-ordination, in livestock production. Concepts such as *neg nutgikhyyan* and *neg golikhyyan* were recognised in Kharkhorin as referring to any group of people who happen to live in the same geographical area (along a particular river valley in the latter case, while, in the former case, a flexible range of concepts from 'the people in these parts' to 'people in the neighbourhood' was used to explain the term). There was no recognition of any existing social function for these entities, or of explicit institutions connected to them (although some older herders regretted that several of their pre-collective functions had been lost due to the *negdel* and brigade boundaries having been drawn up without any attention being paid to these

traditional structures). Today they are recognised and used more for explaining where different people and *khot ail* are situated. An exception to the lack of social organisation in herding above the level of the *khot ail* is provided in Box A1.

There have been diverging views on what type of institutions may emerge in Mongolia, which could facilitate herders organising amongst themselves to achieve co-operative outcomes in resource management and other areas of concern, such as marketing. Whilst traditional pre-collective local neighbourhood groups, *neg nutgikhyyan*, have been suggested as a potential future institution on which to base pasture management in certain areas (Mearns 1992, 1993), it has also been argued that blood ties and close friendships provide a much stronger basis for co-operation than any local grouping, since they are based on extremely durable social obligations, which appear always to have been of great importance in Mongolian nomadic life (Sneath 1994). One of the oldest available accounts of this, by a Western author, would certainly seem to support this view (von Rubrik 1253). The two are not incompatible, since networks of bloodties and friendships are pervasive in most local areas and can form a framework for facilitating the implicit co-ordination of pasture use. Indeed, central to the concept of a 'social order' at the level of the *neg nutgikhyyan* is the notion of traditional rights to pasture use, passed down through generations of herders local to the area.

It would probably be a mistake to 'write off' any form of social organisation based on locality, since repetitive seasonal patterns of migration, combined with the geographic stability of *neg nutgikhyyan*, or introduced by fixed administrative boundaries of relatively small size, provide the basic preconditions for some sense of community, such as familiarity and a sense of common geographical 'home land'. Furthermore, although blood links and close long-standing friendships certainly appear central in the process of formation of *khot ail*, they are by no means always based on such ties, and it is important to recognise that different local groupings of households in different parts of the country often have very different co-operative functions (PALD 1993; Cooper 1994). Whilst in certain areas the familiarity and mutual respect provided by generations of belonging to particular 'valley groups', for example, facilitates the spontaneous and peaceful co-ordination of pasture management (Mearns 1993), for purposes of sharing labour the *khot ail* appears to be certainly the main institution, whether or not based on blood ties (even if that seems to be the more common case).

APPENDIX 2

GOVERNMENT POLICY INDICATIONS, AS REFLECTED IN GENERAL GUIDELINES

Box A2: General opening statements of 'The basic guidelines for the development of the food and agriculture sector', approved by the Council of the Minister of Food and Agriculture, 9 March 1993

- In 1993, organisation of the privatisation process in the food and agriculture sector will be further implemented and the mistakes which have taken place during the privatisation process will be addressed. As different types of business organisation and ownership are now allowed, free competition should be ensured.
- From 1993 the policy will be to improve the earning capacity of agricultural enterprises through the liberalisation of farm-gate prices.
- Part of the process of transforming the food and agriculture sector into a market-oriented system must be the setting up of appropriate infrastructure. Assistance should be available to farms in planning, accounting, and information, which will meet the requirements of a market economy. The establishment of service businesses for agriculture based on personal investment by groups or individuals will be supported.
- The Ministry of Food and Agriculture should be responsible for the collection of information to assess the balance between the requirements for food and other products and the production, supply, and distribution of agricultural output and resource utilisation.
- Emphasis in the agricultural sector will be placed on production for export.
- In the higher technology area of agriculture the state will continue to maintain its shareholding in productive farms. In the cereal production sector, within the next two to three years farming businesses will be established, based on the present level of technology and available machinery and with 6,000 to 10,000 ha land area. The mechanised dairy farms will be extended to include grain-growing land.
- Potato, vegetable, berry, poultry, and pig farms, will be fully privatised. Support and assistance will be extended to private producers in this sector.
- It is important to work out the mechanism for raising the incentives for private enterprises to supply national production needs through the market.
- The necessary conditions will be created to increase the production of food and agricultural products and to make production profitable. Special projects will be developed and implemented within the framework of 1993 being the Year of Food.
- The repayment schedule for all bank loans of cereals and dairy farms up to 1992 will be extended with low interest rates until the year 2000. In addition, in 1993, measures will be taken to ensure meat supply and crop production for state central requirements by providing subsidised low interest credit. To assist grain producers to sow their crops, working capital loans of up to 30 per cent of expected revenues will be provided by the processors.

Source: GOM 1993.

Box A3: Selected extracts from 'The basic guidelines for the development of the food and agriculture sector', approved by the Council of the Minister of Food and Agriculture, 9 March 1993

Selected guidelines for developing the livestock sector, relevant to marketing (Section 1):	
xiii	The old system of supplying urban centres with meat by state orders will be changed in 1993. It will be based on a new system of direct agreements reached between consumers and suppliers.
xiv	Food and animal markets will operate in the big cities and the capital. In particular, there will be one livestock market in each <i>aimag</i> centre and two to three markets in Ulaanbaatar. These will have service centres adjacent for slaughtering, dressing and transportation. Additionally, veterinary and hygienic service will be provided. The primary processing of raw materials and related services will also be provided in these markets.
xvi	Mechanised dairy farms will be given adequate land for making their own fodder. The state will also support the setting up of private intensive dairy farms and will provide advisory booklets and documentation on technological standards for such dairies.
xvii	Mobile butter production units for the summer and autumn period will be developed by privatising the former butter processing equipment of the <i>negdel</i> . Technology for processing butter under home conditions will be introduced. For this, milk separators will be distributed during 1993-94, especially in <i>aimag</i> with high yak numbers, such as Arkhangai, Uvurkhangai, Khuvsgul, Bayankhongor, Tuv and Khentii.
Strategies for the development of meat production (Section 5.1):	
In 1993-96 the production of meat will be 1,032.5 thousand tonnes, 912.2 thousand tonnes of which will be used domestically by 88.2 per cent of the population. Slaughterhouses will try to reach 1990 production results in processing four types of meat, plus pork. During 1993-96, 35.3 to 47.1 thousand tonnes of meat, 4.0-5.9 thousand tonnes of sausage, and 720-1,960 tonnes of canned products will be produced. Annually, 20,000 tonnes of meat will be exported.	
For the supply of quality meat products the following policies will be pursued:	
i	Formerly centralised institutions will be supplied directly by the market. Meat reserves and annual meat exports should be calculated beforehand and supplied from the market.
ii	To increase pork and poultry production, economic mechanisms will provide incentives for the establishment of private enterprises.
iii	In rural areas, the local population will be supplied with meat by the free market.
iv	<i>Aimag</i> and <i>sum</i> will supply meat for the state centralised use, in turns, in order to raise the productivity of meat and ensure raise of livestock [translation unclear].
v	In 1993 Bakhngai slaughter house will begin operations, and will be supplied with horses for export production.
vi	Ulangom slaughterhouse should be completed and operated in the form of a joint venture with EEC member countries or other interested countries.
vii	Darkhan slaughterhouse cooling equipment should be obtained from Japan as aid.
viii	The Bone Processing Enterprise should be renewed and re-equipped and similar-small scale plants or enterprises should be set up in <i>aimag</i> and <i>sum</i> .
ix	With the technical assistance of Denmark, New Zealand, and Germany and other donor countries small-scale slaughterhouses are to be installed in <i>aimag</i> centres and in selected <i>sum</i> . During 1994-96 small-scale meat-processing plants and slaughterhouses will be set up.
x	Processing and export of intestines and the use of the respective revenues will be under the control of the state.

Source: GOM 1993.

APPENDIX 3

DOUBLE-WEIGHTED SCORING OF MARKETING CHANNELS

Table A3, which represents an extension of the PRA method developed with a horse breeder near Kharkhorin, called 'weighted benefit scoring', was elaborated with a specialised sheep breeder working for a state-controlled ex-state farm company.

The basic method was similar to that applied to the participatory benefit scoring of livestock by age and sex groups, discussed in Chapter 5, the main difference being that here the process is carried one stage further (on the suggestion of the herder carrying out the scoring); i.e. not only (i) scoring each market outlet for separate benefits/factors (such as price, access, etc.) - separately for broad categories of products - and weighting these by the overall importance attached to each separate factor, but also (ii) scoring the three different kinds of product categories, in terms of the products overall importance, in order to weight each product sub-total, so as to derive a double weighted score for each market outlet (i.e. adjusted both for relative differences in the importance attached to different qualities of market outlets and differences in the importance of marketing different categories of products).

The specific sequence of steps was as follows:

- 1 Each market outlet was first scored for how attractive it was in terms of different factors specified by the herder (the left-hand figure in columns 2 to 5).
- 2 Then the overall relative significance of these factors was also scored (in the right-hand column).
- 3 The overall factor score was then multiplied by each individual score for each market outlet, giving the figures in brackets at the right-hand side of columns 2 to 5. This was done separately for meat (live animals), wool and other livestock products, on the suggestion of the herder.
- 4 In stage two, the weighted scores for each outlet were added up by type of product (giving the figures in single brackets at the left-hand side of columns 2 to 5, in the bottom part of the table).
- 5 The relative significance of marketing each type of product to the household was then scored (in the right-hand column at the bottom of the table).
- 6 These relative scores were then used to weight the sub-totals (by multiplication), by type of product for each market outlet, and the double-weighted scores are given in double brackets at the right-hand side of these columns.
- 7 These scores were then added up and the total double-weighted scores for each market outlet are given in bold figures at the bottom of the table (single-weighted totals are also given - in single brackets - for comparative purposes).

Table A3: Participatory 'double weighted factor scoring' of alternative market outlets, by a fine-fleece sheep breeder, working for a parastatal ex-state farm company

Market outlet:		Company	Consumer co-operative	Private traders	Self marketing	Total factor score
Factor:	Product	(Weig.d)	(Weig.d)	(Weig.d)	(Weig.d)	
PRICES	Meat	1 (5)	1 (5)	4 (20)	4 (20)	5
	Wool	5 (25)	1 (5)	2 (10)	4 (20)	
	Other	3 (15)	2 (10)	3 (15)	4 (20)	
ACCESS	Meat	5 (20)	3 (12)	4 (16)	0 (0)	4
	Wool	5 (20)	3 (12)	4 (16)	0 (0)	
	Other	5 (20)	3 (12)	4 (16)	0 (0)	
RELIABILITY	Meat	4 (8)	1 (2)	3 (6)	4 (8)	2
	Wool	4 (8)	1 (2)	3 (6)	4 (8)	
	Other	4 (8)	1 (2)	3 (6)	4 (8)	
CASH	Meat	3 (9)	2 (6)	5 (15)	5 (15)	3
	Wool	3 (9)	2 (6)	5 (15)	5 (15)	
	Other	3 (9)	2 (6)	5 (15)	5 (15)	
Importance of products (Stage two)						Prdct score
MEAT		(42)((168))	(25)((100))	(57)((228))	(43)((172))	4
WOOL		(62)((310))	(25)((125))	(47)((235))	(43)((215))	5
OTHER		(52)((156))	(30)((90))	(52)((156))	(43)((129))	3
Total double weighted score	(single)	(156)	(80)	(156)	(129)	
	double	634	315	619	516	
	[rank]	[First]	[Last]	[2nd]	[3rd]	

Source: PRA exercise with a herder near Khutul, in Selenge, March 1994.

The informant stressed that his rating of the company is slightly unusual in that the company offers highly attractive prices for his fine wool (he tends a rare breed of sheep and the company - Orkhon - belongs to the UB-based Bayankhangai wool production and processing concern, comprising of 14 companies) and because he is highly dependent on wool production, since he has few private animals (a situation he shares with many herders in ex-state farm areas). As can be seen from the table, for all other products taken together, private traders would generally rate better than the company. The consumer co-operative consistently rates worst - even worse than the inconvenient option of self marketing except in terms of access (since the latter involves travelling to urban areas and seeking out buyers). With the exception of wool here, the strength of private traders can be attributed mainly to better prices (in the case of meat) and to a better availability of cash as the basis for exchange. In more general terms, what seems to emerge from

this exercise is that private traders are considered preferable for live animal and/or meat marketing, whereas there is more effective competition amongst different channels for the marketing of other livestock products.

APPENDIX 4

THE IMPACT OF PRODUCTION RISKS ON MARKETING, AND VICE VERSA

The fact that herd growth is a primary concern for herders is highlighted by the fact that animal deaths (from climatic or other risks) appear to suppress levels of offtake and marketing from the surviving herds. Herders will forgo some consumption (normally gained through exchange) for the sake of rebuilding their herds, or preventing further reductions in the future. This is more important and more difficult for poor herders, as their levels of consumption are already extremely low and they have problems keeping their herds at sustainable numbers (given their exchange requirements) even under normal conditions. Large animal losses due to risk are therefore likely to damage small herders more than wealthy ones, and it is likely to take them longer to recover; this might be expected to increase inequalities in the distribution of animals (and thus overall levels of marketing for the longer term).

Evidence from the marketing survey carried out in Bayan Khongor, in a *sum* where herders suffered around 30-40 per cent herd losses (on average) as the result of a serious and unexpectedly heavy snowfall, *dzud*, in the spring of 1993, shows that both total livestock marketing incomes and numbers of animals sold were negatively affected by the proportional livestock losses. This was the case even when other factors such as herd sizes (after losses), distance from the *sum* centre and the experience of the herder were controlled for, as is shown in equations A5i and A5ii. So, from the point of view of the impact of risk on marketing, we can see that serious livestock losses depress marketing and income levels. This can, of course, be particularly serious for poor herders and may result in their taking longer to recover (if at all); it is therefore likely to be negative for asset distribution and poverty, in the medium and long term.

Equation A5i: The impact of proportional herd losses (due to *dzud*) on overall marketing incomes of 20 herders in Bayan Tsagan *sum*, Bayan Khongor, 1993

Total marketing incomes =		
a + Herd losses + Pre- <i>dzud</i> herd + Distance from <i>sum</i> centre + Age of householder + e		
Dependent variable = Household marketing income (Tugrik per household)		
Independent variables:	X Coefficients:	Students' T values:
Herd losses (%)	-530.8	(-2.9)**
Pre- <i>dzud</i> herd (head)	92.2	(5.7)***
Distance from <i>sum</i> (km)	-190.5	(-0.8)
Age of household head (yrs)	-104.7	(-0.4)
R squared = 72.1%	Sample (n) = 20	Degrees of freedom = 15

Source: Primary field data, Bayan Tsagan marketing survey, November 1993.

Equation A5ii: The impact of proportional herd losses (due to *dzud*) on the number of live animal sales of 20 herders in Bayan Tsagan *sum*, Bayan Khongor, 1993

Live animal sales =		
a + Herd losses + Post- <i>dzud</i> herd + Distance from <i>sum</i> centre + Age of householder + e		
Dependent variable = Live animal sales (head of livestock per household)		
<u>Independent variables:</u>	<u>X Coefficients:</u>	<u>Students' T values:</u>
Herd losses (%)	-0.138	(-2.3)**
Post- <i>dzud</i> herd (head)	0.001	(1.6)
Distance from <i>sum</i> (km)	-0.052	(-0.7)
Age of household head (yrs)	-0.035	(-0.5)
R squared = 55.0%	Sample (n) = 20	Degrees of freedom = 15

Source: Primary field data, Bayan Tsagan marketing survey, November 1993.

Although we have no specific evidence that small herders suffered proportionately higher herd losses than wealthier ones, we do have reason to believe that small herders will suffer more as a result of these losses, because of their relatively more inflexible ('cost' - inelastic) requirements for home consumption and exchange. It is likely to take small herders longer than wealthier households to recover from these shocks, and thus they may well contribute to a worsening distribution of livestock over the medium term, even if no such effect may be visible immediately.

Marketing and, more generally, wealth also influence the seriousness of the threat posed by a potential climatic disaster or some other production risk (such as an epidemic). Since the economic burdens of meeting the costs of production risks have by and large shifted back to individual herding households, herders' abilities to prepare themselves to minimise the impact of risks depend to a large extent on their incomes, which nowadays usually depend on livestock marketing.