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THE FINANCING OF GERMAN DAIRY CO-OPERATIVES
— AN EMPIRICAL INVESTIGATION

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The author is indebted to a large number of individuals and organizations for information and for help in establishing contacts in order to carry out the research for this study. In particular, grateful thanks are due to the German Raiffeisen Association, both in Bonn and in several of its regional offices throughout Germany, and to numerous individuals connected with the German dairy industry and involved in research in the dairy and co-operative sectors.

Above all, however, this study could not have materialised without the assistance of the managers of several dairies and dairy co-operatives, at both local and regional level throughout Germany, which the author visited in 1983. The confidentiality of much of the information they supplied is respected in this study so that while they must remain anonymous, their contributions do not remain unappreciated. The interpretation and presentation of this information is solely the responsibility of the author.

Introduction

Background to the study

In 1980, this Department published an empirical investigation into the financing of French dairy co-operatives (Haines, 1980). The purpose was to examine the strong framework of French agricultural co-operation in view of the extent of French co-operative activity in the food processing industry, and to "investigate empirically the physical and financial structure which have allegedly made French agricultural co-operation such a formidable economic force". The present study seeks to continue this work by venturing into the similarly strong German dairy co-operative sector which has the task of accommodating a 120 per cent self-sufficiency level in milk production*, great regional variations in supply and demand relationships, and a highly unfavourable farm size structure.

As with the French study, this investigation results from direct access to local sources. Personal interviews were conducted in German with the management of a wide range of different types of dairy co-operative, the published financial information put out by numerous additional co-operatives and co-operative bodies was also consulted, and the writings of German academics and others close to the German dairy industry were also studied. This procedure enabled the author to circumvent the apparently almost total lack of up-to-date information on the subject available in English, and to get behind the somewhat uninformative facade of German co-operatives' public financial disclosure. The type of investigation conducted also permitted the alternatives to the official view of German co-operation to be heard, and practical as well as the 'theoretical' solutions to the co-operative financing question to be examined.

Readers need to be aware that the German concepts both of financing and of co-operation may differ in many respects from those prevailing in the United Kingdom. As a result, translations of German expressions into the commonly-used English equivalents often gives rise to inappropriate

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* The study was conceived and largely completed prior to the European Community decision to introduce milk quotas.

connotations. While adhering for the most part to English phraseology, the author has often had recourse to fairly literal translation of German concepts in order to retain the flavour of the original; it is hoped that the explanations provided of unfamiliar terms are sufficiently clear.

As will become apparent from Chapter One, the German co-operative sector is hierarchically organized. Thus, information flows within the sector are formally strong in a vertical sense (they are also strong, though less formal, in a horizontal sense, as will be shown later). The method of investigation was therefore to work downwards through the hierarchy, since few co-operative managers were willing to assist the investigation freely without the tacit support of those higher up the hierarchical chain. Initially, considerable suspicion was encountered within the Raiffeisen organization as to the motives for the investigation; it became clear that considerable resentment has been aroused in the German dairy industry by what it sees as excessive protectionism by the United Kingdom, hampering imports and encouraging a high rate of domestic expansion. The UK was a market for which high hopes were held at the time of the UK's accession to the Treaty of Rome in 1973. This resentment, although not made overt by legal and political means as in the cases of Eire and France, is frequently and forcefully expressed in private to the British visitor. Generally, Raiffeisen suspicions were satisfactorily overcome, but not entirely so, with the result that two important regions of Germany (the North-West and the South-West) were somewhat more difficult to penetrate than the remainder. Nevertheless, a reasonable geographical spread was eventually obtained and the regional differences in the German dairy industry will be shown in the ensuing chapters.

Part of the reticence of the Raiffeisen movement is due to something of a seige mentality in the face of considerable critical interest in its success by German academics. The movement appears to be at pains to consolidate its position as a substantial force in the German agricultural industry, so much so that it has become somewhat inward-looking and intolerant of outside criticism. Much of the work on co-operatives and co-operative theory done in the co-operative institutes at German Universities is financed and supported by the Raiffeisen movement - a fact which, while not invalidating the research results per se, might reasonably be thought to contain an element of 'he who pays the piper calls the tune'. When theses or other research findings are produced which are openly critical of the way in which German co-operation has evolved, considerable enmity appears to be generated, including reservations concerning the future accessibility of Raiffeisen assistance to outside researchers. While the present author had no part in such wrangling, he was aware of its effects and was obliged to tread carefully at times.

In order to respect the confidentiality of the information supplied by dairy industry and co-operative representatives for this study, the identities and precise locations of the informants are not disclosed. Requests for anonymity were frequent, owing to the level of competition between individual dairy co-operatives and to the complexity of relationships within the dairy sector as a whole. The assurance that confidentiality would be respected was often an important factor in the readiness with which information was supplied, and for the sake of consistency anonymity has been maintained throughout.

The selection of dairy co-operatives to visit was made with regard to producing a sample of varied geographical location and covering the various types of dairy co-operative which make up the co-operative dairy sector in Germany. The different types include: small tax-exempt co-operatives with a limited range of activity; larger organizations not limited enough to be tax-exempt but still mainly serving a local area; dynamic co-operatives with substantial membership and a thrusting business outlook; co-operative centres whose membership consists of smaller local co-operatives and which are also necessarily supra-regional in outlook; and regional co-operative centres which seek to equalize regional dairy supply imbalances but whose role is becoming somewhat uncertain in current circumstances.

The structure of the German co-operative sector is described in detail in Chapter One. As will be shown, the theoretical structural hierarchy does not always conform to present-day reality in some important respects: consequently, the picture which would emerge from a mere examination of the German co-operative literature might in some ways differ from that emerging from the empirical investigations underlying this study.

Chapter Two then focuses explicity on the co-operative sector of the German dairy industry. The overwhelming importance of co-operatives is apparent in German milk collection, processing and marketing, although differing regional developments have taken place. The regional differences exist even where co-operatives are predominant in dairying and this predominance itself varies: in Bavaria, the co-operative movement is less strong in the dairy industry than elsewhere.

Chapter Three summarizes the legal provisions within which the co-operatives operate. This does not purport to be an exhaustive or rigorous treatment of a complex and interesting area, but even in a short study of this kind some background detail is required and throws considerable light on the main theme of co-operative financing.

Chapters Four and Five focus on the sources of finance available to German dairy co-operatives and the financial arrangements actually pursued by the dairies studied. Considerable variations in emphasis between individual dairy co-operatives were encountered, largely explainable in terms of the differing co-operative types outlined earlier. The commentary on dairies' financial statements relies substantially on detailed discussions with co-operative management; since information additional to that published was varied in quality, a co-operative dairy 'sample' as such is not employed but indications are taken of the various points discussed from a wide selection of dairies for which information is available.

Chapter One

Structure of the German agricultural co-operative sector

Historical perspective

The recent history and present-day structure of German agricultural co-operation are well documented* and require only brief outline in this study. While co-operative forms of organization have always existed - for example, in unions based on kinship or geographical area, or in the medieval guilds - , the co-operatives which emerged in Germany in the nineteenth century differed from these older forms in one important respect. Arising against the background of Liberalism, which laid stress on the development of the potential of the individual, the new co-operatives took account of their members' individuality and their economic and social independence. It was the Stein-Hardenberg reforms of 1810, with their emphasis on unbounded trading freedom, which placed the small independent craftsmen in peril as technology improved rapidly in the 1830s and 1840s. Only the larger businesses possessed the necessary financial capacity to take advantage of mechanical production methods, and Hermann Schulze (later known as Schulze-Delitzsch) founded a purchasing co-operative in 1849 in an attempt to protect the economic independence of small craftsmen.

Schulze-Delitzsch founded his co-operatives on the principles of self-help and unlimited liability. His rationale was that, in order to compete effectively with large businesses, small craftsmen must pool resources in order to buy their raw materials in sufficient quantities to obtain them at lower prices. The principle of unlimited liability was designed to make the co-operatives creditworthy. The Schulze-Delitzsch purchasing co-operatives were soon to be supported by his credit co-operatives and craftsmen's sales co-operatives.

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* See, for example, DGV (1980) for encyclopaedic treatment of all aspects of German co-operation.

While Schulze-Delitzsch's activities were concentrated in the urban sector, similar difficulties were being experienced by small agricultural producers. Although the peasantry had achieved personal freedom in the wake of the Stein-Hardenberg reforms, their economic independence was highly unstable. In particular, they were at a strong disadvantage vis-à-vis the traditional creditors of the countryside - the grain and livestock merchants -, and Friedrich Wilhelm Raiffeisen's first banking association was established in 1864 to provide credit to economically-weak small farmers.

Although Raiffeisen's initial motivation was charitable, he soon saw the benefits of the Schulze-Delitzsch principles of self-help and solidary liability. Raiffeisen co-operatives became characterized by voluntary membership, self-administration on an honorary basis, and no profit-making for the association as such. A co-operative law in 1867 gave legal substance and form to the co-operative associations then being founded, and by the time of Raiffeisen's death in 1888, 3000 Raiffeisen co-operatives were in existence.

A parallel organization, designed by Wilhelm Haas to provide financial assistance to farmers, followed the Raiffeisen example but without the ethical and moral support inherent in Raiffeisen's approach. This existed until 1930 when the two movements merged into a single organization of rural co-operatives. Subsequently, in 1972 this rural co-operative movement merged with the Schulze-Delitzsch co-operative system for tradesmen and craftsmen. Consequently, today's umbrella organization for the whole German co-operative sector (except for consumer co-operatives and the co-operative building societies) is the German Co-operative and Raiffeisen Association.*

From this brief historical survey it can be seen that German co-operatives were established on purely private initiatives. The members of co-operatives sought through joint activity to improve their individual economic situation and were concerned with collective self-help. This

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* Deutscher Genossenschafts- und Raiffeisenverband e.V. (DGRV)

remains today the official and legal view of co-operative business activity. Co-operatives continue to be proudly independent of Government influence as private enterprises in a market economy system, and claim that no special financial or tax privileges (with minor exceptions for a very limited number of small agricultural co-operatives) are accorded to them. (This claim will be examined critically with respect to dairy co-operatives in this study.) Co-operative banks in particular are anti-state in outlook and have a history of state hindrance rather than encouragement. The co-operative sector is built upon the principle of autonomous self-help, and its development has been generally slow, conservative and independent.

Present-day co-operative organization

German co-operation today is arranged as a three-tier system with national, regional and local levels. At the national level, the German Co-operative and Raiffeisen Association links together the three federal associations covering respectively the rural trading, processing and service co-operatives (the German Raiffeisen Association*), the credit co-operatives (the Federal Association of German Volksbanken and Raiffeisen Banks+), and the trading and service co-operatives of tradesmen and craftsmen (the Central Association of Co-operative Wholesalers and Service Co-operatives°). Figure 1.1 details the three-tier structure, with membership numbers and turnover/balance sheet totals.

The total membership of German co-operatives at the local level is around 11 million - this figure however includes multiple membership and thus does not represent the number of people who are co-operative members. The German Co-operative and Raiffeisen Association represents the interests of almost 10,000 co-operatives at all levels.

Two important features of this monolithic structure stand out. The first is its sheer size and all-embracing nature. The interlinked co-operative system which has evolved is a union of a wide range of legally independent enterprises, institutes and associations, forming a powerful economic force for the benefit of each entity and each member. The

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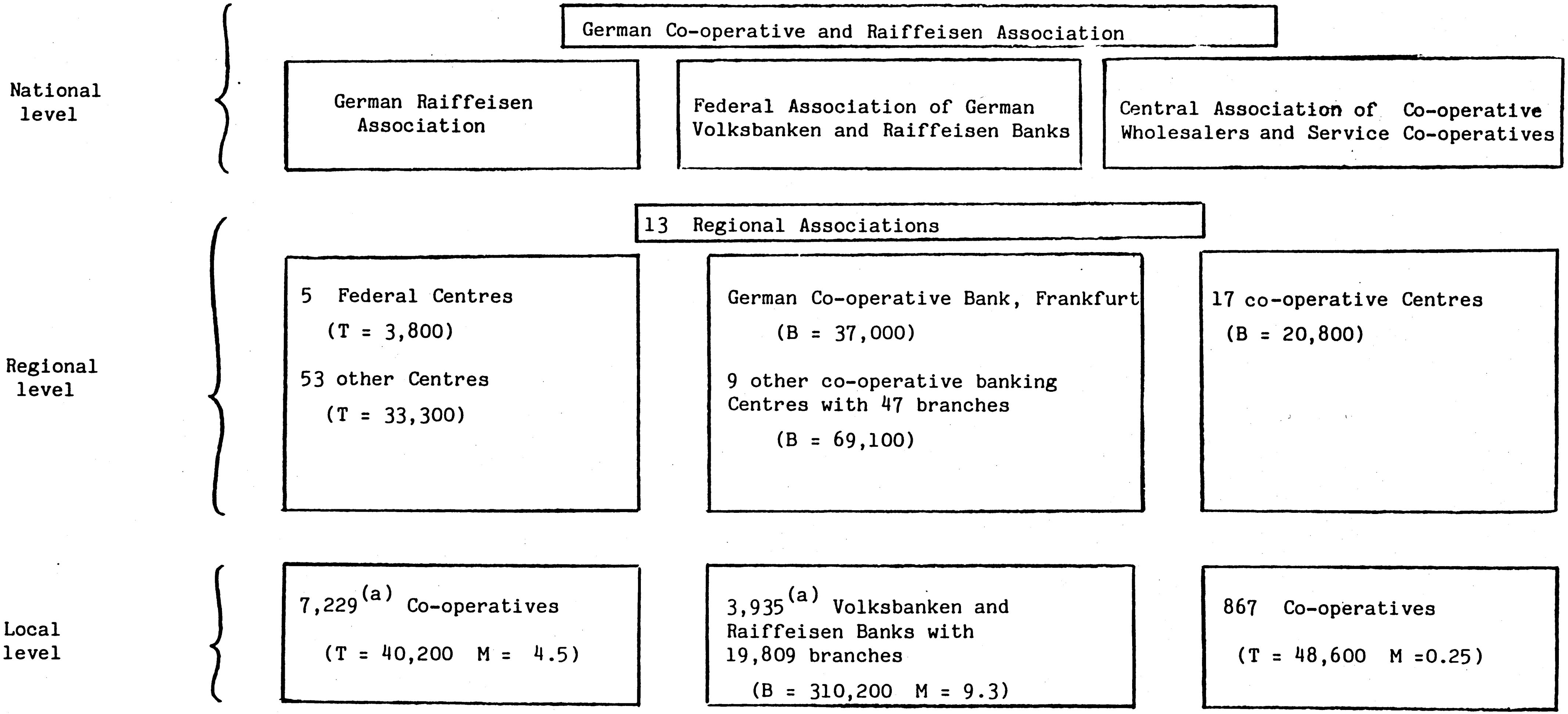
* Deutscher Raiffeisenverband
\+ Bundesverband der Deutschen Volksbanken und Raiffeisenbanken
o Zentralverband der genossenschaftlichen Grosshandels- und Dienstleistungsunternehmen

Figure 1.1. The three-tier German co-operative system



T = turnover excluding value-added tax, in millions of DM, 1981
M = membership in millions, 1981
B = balance sheet total, in millions of DM, 1981

(a) Including 2,332 credit co-operatives which also trade in goods. These are therefore included in both columns. For these, B = 104,200 and M = 3.0

Source: German Co-operative and Raiffeisen Association literature.

principle of mutual assistance has been extended from co-operation between individuals and autonomous businesses to co-operation between co-operatives themselves. The regional level co-operatives undertake duties which the local-level co-operatives cannot rationally perform, such as co-ordinating the latter's activities in the face of market concentration at the wholesale or retail level, or ensuring that local co-operatives' supply and demand requirements are met. The national level co-operative organizations in turn support the work of the regional level - for example, by providing auditing and business advisory services, developing joint brand-labelling, and co-ordinating sales at the inter-regional and international level.

The second noteworthy feature of the German co-operative organization is the extent of the rationalization which it has undergone in recent years. Table 1.1 gives an indication of the extent of the changes for the rural trading, processing and service co-operatives under the umbrella of the German Raiffeisen Association. While the membership and activity level of the Raiffeisen co-operatives was already growing substantially in the 1950s, it was the 1960s which saw the major restructing of the movement, with the disappearance of some 8,700 local-level co-operatives between

Table 1.1

Raiffeisen co-operatives, 1950 - 1982

	1950		1962		1972		1982
Number of co-operatives	21,300	(- 5%)	20,271	(-43%)	11,550	(- 39%)	7,015
Membership (millions)	3.00	(+ 17%)	3.50	(+11%)	3.90	(+ 17%)	4.56
Turnover (excl. value-added tax) (Bn.DM)	7	(+200%)	21	(+86%)	39	(+103%)	79

Source: German Raiffeisen Association literature.

1962 and 1972. The reasons given by the Raiffeisen Association for the structural changes are increased competition on the agricultural markets as the European Community developed, the modernization of the structure of German agriculture itself, and concentration at later stages in the marketing chain. This latter factor continues to be high on the list of bêtes noires of almost every co-operative manager spoken to in the course of this study and will be considered in more detail later. Another important factor in the Raiffeisen organization's changing structure is however, endogenous; its tight control of the whole co-operative sector has given the Raiffeisen Association itself the means and the incentive to press for effective rationalization both to optimise the size of the constituent undertakings and also to reduce the considerable inter-co-operative competition and rivalry. Again, this facet will be examined more closely in the course of this study with regard to dairy co-operatives.

The co-operative banking sector, under the umbrella of the Federal Association of German Volksbanken and Raiffeisen Banks, with its almost 20,000 branches in Germany represents the densest banking network in Europe. These banks are well-integrated into the German banking sector as a whole, so much so that individual non-banking co-operatives seeking outside finance do not necessarily regard them as more approachable than the non-co-operative banks and will therefore 'shop around' quite freely for the best arrangements to suit their circumstances. The co-operative banks are extremely popular with the public, since the other banks have tended to neglect the small saver, and maintained savings deposits totalling 151,042 million DM in 1981. The size of the co-operative banking sector and its integration into the German co-operative sector as a whole make it a major force in German economic life which can only be to the advantage of co-operatives in general.

The other non-agricultural co-operative sector, under the Central Association of Co-operative Wholesalers and Service Co-operatives, is also a potent economic force of some relevance to this study for it includes the food retail chains EDEKA and REWE.* The purchasing power

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*The members of these chains are independent retailers whose original motive was to counterbalance the market power of the consumer co-operatives.

of these retail chains is of considerable signifance to individual dairy co-operatives, particularly for the force of concentration which it exerts on them. The 37 (regional) EDEKA co-operatives had in 1981 a turnover of 20,000 million DM, while the 28 REWE co-operatives' turnover was 14,285 million DM: by way of comparison, the total turnover of all the 2,291 co-operatives in Bavaria (by far the largest region of Germany in terms of co-operative numbers) was 23,327 million DM.

Rural co-operation

In order to place German dairy co-operatives in context within the rural co-operative sector under the umbrella of the German Raiffeisen Association, Table 1.2 lists the numbers of rural co-operatives by type and shows their evolution over the last 30 years. Dairy co-operatives have borne the brunt of the structural rationalization, 4,329 of them having disappeared (the vast majority through merger) over that period. The loss of rural co-operatives has been running at an annual rate of over 4 per cent throughout the 1970s, although in 1982 it slowed to 3.7 per cent, the lowest figure for 12 years. In the dairy sector, opinions were divided as to whether or not this was a temporary phenomenon, with some co-operative managers feeling that the complex stresses within the German dairy industry could instigate a further wave of mergers. A feature which may hamper such a development is the German worry over unemployment levels and the cost of redundancy payments. Structural change in the rural co-operative sector has also had its regional variations: of the 3,320 co-operatives which disappeared through merger between 1972 and 1982, 58.2 per cent were in South Germany, 30.9 per cent in Central Germany and only 10.9 per cent in North Germany.

As well as their numerical importance within the rural co-operative sector, German dairy co-operatives account for a considerable proportion of the business activity. Out of a total 1982 turnover of 79,400 million DM (excluding value-added tax), milk accounted for 25,600 million DM or 32 per cent. The dairy co-operatives also employ a considerable proportion of the staff: out of a total of 147,700 persons

Table 1.2

The rural co-operative sector, 1952 - 1982

	1952	1962	1972	1982	% change
Credit co-operatives trading in goods	8,846	8,618	3,783	2,236	- 74.7
Purchasing and marketing co-operatives	2,607	2,201	1,556	957	- 63.3
Dairy co-operatives	5,613	5,102	2,970	1,284	- 77.1
Livestock marketing co-operatives	314	259	249	248	- 21.0
Fruit and vegetable co-operatives	196	188	184	123	- 37.2
Vine-growers' co-operatives	534	538	459	330	- 38.2
Others [(a)]	2,915	3,297	2,270	1,780	- 38.9
Co-operative Centres	71	68	79	57	- 19.7
TOTAL	21,096	20,271	11,550	7,015	- 66.7

(a) Includes egg-processing, milling, horticultural, breeding, cold storage, distilling, etc.

Source: Raiffeisen Yearbook, 1982.

employed in rural co-operatives in 1982, 29,000 were in dairies (20 per cent).

Co-operatives and the economy

German co-operatives (and the co-operative ethos) are firmly integrated into the country's general economic environment. It cannot be argued that the pervasiveness of co-operation is a factor in the sustaining of small businesses, agricultural or otherwise. Successful co-operative acivity does not prevent the eventual economic demise of some of those involved since, although costs may be reduced and individual turnover figures increased, co-operation in itself does nothing to increase demand for the products of the co-operators. As already shown, the number of co-operatives has recently been in sharp decline; the contrasting increase in the number of co-operative members conceals, however, a clear change of emphasis. While originally the hardships faced by small producers and craftsmen made the co-operative self-help philosophy attractive to such independent business people, economic and societal changes since that time have meant that an increasingly large proportion of members of German co-operatives today have the economic status of employees rather than of entrepreneurs. The original basis of co-operative activity, namely self-help by independent entrepreneurs in the face of difficulties caused to them by the operation of free market forces, has thus become much less important, and the tendency is reinforced by state intervention in and regulation of business activity in recent years.

This change of emphasis in co-operative activity has increasingly led to co-operatives becoming indistinguishable from other forms of business organization. This in turn leads to the question of a co-operative's attitude towards profit-making. Idealistically, since a co-operative's members (and providers of capital) and patrons are the same people (or businesses), the co-operative seeks to provide economic advantages to its members without the need to strive for profits. Prices to members can be so established that no surplus is produced and members benefit directly from their co-operative's selling or purchasing activity. In practice, co-operatives do seek to make profits, despite the fiscal disadvantages of doing so (which will be detailed later), for various reasons. These include the fact that many co-operatives deal with non-members and earnings from such transactions are clearly profits; the need for reserve capital which can as a rule only arise from profits; and the expectations of members or third parties for whom a successful image is inseparable from profits.

The evident importance of profitability to many successful German co-operatives has led some theorists to question the traditional view of co-operatives as cost-covering businesses and to substitute a view of co-operatives as profit-makers if not profit-maximizers. This leads to consideration of whether the co-operative as a legal form is superfluous, and in fact in the dairy sector it is noticeable that many 'co-operatives' are not registered as such.* Thus, while the dairy industry, through the overwhelming presence of the co-operative movement, is to a large extent in farmers' hands, the dairies in many large cities have the municipal authorities as shareholders up to 50 per cent.

In the dairy sector too, however, it is apparent that the relationship of members to their primary co-operatives is close, largely due to the relatively limited regional areas within which the co-operatives are active and to the common bond (and common problems) existing between dairy producers. This is strongly reinforced by the presence of producers in an honorary capacity on

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* Most co-operatives are registered as eG (eingetragene Genossenschaften). Company law also provides for the general commercial partnership (OHG - offene Handelsgesellschaft), the limited partnership (KG - Kommanditgesellschaft), the registered association (eV - eingetragener Verein), the stock company or private limited company (AG - Aktiengesellschaft), and the private limited company (GmbH - Gesellschaft mit beschränkter Haftung). Under German law, firms registered as eG, AG and GmbH have their own independent legal personality, while those registered as partnerships (OHG and KG) are simply associations of legal persons. Hence, for co-operatives there is a lack of the personal connection between members which exists for partnerships where the personal fortunes of members cannot be separated from that of their partnership company.

the management and supervisory boards of the co-operatives and has led to an equation of co-operative membership with local democracy, as local elections are held and the local community aspect played on by co-operative management. The more progressive co-operatives were noted to be particularly keen on maintaining such close links with the membership. The relationship between a co-operative and its members is further personalised by the issue of frequent newsletters and the sale of dairy requisites and dairy products direct to the farmer from the milk collection lorries. In the case of one co-operative visited for this study, noted as particularly industrious in forging strong links with its membership, one quarter of the membership were no longer milk producers, suggesting a strong element of loyalty to their co-operative even if many were hedging for the future when they might return to milk production.

The personal element in the relationship between co-operatives and their members, which is normally absent in other forms of business, should not be underestimated, particularly in circumstances of increasing business concentration and the lack of social orientation in industrial societies. The maintenance of this personal element will be a challenge to the co-operatives as concentration increases in their sector. It will also be placed under strain by developments in dairy production. As large holdings become larger and the number of part-time dairy farmers increases, the one-man-one-vote principle will become increasingly strained as large producers see themselves subject to the views of the majority. Large producers may also begin to question present pricing policy, whereby small producers yielding small quantities for collection are cross-subsidized by larger producers from whom collection is relatively easy, particularly if part-time small producers are seen as only keeping cows as an insurance against unemployment and hence as tolerating low prices. Such strains in co-operative principles in the dairy sector do not yet appear to be materialising but cannot be discounted for the forseeable future.

The co-operative ethos declines dramatically as one moves up the three-tier co-operative hierarchy of the dairy sector. Local-level dairy co-operatives, involved with their producer-members on a day-to-day basis, will normally at least pay lip service to co-operative principles and recognize that the furtherance of members' interests is an integral part of their activity. Regional co-operative dairy centres naturally have a broader view of their role in the dairy industry, and while individual managers may claim personal commitment to co-operative ideals, this is not always reflected in the organization and activities of the centres. At the top of the three-tier pyramid, the German Dairy Office * is concerned with German dairy exports and claims no real interest in co-operation as such.

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* Deutsches Milch-Kontor GmbH, in Hamburg

Chapter Two

Co-operatives and the German dairy industry

Co-operative involvement in dairying

The involvement of co-operatives in the German dairy industry is substantial. Table 2.1 shows their share of total milk deliveries and of the various product markets, and this predominance has caused many to speak of a virtual Raiffeisen monopoly in the dairy sector. It is certainly the case that the placing of the market so firmly under the Raiffeisen umbrella has led to an accommodation between milk surplus and milk-deficit areas such that the former do not swamp the latter in preference to using the outlet of intervention. This has contributed to the overall producer price in Germany (a milk surplus country) being the second highest in Europe after Italy (a milk deficit country) according to Raiffeisen statistics quoted in Table 2.2.

Opponents of this view that co-operatives as a group are over-predominant point to the considerable competition between individual co-operatives, particularly in the large consumer areas. This has led to the wide variety of dairy products available to the German consumer, with one dairy co-operative visited for this study maintaining a selection of 200 different products of which 140 were produced by the co-operative itself. The proximity of the large Italian market is also a considerable factor in the maintenance of a high average German producer price: the Italian milk deficit lies between 30 and 40 per cent, and some 30 per cent of Bavarian milk, in liquid and processed form, is said to be exported across the Alps.

Table 2.1

Co-operatives' share of the German dairy market, 1980-1981 (%)

	1980	1981
Total milk deliveries to dairies	79	79
Liquid milk	75	74
Condensed milk products	32	31
Dried milk products	84	78
Butter	85	85
Cheese	72	72

Source: Raiffeisen Yearbook, 1981.

Table 2.2

Producer prices for milk in EEC Countries, 1979-1981
(ECU/100 kg; conversions at average market exchange rates)

	1979	1980	1981	average 1979-1981
Italy	23.11	24.49	26.00	24.53
Germany	22.08	21.89	22.38	22.12
Netherlands	19.78	20.65	21.47	20.63
Denmark	19.56	20.31	21.96	20.61
United Kingdom	16.40	19.88	22.67	19.65
France	18.07	19.32	20.50	19.30
Belgium	19.14	18.83	19.82	19.26
Luxembourg	18.40	18.54	18.61	18.52
Ireland	17.30	16.94	18.89	17.71

Source: Raiffeisen Yearbook, 1982, quoting official communication of the EEC Commission.

The main justification given for the increasingly high and concentrated commitment of Raiffeisen in the dairy sector is the process of concentration occurring in food distribution generally. The number of retail food outlets in Germany declined from 110,000 to 88,500 between 1976 and 1982, and today five large retail groups dominate the market. On the wholesale side, 1970 to 1981 saw a halving of the number of wholesalers (not only in the food industry), with 15 per cent of those remaining accounting for 70 per cent of the turnover which suggests a continuation of the concentration process. One third of the turnover of food wholesalers is through cash and carry self-service outlets. In all, in the food distribution sector it is said that 180 buyers order 80 per cent of all food. In the light of this degree of concentration and the market power which it implies, the 400 or so German co-operative dairies which actually process and market their own products is not seen as an unduly small number. A frequent complaint among smaller dairy co-operatives is that a wide range of products was necessary in order to obtain contracts from food firms and that the larger dairies are therefore favoured. Individual food shops have little buying freedom but must buy from a central source. In this sense co-operatives see their marketing outlets limited and the co-operative sector as a whole put under pressure by the concentrated nature of the food distribution sector. It is perhaps surprising that vertical integration involving the dairy co-operatives and retail food chains does not appear to have taken place.

Table 2.3 shows the decline in the number of co-operative dairies in recent years, and Table 2.4 their size structure in terms of milk delivered. In 1982, 97 dairies alone took virtually two-thirds of the 18.7 million tonnes of milk delivered and 45 dairies took over 47 per cent of it. The largest dairy took over 500,000 tonnes* while many small dairies still take less than 1 per cent of this, suggesting to many that structural improvement will continue for some time yet.

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* In Holland, by contrast, three dairy co-operatives each take over double this amount and jointly take almost two-thirds of the total milk delivered.

Co-operation between dairies has caused problems with German cartel legislation, which means that the market balance between dairies and the buyers of their products will continue to be maintained largely through the continuing disappearance of the less competitive dairy co-operatives.

Table 2.3

The co-operative dairy sector, 1960-1982

	1960	1970	1980	1982
No. of co-operative dairies	5,267	3,705	1,493	1,284
of which: no. of milk-processing dairies	1,524	823	452	416
No. of members ('000)	894	721	457	417

Source: Raiffeisen Yearbooks.

Table 2.4

Deliveries to co-operative dairies, 1972 and 1982

Annual milk deliveries (tonnes):	1972 No. of dairies	1972 % of milk	1982 No. of dairies	1982 % of milk
up to 5000	149	3.4	45	1.3
5001 - 10000	153	7.5	61	3.2
10001 - 20000	138	13.0	91	7.9
20001 - 50000	125	27.5	124	21.9
50001 - 100000	44	20.7	52	18.6
100001 - 150000	11	9.0	22	14.8
over 150000	12	18.9	23	32.3

Source: Raiffeisen Yearbook, 1982.

The Raiffeisen organization itself has hit back strongly at recent assertions that it is an inordinately powerful body with unjustified economic privileges. It points out that twenty years ago it was referred to as a sleeping giant not fulfilling its potential and that it was then encouraged to improve agriculture's lot by seizing any opportunities for closer integration. It had responded by asserting itself in the market and becoming competitively successful through cost-cutting and recognition of the importance of consumer demand. The Raiffeisen organization also stresses that each of its member co-operatives is an independent and self-reliant entity in both a legal and commercial sense whose loyalty is primarily to its membership; and that all co-operatives of any size are treated for taxation purposes just as any other capital companies, paying corporation tax at 56 per cent on profits in addition to trading tax and property tax, and having their dividends treated in the same way as those paid by other firms. The Raiffeisen movement also declares that it has no claims to a monopoly position and that it is a strong supporter of fair competition in an increasingly competitive environment.

The scepticism with which such claims are received in some German academic circles has already been referred to. Sceptics point to the fact that individual milk producers effectively have little choice of outlet for their milk, and claim that the Raiffeisen organization provides insufficient information upon which outsiders can conduct critical economic analysis.

Activities of co-operative dairies

The average daily delivery from producers and the collection costs involved in the various German regions are given in Table 2.5. The average delivery figures are important determinants of the collection costs incurred by dairies, and individual dairies spend a substantial amount of time and effort on cost-minimizing collection strategies.

Table 2.5

Average daily deliveries from milk producers and collection costs, 1980

	Deliveries (kg. per day)	Collection costs* (Pf. per kg.)
Schleswig-Holstein	337	1.59
Niedersachsen (Lower Saxony) incl. Weser-Ems	202	1.62
Nordrhein-Westfalen (North Rhine Westphalia)	192	2.06
Hessen	113	2.65
Rheinland-Pfalz	101	2.38
Baden-Württemberg	86	2.31
Bayern (Bavaria)	120	2.13
All Germany	146	2.02

* excl. quality testing costs - approx. 0.20 Pf./kg.

Sources: BML statistics and Raiffeisen, Kiel.

This activity has increased in importance as a result of the wave of mergers in the co-operative dairy sector, since individual dairies must increase their collection area and may take on areas from which milk collection is relatively expensive. On the majority of farms, collection is from bulk tanks which in some instances have been purchased with the help of the producers' co-operative dairy - the co-operatives have used grants to producers for the purchase of tanks to encourage long-term membership by, in one case, not requiring repayment if a producer remains a member for the following ten years but requiring repayment of 50 per cent if the producer terminates his membership after five years. In 1980, 3,422 collection lorries collected on average over 6 million kilograms of milk each, a capacity of some 17,240 kilograms per day.

Such figures for collection costs hide wide variations between dairies resulting from the density of milk producers in their area, traffic conditions, and age of collection tankers. In Lower Saxony, where in 1981 collection costs amounted to 1.62 Pf. per kg. and quality testing costs an additional 0.19 Pf. per kg., the range between dairies was from 0.76 Pf. per kg. to 3.17 Pf. per kg., providing the average of 1.81 Pf. per kg.

Practice concerning the frequency of collection varies between dairies, depending on cooling facilities, the purposes for which milk is used, and the farmers' expectations in view of the clear encouragement for a high-quality milk. One small co-operative visited, despite an urgent desire to cut collection costs, would not countenance a reduction in its daily collection due to its involvement with fresh products and its consequent careful encouragement of its members to produce best-quality milk. For Emmentaler cheese-making, where bacteriological content is important, dairies may even collect milk twice per day. The frequency of collection is also a regional matter: collection every two days is particularly apparent in North Rhine Westphalia but rare in Bavaria. This has to do with the density of milk production, which may be declining in areas where farmers are going out of milk, and the quantity of milk produced per agricultural hectare in Bavaria is considerably above the national average. Nevertheless, there appears to be some tendency for many dairies to regard collection every two days as the norm.

Milk delivery contracts between local-level co-operative dairies and their farmer-members specify in considerable detail the quality requirements for the raw milk - only completely pure, healthy milk is acceptable. Violation of such requirements can result in no payment for the day in question plus deductions from the previous 15 days' milk payments. Fines may also be levied for dishonest practices. Delivery contracts specify that a member must deliver all the milk produced, except for that required immediately in the household or for feeding on the farm, exclusively to the co-operative. Minor violations are normally overlooked as long as the producer's deliveries to the dairy do not fluctuate significantly from day to day.

Equally, the co-operative is obliged to accept delivery from members, but not from non-members. The details of the milk delivery arrangements are left to the co-operative, which also sets the delivery charges. Co-operatives also deliver to their members skim-milk, skim-milk powder, buttermilk and whey for use as feed, and butter, cheese and other dairy products for members' own use, with maximum quantities determined in relation to the amount of members' milk delivered.

Some dairies, particularly those not registered as co-operatives who do not have to pay the same price to all milk deliverers, prefer to contract with associations of dairy producers rather than with individual farmers. While this may ease the administrative burden, it entails the risk that should such associations decide for whatever reason not to renew a delivery contract, sudden fluctuations in the quantities of milk delivered may occur. One non-co-operative dairy studied was experiencing difficulty of this kind, as opinion and personality differences led to ruptures in relations with some of their producer groups; the extent of the disruption would have been far less if contracts had been with individual producers.

This method of contracting with farmer associations naturally leads to much complicated and delicate negotiation as agreements on price suitable to all parties are reached. An instance quoted is that of a dairy willing to pay a price acceptable to the farmers but unwilling to show publicly that it might be exceeding the rates paid to other farmers or the rates of its competitors; a compromise was reached whereby the price was 'made up' by the dairy financing the building of a new bell tower for the local village church!

Many co-operative dairies buy in milk additional to that obtained from their members in order to make fuller use of productive capacity. Delivery contracts with smaller dairies in the neighbourhood are common. Small dairies, too, unable to process their surplus skim-milk to powder through lack of drying facilities, frequently sell to skim-milk powder plants. Some of the smaller dairies reduce activity to a minimum during weekends and holidays and simply skim their milk, retain the fat for the following week's processing activities, and transport the skimmed milk to drying plants: this accounts for sharp increases in skim-milk powder production in months with several bank holidays. Larger dairies with more than one factory will transport milk between plants in order to make optimal use of capacity in peak periods.

The dairies' use of milk is shown in Tables 2.6 and 2.7. The total milk delivered to dairies in 1982 was 93 per cent of total milk produced in Germany and amounted to 23.6 per cent of the milk delivered to dairies in the European Community. Just over one-third of the German total emanated from Bavaria alone.

Table 2.6

Milk deliveries to all dairies, 1982

	('000 tonnes)
Schleswig-Holstein	2,378.8
Niedersachsen (Lower Saxony), incl. Weser-Ems	4,950.4
Nordrhein-Westfalen (North Rhine Westphalia)	3,135.8
Baden-Württemberg	2,316.7
Bayern (Bavaria)	7,935.9
Other regions	2,952.2
All Germany	23,669.8

Source: MIV statistics

Table 2.7

Production of dairy products, 1982

		('000 tonnes)
Liquid milk		3,513.9
of which:	pasteurized	1,825.4
	UHT	1,590.5
Condensed milk		550.0
Milk powder (not skim)		68.7
Skim-milk powder		571.7
Skim-milk returned to producers		1,741.2
Cheeses		962.6
of which:	hard types[a]	153.3
	medium types[b]	188.4
	soft types[c]	77.3
	processed	123.5
	sour types	27.1
	fresh cheese and quark	393.0
Fresh milk products (excl. fresh cheese and quark)		592.9
of which:	yoghurt	120.1
	sour milk	131.3
	milk drinks, desserts etc.	341.6
Butter		555.7
Casein (from skim-milk)		12.6
Whey powder		133.1

(a) e.g. Emmentaler, Cheddar, 'Chester'

(b) e.g. Tilsiter, Edam, Gouda, blue-veined

(c) e.g. Camembert, Brie, Limburger

Source: MIV Statistics

Of the liquid milk sales, UHT milk took 46.5 per cent of the market: this share is rising, particularly at the expense of low-fat pasteurised milk. In fact, demand for low-fat milk in general is falling in favour of demand for full-fat milk. The popularity of UHT milk is due to its storage potential in the home, the fact that it does not need refrigeration which has advantages in the home and at the retail level, its ease of distribution to areas of low population density, and not least its price advantage over pasteurized milk. The relatively low price of UHT milk is the result of circumstances in both supply and demand. On the production side, the last few years have seen an enormous increase in production capacity as dairies have made the fairly small investments required to produce a product with few technical difficulties. This overcapacity at the dairy level has been aggravated on the demand side by the fact that one retail chain, with a market philosophy of concentrating on non-perishable goods of reasonable quality, low price and high turnover, is said to buy 40 per cent of the UHT milk on offer. To make matters worse for the dairies, the retailer in question has been using UHT milk as a loss leader. The result has been losses for many individual dairies on this product. The attraction of a possible new overseas outlet, such as the UK market, is clear.

As far as could be ascertained, typical cost and return levels for UHT milk in co-operative dairies have been as in Table 2.8 over the past few years. Net returns have invariably been below producer prices, although some successful dairies have pruned costs sufficiently to make a small margin.

Comparable returns and costs for pasteurized full-cream milk are given in Table 2.9. Seen historically, 1970 was a particularly poor year for the dairies, whereas since 1971 the margin over producer price has remained steady at between 5 and 8 Pf. per litre, representing a considerable decline in real terms.

A considerable proportion of the condensed milk production shown in Table 2.7 is exported: around half the exports go to Algeria and one quarter to Nigeria. This dependence on OPEC buyers worries the German dairy industry in view of these countries' unstable purchasing power position. Small amounts of Dutch condensed milk are also bought in by German dairies to augment their product selection.

Table 2.8

Costs and returns from UHT milk production, 1975-1982

(Pf. per litre)	1975	1979	1982
gross returns	78	79	88
production costs	25	21	22
selling costs	6	7	7
other costs	3	4	5
total costs	34	32	34
net returns	42	48	55
approximate producer price*	50	53	61

* Standard quality milk prices excl. value added tax. Pricing according to standard quality will be discussed later in the chapter.

Table 2.9

Costs and returns from pasteurized full-cream milk, 1970-1982

(Pf. per litre)	1970	1975	1979	1982
gross returns	53	81	85	97
production costs	10	12	12	15
selling costs	5	9	9	11
other costs	2	4	3	4
total costs	17	25	24	30
net returns	35	56	60	67
approximate producer price	34	50	53	61

Milk powder production is also largely for export, about half the exports going in small packets to OPEC countries and most of the remainder in large packets to other EEC countries from where they are also exported to third countries. The non-exported milk powder, together with small amounts imported, is largely used in the German chocolate industry.

Skim-milk powder production is regarded as the barometer of surplus milk production generally. Its production in Germany depends on the levels of deliveries of milk to dairies, the amount of skim-milk returned in liquid form to producers for livestock feed, and the demand for German liquid milk from Italy. In 1982, skim-milk powder production in Germany rose by 8 per cent overall, but this conceals the fact that the rise was 21 per cent in Schleswig-Holstein and 12 per cent in Lower Saxony; in contrast, south Germany, under the influence of the Italian market, showed a rise of only 3 per cent in Baden-Württemberg and a fall of 8 per cent in Bavaria.

Table 2.10 shows the 1982 production of skim-milk powder and the amounts of skim-milk returned to producers in the various German regions. In southern Germany (Baden-Württemberg and Bavaria) relatively little skim-milk is returned to producers, again reflecting the strong Italian demand for liquid milk in those regions. In other areas

Table 2.10

Skim-milk powder production (A) and skim-milk returned to producers (B), 1982

	A ('000 t.)	B
Schleswig-Holstein	74.7	624.4
Niedersachsen (Lower Saxony) incl. Weser-Ems	206.8	531.0
Nordrhein-Westfalen (North Rhine Westphalia)	63.4	387.3
Baden-Württemberg	70.9	54.1
Bayern (Bavaria)	81.7	65.8
Other regions	74.2	78.6
All Germany	571.7	1,741.2

Source: MIV Statistics

skim-milk is used frequently by producers for feeding to calves, pigs and poultry; such deliveries from the dairies tend to fluctuate strongly according to the supply/demand situation for liquid milk, and are a useful outlet for unwanted skim-milk, particularly in view of the EEC subsidy on skim for animal feed which rose sharply in 1982. This subsidy is not sufficient, however, to prevent the build-up of large and increasing intervention stocks.

Exports of liquid milk to Italy totalled 1.5 million tonnes in 1982, an increase of almost 15 per cent over 1981. 1981, however, showed that short-term upheavals in this lucrative trade are possible. Imports were hampered by the Italian authorities, milk was also on offer from France, and for a time a large oversupply was apparent which filled the capacity of the milk-powder drying plants throughout south Germany. In the long-term, however, Italy is likely to remain an important market for German milk, and the consequent substantial demand for the raw product in south Germany affects not only the producers of skim-milk powder but also other processors in that the price they must pay for their raw material has implications for their competitiveness vis-à-vis processors in other regions of Germany and elsewhere in the EEC. As a result, the German Dairy Industry Association* is seriously concerned about the long-term future of sections of the south German dairy industry.

The import and export of skim-milk powder is very dependent on currency movements. German exports to third countries are made within the framework of the World Food Programme, and EEC demand for pig and poultry feed is also apparent. In addition, almost all large skim-milk powder producers in Germany make deliveries to Italy, both for human consumption and for animal feed purposes.

Within Germany, the cheese market is expanding at a faster rate than in the EEC overall. Nevertheless, production is such that over 40 per cent of German hard cheese produced is exported, with limited imports mainly from Switzerland. Medium-hard cheeses are also exported, largely to Italy and outside the EEC, particularly Japan. The significance of the Japanese

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* Milchindustrie-Verband e.V. (MIV)

market seems to vary between dairies: clearly the strict bacteriological standards applied by the Japanese can be expensive to meet (and to fail).

German production of medium cheeses is almost matched by imports, the majority from Holland, but also from Denmark and France. Soft-cheese production has been falling, largely due to the recent difficulties of exporting Feta cheese to Iran, but the long-term outlook for domestic consumption of Camembert and Brie types is thought to be good, as is the potential for exports to non-EEC markets, especially Austria, North America and Australia. The keeping-qualities of processed cheese also make it an attractive export prospect. Over one-third of production is currently exported, largely to Italy, Austria, the USA and, increasingly, the oil-producing countries.

Sour-milk cheese is a German speciality with a specialist market. Producers are increasingly confronted with the difficulty that the retail trade is losing interest in such products with a limited shop turnover, and the buying power of retailers is causing the production of sour-milk cheese to become unprofitable. Fresh milk products, on the other hand, including fresh cheese and quark, are in demand within Germany: the main fresh cheese products concerned are those with added herbs.

The German market for <u>yoghurt</u> is supplemented by imports from Switzerland (fruit yoghurt), while considerable exports of natural yoghurt are made to Holland. The market for milk-based desserts, using added fruit and confectionery, is substantial but stagnant.

Over three-quarters of 1982 German <u>butter</u> production was devoted to sour-cream butter which is acceptable for intervention purposes. Imports and exports of butter are influenced by currency movements within the EEC, with imports into German intervention stores largely from Holland in 1982, and by political considerations such as the ban on butter exports to the USSR. Of the 147,000 tonnes of German butter exported in 1982, 27 per cent went to Belgium and Luxembourg, 15 per cent to Italy, and 13 per cent to Holland. The regional difference in butter production trends is significant: where extra milk production cannot be absorbed by the liquid milk, cheese and condensed milk markets, butter production shows substantial increases. Thus, in 1982 production rose by 9.3 per cent in Schleswig-Holstein and 5 per cent in Lower Saxony, but stagnated in Baden-Württemberg and fell by 2 per cent in Bavaria due to increases in cheese production and in particular to substantial exports of liquid milk to Italy.

Domestic consumption trends for the major dairy products in Germany are shown in Table 2.11. Although liquid milk consumption fell sharply in the mid-1970s, this decline has been reversed since 1977. Condensed milk demand fell steadily, highlighting the importance of export markets for this product. Cream and fresh cheeses (including quark) have shown a substantially rising trend: from the dairy point of view, however, these are rarely profitable products due to oversupply and strong price competition at the retail level. Butter, like full-cream liquid milk, appears to have found favour again with the public since the mid-1970s at the expense of margarine. As with cheese, the buoyant consumption trend is attributed substantially to the wide variety on offer and the promotion of regional specialities.

This brief overview of the products of the industry gives some indication of the variety of production processes employed by the dairies and the importance to the dairy industry of marketing. Throughout the industry it is felt that the solution to the EEC milk surplus problem cannot be found on the farm side alone. This is particularly important in a co-operative context, since co-operative dairies have a concern for their members' welfare and would not wish to be seen to side with those desiring to 'break faith' with milk producers who have been encouraged, not least financially, to increase milk production and improve dairying efficiency generally. There is also no wish among the dairies to freeze the present production structure of over 400,000 milk producers with an average herd size of 13 cows, nor is there any desire for dirigiste measures which could impede the current high levels of technical progress and healthy competition within the dairy industry.

Table 2.11

Consumption of dairy products (and margarine) in Germany, 1975-1982

(Kgs per head)	1975	1980	1981	1982
Liquid milk:	74.2	70.4	70.8	71.2
whole milk (%)	72	72	74	74
semi-skimmed (%)	17	21	20	20
skimmed & buttermilk (%)	10	7	6	6
Condensed milk:	7.0	6.2	6.4	6.1
Cream:	4.1	5.0	5.2	5.3
Cheese:	11.9	13.6	14.1	14.4
fresh cheeses (%)	45	44	44	44
other cheeses (%)	55	56	56	56
Butter:	6.8	7.1	7.1	7.1
(Margarine:	8.6	8.3	8.3	8.4)
Soured milk products:	10.8	13.8	14.2	14.5
yoghurt (%)	48	49	49	48

Sources: Deutsche Molkerei-Zeitung, München
Milchversorgung Rheinland, Köln

Despite the strong Raiffeisen co-operative presence in the dairy sector, the variety of activities conducted by individual dairy co-operatives is striking. A wide range of different products on offer is seen by most dairies to be essential to their market-oriented strategies. German dairies in general do not see themselves simply as purveyors of a raw material obtained from their members, but recognize the need to transform that material themselves into a wide range of marketable products if their members' true interests are to be met. Table 2.12 shows the numbers of dairy firms (not only co-operatives) engaged in the production of various products. Each dairy appears

Table 2.12

Dairies by product, 1973 and 1979

Dairies producing:	1973 no.	1973 %	1979 no.	1979 %
Fresh milk products	734	90	589	94
Condensed milk	20	2	16	3
Milk powder	127	16	101	16
Hard cheese types	74	9	72	12
Medium cheese types	150	18	121	19
Soft cheese types	124	15	78	13
Processed cheese	22	3	18	3
Sour cheese types	74	9	50	8
Fresh cheese	433	53	323	52
Butter	692	85	516	83
Casein	8	1	7	1
Total no. of dairies	812	100	624	100

Source: BML Statistics

on average more than three times on the list in both 1973 and 1979. Fresh products (both milk and cheese) and butter are particularly spread among dairies, while products such as condensed milk, processed cheese and casein tend to be concentrated in a few specialist hands. Increasing specialization does not generally appear to have been a feature of the 1970s, except in so far as the total number of dairies declined. This decline is also to some extent responsible for the lack of specialization: one large dairy co-operative visited has arisen from the fusion of about 40 small dairies, many of which had their own specialities which have now been incorporated into the production pattern of the present co-operative. The concern of dairies to maintain a broad product base is also noticeable in the extent to which they buy in products which they are unable to produce themselves. These include foreign cheeses, butters from other regions and specialist items such as desserts, and reflect a feeling that a wide offering of products is necessary if contracts are to be won in the food distribution sector. In short, however much a dairy might feel that specialization was desirable at the production level, the current degree of competitiveness is felt to involve too high a degree of marketing risk if specialization is taken too far.

This variety of activity and frequent lack of specialization at the individual dairy level, despite the guiding presence of the Raiffeisen co-operative movement, is symptomatic of a wider and surprising lack of organization noticeable within the German co-operative dairy sector and which permeates the three-tier Raiffeisen structure outlined in Chapter 1. This lack of organization derives from the early 1970s when, under EEC instigation, the German regulations controlling the dairy sector* were lifted. These regulations had prescribed areas of operation for the dairies and their lifting was a contributory factor in the wave of mergers which took place during the 1970s.

The theoretical purpose of the three-tier Raiffeisen structure as applied to co-operative dairying is clear: milk surpluses should flow upwards from the local-level co-operatives to the regional co-operative centres and thence to an apex body for export. In this way, each level would be able to satisfy its own marketing requirements in an orderly way with a suitable outlet for any excess, and the export of the national surplus would be the responsibility of one body, the German Dairy Office in Hamburg. This is the central agency of the German co-operative dairy industry, 49 per cent of whose shares are held by the regional co-operative dairy centres and the remainder by firms in the dairy industry and by the German Co-operative Bank+.

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* The so-called Milchmarktordnung

\+ Deutsche Genossenschaftsbank, Frankfurt – the apex organization of the co-operative banking sector.

This tidy three-tier model of the co-oeprative dairy sector does not function so smoothly in reality. Competitive pressures and a maverick entrepreneurship among many successful co-operative dairy managers have ensured that many local dairies and co-operative centres have wide horizons, even beyond Germany. This is partly the result of the relationship between production and consumption of milk, which varies enormously between regions and hence determines the market orientation of local-level dairies. One co-operative visited for this study (in the Ruhr) sold all its milk and milk products locally, while at the other extreme another co-operative visited (in north Bavaria) exported 96 per cent of its milk beyond its regional boundary. In addition, both the regional co-operative centres and the German Dairy Office are frequently criticized for bureaucracy, lack of flexibility and heavy-handedness in their marketing efforts. Co-operative managers frequently stressed that a nimbleness of touch and entrepreneurial flair are the essential ingredients in the export of dairy products - qualities notably lacking in large central agencies.

The disruption of the three-tier model can be illustrated by the example of butter in one German region. Originally it was intended that each dairy should pay a levy to finance a regional centre which would dispose of all butter; the levy would be based on each dairy's butter production and encourage dairies to market their butter through the centre. The system failed, largely due to the desire and ability of many individual dairies to market their own butter directly without the need for the regional centre. At least one regional centre pays its member co-operatives a fidelity bonus if all cheese is sold through the centre - 5 Pf./kg for Emmentaler and 3 Pf./kg for other cheeses. From the other side of the fence, representatives of the regional co-operative centres argue that it is only the traditional pride of local-level co-operatives and the personal vanity of their managers who wish to 'be seen' in the market which prevents a more organized approach which would allow the regional centres to channel all inter-regional transactions.

The result is that while local-level dairy co-operatives often feel obliged to become members of regional co-operative centres, they prefer to conduct their own inter-regional milk transfers. It is common to find that delivery contracts for, say, cheese are not enforced since the managers of the local-level dairies are able to market their products satisfactorily themselves. This leaves the regional co-operative centres as intervention buyers of last resort for the smaller, less market-oriented co-operatives in their area, and as agents for the procurement (often from abroad) of products to supplement the range offered by the larger successful co-operatives. Only one of the regional dairy co-operative centres appears to have been able to organize affairs in its region to the extent that dairies are encouraged to specialize in a narrow range of products while the regional centre itself takes on the role of a central exporter.

It is said that while 79 per cent of all milk delivered to German dairies is purchased by the co-operatives, the milk equivalent of the products sold by these co-operatives on the markets is only about 65 per cent of that of all German dairy products. This would imply that the co-operative dairies sell a not insignificant proportion of their milk to non-co-operative dairy firms. Figures published by the regional association for the Rhineland in Cologne show that 12 to 13 per cent of milk delivered to its co-operatives is passed on to dairies who are not members of the association - many of these dairies are undoubtedly not co-operatives.

The connections between the co-operative and non-co-operative sectors are complex and informal and probably not fully appreciated by the co-operatives' membership. The entrepreneurial attitudes of co-operative managers are again in evidence here, and the overwhelming majority of the managers consulted during the research for this study were hard-headed business managers with few idealistic illusions about co-operative principles but fully cognizant of the business advantages and disadvantages to be gained from having a co-operative legal form.

The concensus among them was that co-operative dairies do not operate as <u>co-operatives</u> but as <u>businesses</u> within the co-operative legal framework within which they happen to find themselves. It was also noted that many successful co-operative dairies are substantial buyers of milk from non-co-operative dairies.

In general, therefore, co-operatives and private dairy firms do not regard themselves as separate sectors of the industry and will co-operate freely where it is to their mutual advantage. As examples, one north German dairy visited for this study found it more economic to sell the milk collected in an outlying part of its 'area' direct to a private drying plant located in that area (a plant incidentally under Dutch management) rather than incur the expense of transport to its own factories; and co-operative dairies in Schleswig-Holstein make considerable use of the outlet provided by the Nestlé plant at Kappeln, which buys milk from dairies throughout the region on the basis of monthly price negotiations.

Attitudes to private dairies vary widely, suggesting a wide variation in their reputation and performance. In some instances, this is linked to their frequently family nature and paternalistic structure: they were often founded and built up by a successful entrepreneur, but subsequent generations of the family may lack the flair of the founder, causing the firm's reputation to suffer. In some regions, producers seemed quite prepared to offer milk to private dairies, assuming reasonable prices – although milk contracts differ little between those offered by such dairies and those offered by co-operatives, producers pay no share capital contributions. In other regions, however, some distrust of private dairies is evident and a strong co-operative spirit proclaimed. Communication between farmers is good and reputations, particularly poor ones, die hard.

Regional organization

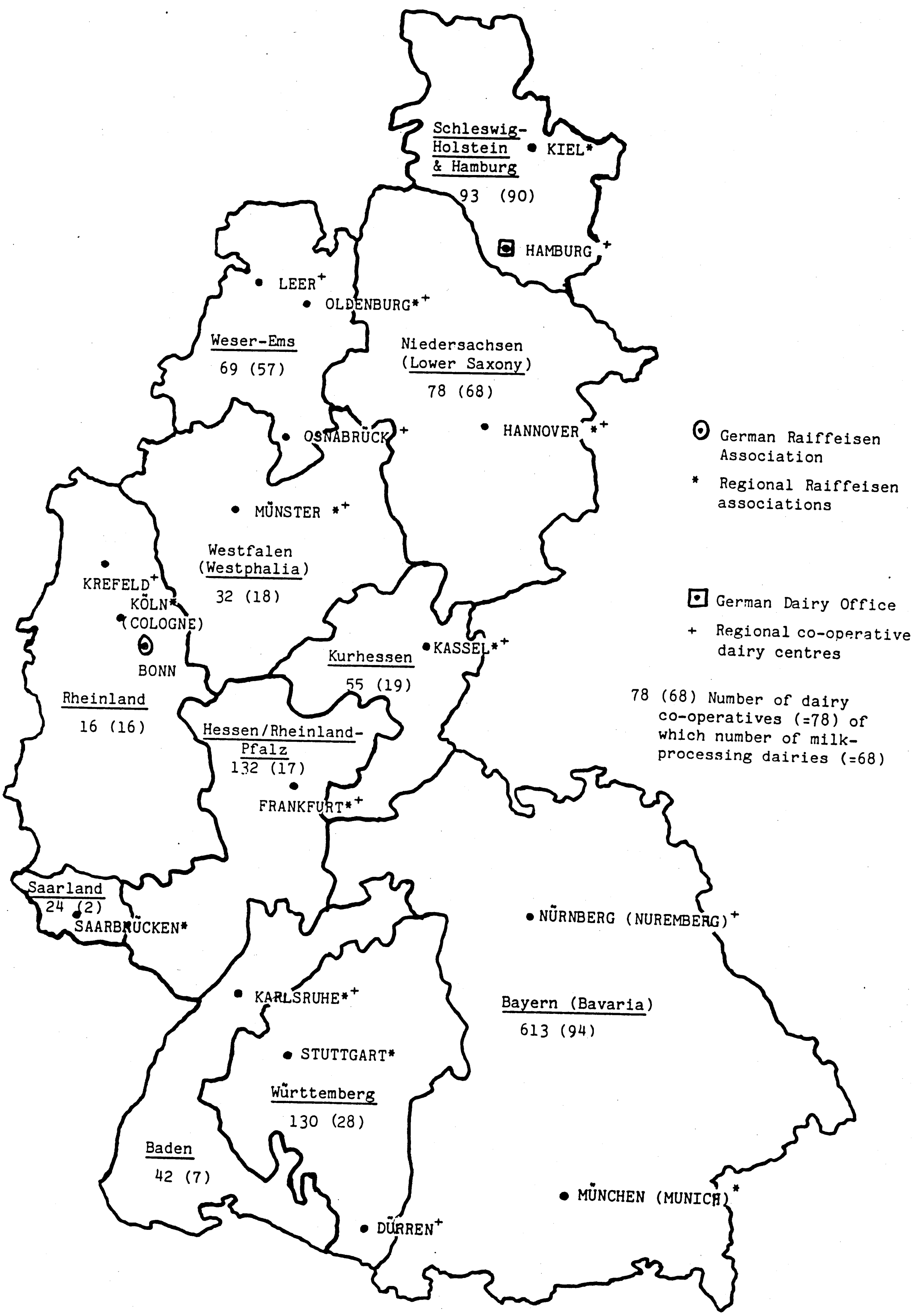
The German regions have developed somewhat differently from each other according to the varying organizational views of the regional Raiffeisen associations, the milk production and processing characteristics of each region, and no doubt numerous other factors. In general, south Germany still has large numbers of dairies involved in little more than milk collection, a feature not apparent in north and west Germany. Because of the differing regional organization, the 10 regional co-operative dairy centres fulfil differing roles, are involved in processing to differing extents, and are seen in differing lights by their member co-operatives. Figure 2.1 portrays the regional organization of the German co-operative dairy sector.

In Lower Saxony, of the 68 co-operative processing dairies five are second-tier dairy centres whose members are primary co-operative dairies. Hence, these dairy centres have taken over a considerable proportion of the processing and marketing functions of the region and the regional co-operative centre in Hanover restricts its activities largely to butter marketing. The arrangement also relieves the local-level dairies of surplus problems associated with seasonal fluctuations in milk deliveries, and allows them to plan their production programmes and capacity utilization in terms of the firm outlet available for their milk, thereby having a beneficial effect on their cost structures. The dairy centres process some 50 per cent of the milk delivered by producers to co-operative dairies in the region, and this notable feature has resulted in a channelling of activity which has permitted the co-operative dairy sector to meet the strong competitive pressures evident for a surplus-producing region. Investment aimed at reducing costs has been largely concentrated on the dairy centres whose future performance will determine the producer prices for milk paid by the local-level co-operatives.

In Westphalia, an attempt to form a limited partnership between the regional co-operative dairy centre in Münster and the regional centres in Leer, Osnabrück and Oldenburg across the border in the region of Weser-Ems recently fell through for lack of "successful co-operation". A more successful attempt has been made between the regional co-operative dairy centres in Frankfurt and Nuremberg: the resultant limited partnership between Hessen/Rheinland-Pfalz (a deficit region for milk) and Bavaria (a surplus region) makes strong economic sense and is the largest dairy sales organization in Germany.

Figure 2.1

The regional organization of the co-operative dairy sector in Germany



N.B. The boundaries of the Raiffeisen regions in the above map differ in some instances from the political and administrative boundaries used by Government bodies. The differences are particularly evident in central Germany.

This partnership also had its troubles, having originally wanted to include the regional centre in Karlsruhe, an attempt which also foundered upon lack of agreement between independent-minded organizations.

Bavaria is somewhat unusual in German dairying in that around 40 per cent of milk delivered to dairies in the region is handled and processed by non-co-operative dairies. The share of co-operatives in the markets for the various dairy products is consequently variable as shown in Table 2.13. Only 15 per cent of the total number of co-operative dairies are involved in milk-processing, but the number of those who are so involved (just over 90) is at present stable. In 1982 these processing dairies, two of which are registered as private limited companies (GmbH), took 86 per cent of the milk delivered to all Bavarian co-operative dairies.

Table 2.13

Share of co-operatives in dairy sales, Bavaria, 1982

Products	Co-operative dairies' share (%)
Liquid milk	66
of which: UHT milk	60
Buttermilk products	21
Soured milk products	30
Yoghurt (plain)	55
Flavoured milk products	21
of which: yoghurt (flavoured)	18
Cream products	67
Total fresh dairy products	51
Butter	64
Hard cheeses	69
Medium cheeses	46
Soft cheeses	38
Total above cheeses	64
Fresh cheese	31
Milk for feed	85
Cream and milk exports	68
Dried milk products	60
of which: skim-milk powder	64

Source: regional Raiffeisen association literature.

In addition to the regional co-operative dairy centre in Nuremberg, Bavaria has also attempted to centralize its skim-milk and whey disposal through BMI*. Developments in the market, notably demand from Italy, have caused dairies to bypass BMI for skim-milk; nevertheless, it remains the largest skim-milk powder and whey product producer in Bavaria and uses this position to stabilize prices.

Regional attempts to sharpen marketing of dairy produce through co-ordination and the use of regional descriptions is common. Hence, in Schleswig-Holstein the regional co-operative dairy centre in Hamburg is seeking to sell cheese specialities under the brand-name "Gut von Holstein", while the dairy centre in Nuremberg exports butter and cheese under the brand-name "Bayernland" and the dairy centre in Münster sells around half its member dairies' butter production under the "Wiesengold" and "Westfalenbutter" brand-names. If such ventures continue to be successful, this will intensify the trend towards more co-ordinated marketing of German dairy produce by the co-operative dairy sector on a regional basis, and towards greater concentration in the co-operative dairy sector as a whole.

Marketing link-ups at a lower level are also found where they are authorized by the cartel authorities. Eight north German dairies, not all registered as co-operatives, have entered a group contract (known as Hansano) to rationalize their acquisition of raw milk, its processing, marketing and sale and also to negotiate with commercial buyers. This is a concerted attempt to counter the increasing concentration on the buying side and to meet its demands for a broad range of dairy products of different price and quality standards. One of the members of this group is also a member of a further national grouping under which five dairies, again not exclusively co-operatives, market under the brand-name of Tiffany. Tiffany, which aims to match organizations such as Kraft and Danone, is said to utilize 10 per cent of all milk delivered to dairies in Germany and is clearly a major force in German milk

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* Bayerische Milchindustrie e.G.

marketing, enabling its member dairies to specialize according to their comparative advantage within the framework of a powerful sales organization. Both these groupings, while effectively cartels, have the blessing of the German cartel office, the first on the basis that it provides a necessary rationalisation in the face of the concentrated structure of the food industry, and the second on the basis of its products being specialities.

Pricing policy towards producers

The price paid by individual German dairy co-operatives for the raw milk of their producer-members is generally regarded as the main indicator of their success. It is their maximand and the measure by which individual co-operative managers register their performance in relation to their competitors. Having said this, however, dairies are unwilling to aggravate their competitors unnecessarily by paying excessively high prices. More than one of the dairy co-operatives visited for this study admitted to being able to pay higher prices than at present without endangering its long-term investment programme but saw little purpose in doing so as long as it was a front-runner in its locality. Despite the mergers of recent years, it appears to be bad form overtly to attract membership away from a neighbouring co-operative and co-operative managers generally agreed that wide divergence of price between dairies was not in anyone's interest.

The level of price which dairies are able to sustain is influenced by processing and handling costs, but is also the result of the value they are able to add to the raw product which is dependent on the maintenance of a reputation for quality and on the variety of products they are able to offer to a prosperous and discerning clientèle. Competitive ability is important internally in Germany as well as on the European and world markets.

The inter-dairy price competitiveness means that on a local-level prices tend to be partly determined with one eye on the competition. Although impossible to substantiate, the presumption is that informal agreements on price are on occasions reached between neighbouring dairies. Formally, prices tend to be fixed monthly after discussions among the Board of Management and the professional managers, having regard to internal costings prepared for the purpose, the market situation faced, the quantity of milk on offer by members and the level of profit it is sought to declare. This last factor is clearly highly adjustable since differences in milk prices between neighbouring dairies of more than two or three Pfennige per litre taken over a whole year cause rumblings of discontent among milk producers and, if persistent, lead to rumours of imminent mergers between co-operatives. Nevertheless, price differences can be quite substantial: in 1981, in Schleswig-Holstein the highest and lowest paying dairies differed by 5.1 Pf. per kg. and in Bavaria by 9.4 Pf. per kg. On a national level the difference between the averages for each region for milk of similar quality are given in Table 2.14. These differences, already apparent in the prices paid at the dairy and thus excluding collection cost differences, are largely the result of the different product markets exploited in the different regions.

Table 2.14

Average producer prices by region for milk of 3.7% fat content, 1980
(Pf./kg. excl. value added tax,
incl. any final settlement payments)

	Price at farm	Price at dairy
Schleswig-Holstein	58.55	60.14
Niedersachsen (Lower Saxony)	58.17	59.79
Nordrhein-Westfalen (North Rhine Westfalia)	57.82	59.88
Hessen	55.60	58.25
Rheinland-Pfalz	60.09	62.47
Baden-Württemberg	56.06	58.37
Bayern (Bavaria)	57.41	59.54
All Germany	57.61	59.63

Source: Raiffeisen, Kiel.

The seasonality of milk production, and hence of the price paid for milk, varies considerably as between north and south Germany. There are two contributory factors. In north Germany, calving is normally early in the year which, together with the favourable forage situation in late spring, causes a seasonality bulge. In south Germany, however, the wish to have cows dry in autumn in order that labour can be devoted to crop harvesting activities results in a preference for calving late in the year and consequently a more even seasonal milk production pattern. The ratio of winter to summer milk deliveries ranges from around 1 : 1.8 in the north to around 1 : 1.2 in parts of Bavaria; consequently, the monthly milk price paid by dairy co-operatives in Lower Saxony (1981) ranged from 55 Pf./kg in April to 63 Pf./kg in November, while prices paid in 1982 by two of the co-operatives visited for this study ranged between 59 Pf./kg in May to 68 Pf./kg in November (Rheinland) and between 61 Pf./kg in January to 66 Pf./kg in November (Bavaria), the latter's variation said to be largely in response to conditions in the cheese market.

The seasonality factor, where significant, can cause management problems at the dairy since mid-summer is a poor time for the marketing of liquid and fresh milk products due to holidays while demand can be particularly buoyant in October, especially in times of warm weather. Consequently, co-operative dairies often have surplus milk to dispose of in peak production periods and yet are seeking additional supplies in autumn. In this connection, the outlet of intervention is of vital importance in stabilizing markets and is particularly useful in spring and summer. The use of the intervention outlet by the larger individual dairies generally fluctuates substantially due to changing export possibilities. It is frequently said that many small dairies live exclusively (and handsomely) from intervention sales, although no such dairies were encountered during research for this study. It is the intervention outlet, which means that dairies always have a market, which produces the paradox often remarked upon in Germany, namely that in a milk-surplus country dairies compete heavily for milk.

Prices paid by dairies for milk appear to show only slight variation depending on the activities of the paying diaries. Table 2.15 shows an index of prices paid by different types of dairy co-operative in Schleswig-Holstein. Mixed product dairies are the best payers, which does not necessarily suggest an inbuilt advantage for this type but may rather be a reflection of the higher level of dynamism found among the management of such plants. The price differences are, however, small.

Table 2.15

Milk payments by dairy co-operatives in Schleswig-Holstein, 1980 and 1981
(Index of Pf./kg. at 3.7% fat content, at collection centre, excluding value added tax)

	1980	1981
Average all dairies	100	100
Liquid milk plants	99.45	99.23
Butter plants	99.86	99.90
Cheese plants	99.82	99.78
Mixed dairies	100.39	100.50

Source: Raiffeisen, Kiel.

Conflicting evidence was found concerning the relative prices paid by co-operative and non-co-operative dairies. While comparisons between individual co-operatives are difficult enough, as will be shown later in this chapter, the milk prices paid by co-operative and non-co-operative dairies are not strictly comparable due to the share capital contribution made by co-operative members upon which no interest is normally paid.

All dairies are now obliged to follow the provisions of an official decree on the payment for milk according to its quality*. Quality was

* The so-called Milchgüteverordnung - BGBl. 1 Nr. 36 of 12.7. 1980.

traditionally determined by fat content, but since July 1981 payment is also made according to protein level. Subsequently, bacteriological condition has become a factor and payment now incorporates all of these considerations. Milk is placed into one of four classes according to its bacteriological state. Payment is to be made according to weight rather than volume, and for individual producers should involve additions or deductions for any deviation in fat and protein content from the month's average for all milk deliveries to the dairy. The exact level of additions and deductions is to be based on the average net realisation for fat and protein during the previous year. Dairies then have to inform producers of the price paid for class 1 milk of a standard 3.7 per cent fat and 3.4 per cent protein level. Milk of inferior classes must be penalized by at least 2 Pf. per kg. for each class it is below class 1. Further penalties are laid down for deliveries of milk persistently of low bacteriological standard.

The aim is presumably to permit comparison between the prices paid by dairies for their raw milk. This knowledge is a crucial element in the competition between dairies for producers' custom. In practice, however, while the required figures for standard milk are a guide to outsiders, exact comparsions between dairies' prices are not possible for three reasons. Firstly, the monthly milk payments are not the only element in producers' receipts if they are members of co-operatives since they receive often substantial additional milk payments which are decided at the end of each year and which are not always included in published figures on standard prices. The subject of additional payments will be discussed more fully in the next chapter. Secondly, no uniquely correct method of determining the value of fat and protein content of milk exists: it is supposed to reflect the average values obtained in the previous year, but in practice the values of fat and protein are not easily separable within a range of dairy products. Thirdly, any true comparison between dairies from the producers' viewpoint should take into account the share capital contribution payable by members:

as will be shown later, the minimum obligatory capital contributions (upon which interest is not normally paid) vary substantially between individual dairy co-operatives. The relish with which the decree on milk payment is depicted as unworkable by many dairy managers suggests that it has been virtually sabotaged by individual dairies keen to preserve some degree of obfuscation in the pricing practices of themselves and their competitors.

The importance of price in relations between co-operative dairies and their producer-members and the competitive environment in which it is determined have led to frequent calls for some form of price regulation at a level related to a reasonable profit level for purposes of the long-term survival of the dairy industry in its present form. As will be shown later, individual dairies can keep their prices high in the short-term under pressure of competition but possibly to the long-term detriment of the dairy industry in their regions and of certain product areas. To some extent, of course, the concentration among dairy co-operatives and the resultant rationalization of the dairy processing industry in Germany will lead to price regulation by the Raiffeisen movement, as local competition is eliminated and producers lose any practical choice they might currently have as to where to deliver their milk. It was noted that the management of smaller co-operative dairies in particular were strongly against suggestions of price regulation. The successful ones among them live upon entrepreneurial flair, attempting to exceed the performance of their larger competitors who would be the beneficiaries of any price regulation. This would lead to further amalgamations, a price structure controlled from above, and a lack of manoeuvrability on the part of co-operative dairies in the face of changing market circumstances. The eventual result would be the total integration of the dairy sector along United Kingdom lines, with, as many in the German industry see it, associated rigidities and lack of domestic competitive pressure, and an estimated fall in the milk price to producers of perhaps 2 Pf. per kg.

Despite the competitiveness on price at the dairy level and despite the fact the German milk price is high in EEC terms, price increases have failed to keep pace overall with the EEC target price. The trend over the last decade is shown in Figure 2.2, and a widening gap is apparent with German prices some 3 per cent short of EEC target price in 1972 rising to a shortfall of almost 5 per cent in 1982. This is a cause of some concern to individual dairy co-operatives since their farmer-members often focus on the annual percentage rises in the EEC target price. The difficulty is increased for individual co-operative managers by the fact that EEC price fixing takes place well into the co-operatives' accounting year (almost always January to December). The true extent of the shortfall is often masked by dairies in their published figures by comparing EEC target prices at the dairy with their own prices at the farm and by comparing the EEC target price prevailing at the start of the year with their average price for the whole year. The gap between the two lines in Figure 2.2 is in reality wider than that shown – in 1982, a comparison of the average target price for the year of 67.28 Pf. per kg. with the German price payable at the dairy of around 59 Pf. per kg. would show a gap of some 12 per cent.

Failure to keep pace with the rising target price for milk is the result of the general European problem of rising production and stagnant demand for the product. Table 2.16 shows the result of this situation for one major German producing region, Weser-Ems. During a period of improvement at the farm level with falling producer numbers, rising cow numbers, rising average herd size, rising yields and a rising proportion of total milk produced which is delivered to dairies, market circumstances have not been conducive to yielding even a 3 per cent per annum average increase in the value of each tonne of milk sold, despite the efforts of the dairy sector in the fields of product development and rationalization at the processing level.

Figure 2.2

EEC target prices and German dairies' prices
for milk of 3.7% fat, 1972 to 1982

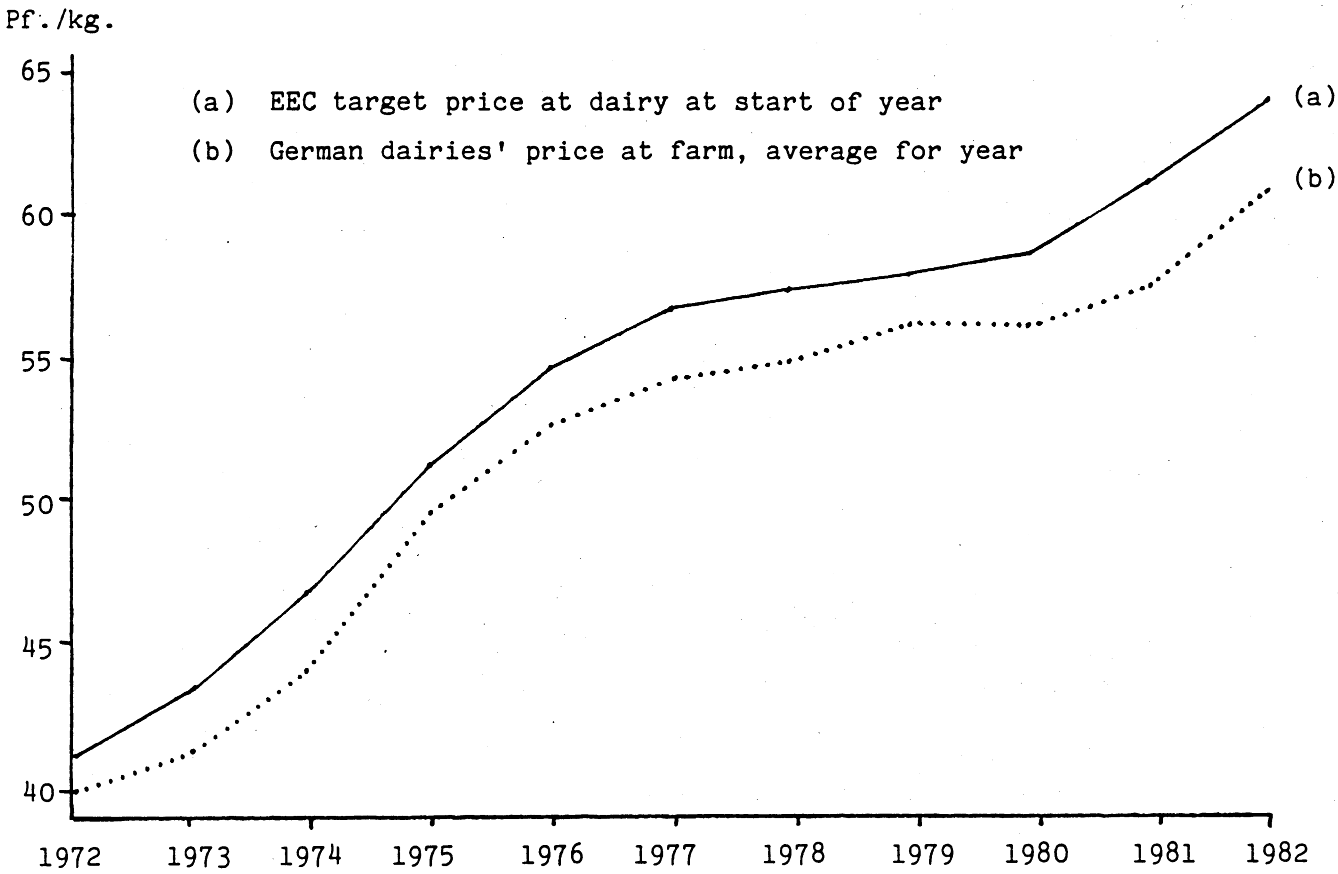

Table 2.16

Co-operative dairy developments in Weser-Ems, 1977-1982

	1977	1978	1979	1980	1981	1982
No. of dairies	67	66	61	60	58	57
Milk deliveries (mn. tonnes)	1.840	1.953	2.021	2.121	2.230	2.344
Value of milk and milk products sold (Pf./kg.)	70.65	71.84	73.43	74.07	76.68	81.06

Chapter Three

The legal framework of German agricultural co-operation

Development of the Co-operative Law

In the initial stages of the development of modern German co-operation no specific legal framework existed, and consequently co-operatives had difficulty in their relationships with outsiders. The development of the co-operative sector was thereby hampered. Schulze-Delitzsch succeeded in establishing specific co-operative laws in 1867 and 1868 to provide a degree of legal competence to co-operatives based on the unlimited liability of their members. Again under the influence of Schulze-Delitzsch, the more complete co-operative laws of 1889 and 1898* were formulated and these remain the legal basis for German co-operative activity today. These laws permitted the establishment of co-operatives with limited liability, they allowed the union of co-operatives to form co-operative centres, and they introduced the principle of compulsory auditing of co-operatives.

Subsequent amendments to the 1898 law included the provision (in 1922) that large co-operatives with over 3,000 members should replace their General Meeting (to which all members have access) with a Members' Representatives Meeting. Co-operatives with between 1500 and 3,000 members may also hold Members' Representatives Meetings, but those with fewer than 1,500 members must continue to hold General Meetings. In 1934 it became obligatory for co-operatives to belong to a co-operative auditing association - details of this requirement will be discussed later in this chapter. After the war it became clear that a major revision of the co-operative law was becoming necessary to reflect the swiftly changing

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* RG Bl.S. 55 of 1.5.1889 and RG Bl.IS. 810 of 20.5.1898

economic and social conditions, and in 1962 the German Federal Justice Ministry drafted a new law for consideration by the relevant circles. The draft received a negative reaction from the co-operative apex organizations, and the idea of a new codification of the law was dropped.

By 1970 the co-operatives themselves were pressing for reform of the law, largely from the viewpoint of seeking an improvement in the legal possibilities for the formation of own capital. It was, however, seen by the co-operative associations as too problematic to contemplate a total reform of the co-operative law which would then cover all the many and varied forms of co-operative which had evolved over the years. The result was the substantial amendment to the existing law which came into force on 1st January 1974*.

This 1974 Amendment, a partial reform of the law, was designed both to improve the possibilities for own capital formation and to ensure more democratic participation in the large co-operatives. The first of these areas of concern resulted from the fact that members had little incentive to contribute financially more than the minimum required to their co-operatives. The idealism once supposed to characterize their relationship to co-operation had given way to more pecuniary considerations, and a typical co-operative did not compare favourably with other savings and investment outlets available to members. This was since such a co-operative did not pay interest on shares, did not permit members to have any claim on its reserves and thereby participate in its economic growth, and did not issue shares which could be transferred or sold or which were reimburseable at other than their nominal value.

Improvements in the possibilities for own capital formation include raising the attractiveness of the co-operative as an investment vehicle for members. The 1974 Amendment sought to improve this attractiveness by giving co-operatives more freedom in the formulation of their statutes - for example, by allowing them to limit members' liability to the exent of their share capital (i.e. put them in the same position as company shareholders). The majority of co-operatives encountered for this study had not gone this far, but had limited members' liability to the level of share

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* BG Bl.IS. 1451 of 9.10.1973

capital plus an additional equal amount. Statutes may also provide that co-operative members adjudged particularly active in furthering their co-operative's interests may be given up to three votes at the General Meeting. 'Particularly active' may mean number of shares held, share in co-operative turnover, or size of member's business, but the multiple vote may not apply in the case of very important decisions, such as amendments to statutes. This represents an important departure from the basic 'one man, one vote' principle of co-operation, a departure which, among the dairy co-operatives examined for this study, has not been widely employed, largely because for existing co-operatives a change of statute would be necessary whereby the multiple vote would not apply and the majority of members not 'particularly active' would always carry the day. It was however employed by one co-operative centre, where 'particularly active' was defined in terms of shares held.

Further examples of the flexibility allowed in formulating a co-operative's statutes include the possibility of paying interest on shares. Again, this was not provided for in any of the dairy co-operatives examined for this study, since the management felt the membership to be astute enough to realise that any provision for interest would ultimately come out of funds available for distribution anyway. A co-operative's statutes may also provide for a five-year notice period for members leaving the co-operative, and hence a five-year grace period before the co-operative would have to repay share capital. This possibility has again not generally been utilized by dairy co-operatives because of the difficulty of getting the General Meeting to agree to the necessary change in statutes, and almost universally the notice period among primary dairy co-operatives is two years. In fact, it appears to be generally felt by co-operative members that the extension of the notice period to five years would be tantamount to giving a dairy co-operative a licence to pay poor prices. Among the (second tier) co-operative centres, however, five years is more usual*.

A co-operative's statutes may also stipulate the formation of participatory reserve funds, to which members have a claim, in contrast to the remaining reserve funds which are the property of the co-operative and under no circumstances available to members.

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* A five-year notice period is apparently common among Dutch dairy co-operatives.

This was intended to overcome the worries of many that participation in the 'inner worth' of their co-opreatives was not available to members, thus making the investment of funds in a co-operative less attractive than in a share company where the shareholder participates in the 'inner worth' of his company through the increased value of his shares. Such participatory reserves did not exist among the co-operatives examined for this study.

The second area of concern to the formulators of the 1974 Amendment, the level of democracy in the larger co-operatives, was tackled by a tightening up of the rules concerning Members' Representatives Meetings. Meetings of under 50 of these representatives are impermissible, and the members of the co-operative's management and supervisory boards have no vote. The representatives themselves must be elected directly by secret ballot and not serve for more than five years.

The 1974 Amendment, in its provisions regarding own capital formation and in its strengthening of the legal position of the management board which must manage the co-operative under its own responsibility, has made co-operatives and public limited companies more alike in a legal sense. Prior to the Amendment there existed a distinct tendency for firms registered as co-operatives to change into public limited companies*, whereas in recent years some pressure has existed for allowing public limited companies, private limited companies and registered associations to change into registered co-operatives, a change which under German law is not at present permitted. German co-operative business activity is regarded in essence as independent of legal form, and firms following the co-operative principle of furthering the economic interests of their members exist which are not registered as co-operatives+. The legal form taken by German companies run on co-operative lines is a matter of expediency rather than one of principle.

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* A tendency reinforced by the pre-1977 corporation tax legislation which discriminated against co-operatives by imposing a higher tax rate on their distributed profits than that applicable to other companies. The 1977 reform of the law placed co-operatives and non-co-operatives on an equal footing in this regard.

\+ Such firms are sometimes known as 'latent co-operatives'.

Registration as a co-operative under the current provisions of German commercial law is attractive to top management as a result of the strong position of a co-operative's management board. Since the board is made up of honorary rather than professional members, it is in practice able to delegate its strength to the co-operative's chief manager. Co-operative management boards are also less easily deposed than those of share companies. The attraction of the co-operative legal form lies also in the complex of requirements imposed upon share companies concerning financial disclosure, requirements which have cost implications and which can lead to detailed public scrutiny. For larger firms, the formation of a co-operative large enough to hold Members' Representatives Meetings, less onerous and more easily influenced by management than shareholders meetings since not every member is able to attend, would be attractive. In such co-operatives, individual members may have no influence in the formation of policy apart from having one vote at a five-yearly election of representatives.

Co-operative principles

The principles of German co-operation, as expounded by the Co-operative Law and interpreted by subsequent legal judgements and by commentators, may be summarized as follows. A co-operative is a form of association whose structure accords with democratic principles. Members, acting through majority decisions at the General Meeting, determine the basic direction taken by their co-operative. The multiple vote, however, represents a potential slight dilution of this democratic principle.

From the legal viewpoint, a co-operative is not viewed as a capitalist association along the lines of public or private limited companies (AG or GmbH), but as a union of legal persons with economic aims in which capital plays an ancillary rather than a leading role. Hence, a co-operative has no fixed capital stock of its own, but relies on the personal participation of co-operating members whose financial contributions result entirely from their membership. The extent to which dairy co-operatives build reserves and thus create capital resources beyond the reach of members will be examined later. In principle, however, the aim of a co-operative is not capital accumulation, but the furtherance of its members' economic interests through communal business activity. The members do not therefore only maintain the undertaking but are also its patrons.

Legally, co-operatives are required not to have a fixed number of members. This non-exclusivity and freedom of exit means that a co-operative's membership may fluctuate. A co-operative's statute can, however, stipulate upper and lower limits for membership numbers and can make membership dependent on conditions as long as these are not so restrictive as to completely exclude new members. In the dairy sector, geographical location puts a practical limit on membership in the absence of mergers between co-operatives.

In determining whether particular co-operatives or co-operative managers adhere to co-operative principles, a much-discussed provision of co-operative law is the requirement that a co-operative's aim must be the furtherance of its members' economic interests*. The authorities responsible for the registration of co-operatives do not have to check whether this aim is actually achieved in individual cases. It seems to be agreed that an indirect furtherance of members' interests is sufficient, and it is left to the individual co-operative to set objectives which will achieve the aim of furtherance. Such furtherance is achieved through increases in members' revenues or reduction in members' outgoings. It need not extend to all members, and it is the decision of members individually whether to take advantage of the facility offered. Strictly, a co-operative pursuing aims other than that of furthering its members' interests can be dissolved. Although member interests are paramount, a co-operative is not prevented from extending its activities to non-members.

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* The so-called Förderungsauftrag.

In sum, German co-operatives have been seen historically as associations of commercially-weak economic units seeking economies not available to them as individuals in order to better their economic circumstances. The advantages obtained from a co-operative by its members are therefore seen not as gains in the capitalist sense but as savings or economies. The annual surplus earned by a co-operative in its trading with members is, after the necessary retentions to satisfy the requirements of the law and of the co-operative's own statutes, merely the result of technical circumstances or or imprecision in the calculation of the year's costs and returns. Such a surplus is therefore reimbursable to members as a co-operative rebate.

Legal requirements in practice

The practical requirements imposed upon a German registered co-operative by the law are both of interest in themselves and are necessary background to the subsequent discussion of co-operative financing.

Co-operatives must have at least seven members* and, while the law prescribes no maximum number along the lines that a co-operative is by nature not an exclusive organization, a co-operative's statute may do so. This statute must also specify, inter alia, details of members' financial liability, details of shareholdings and how they must be paid, and details concerning the formation of legal reserves which are exclusively designed to cover any loss appearing on the balance sheet. No minimum legal reserve is specified, nor is any minimum level of own capital. The size of shares and details of their payment is also left to the individual co-operative's statute. This flexibility on the part of the law is more apparent than real, since each co-operative must belong to an auditing association which can be relied upon to test the appropriateness of its financial principles.

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* Public limited companies (AG) require five, private limited companies (GmbH) require only two.

The position with regard to members' financial liability may legally take three forms: unlimited, limited to an extent specified in the co-operative's statute, and limited to the amount of the share capital. With unlimited liability, members may also remain liable to satisfy creditors in the event of bankruptcy for up to eighteen months after leaving the co-operative; in practice, unlimited liability, although the only form recognized by the original 1867 Law, is now scarcely, if ever, to be found. Liability limited merely to the amount of share capital, possible since the 1974 Amendment, is particularly common among consumer co-operatives and wine-growers' co-operatives, and is also sometimes met with in the dairy sector. The most common form of members' financial liability is, however, that limited by the co-operatives' statutes, and derives from the 1889 Law. Prior to the 1974 Amendment, such limited liability, being related to shareholdings, would rise were nominal share values subsequently increased; since 1974, the additional liability over and above share capital may be fixed. It has not always been apparent without examining a co-operative's statute which form of member financial liability exists. This has been criticized as a problem for potential creditors, although whether small farmers could in any event be prevailed upon to fulfil their legal requirement over and above their shareholdings is a moot point. Today, however, a co-operative's accounts normally state the extent of members' liability.

The law provides for a co-operative to operate through a General Meeting (or Members' Representatives Meeting), a Supervisory Board, and a Management Board. This organization is similar to that of a German public limited company.

The General Meeting represents the highest authority and is responsible for making the basic decisions. Here members exercise their rights in the affairs of the co-operative and in its management. In practice, such principles have been severely diluted as the need for quick decisions in an increasingly sophisticated business environment, and the greater levels of specialist management expertise needed, have led to the delegation of management responsibilities to the Management

Board. This change of emphasis is recognized and authorized by the 1974 Amendment and has led to the General meetings being termed by some as the 'parliament' rather than the 'government' of the co-operatives. In cases where the General Meeting has been replaced by the Members' Representatives Meeting, the functions of the meeting are ostensibly the same. However, representatives, like Members of Parliament, are not formally accountable to the members who elected them and are not bound to act in ways specified by those members.

The General Meeting has the exclusive right to change the co-operative's statute. It must also endorse both the co-operative's annual balance sheet and decide upon the distribution of profit (or the covering of loss) - this is in contrast to the shareholders' meeting of a public company where the balance sheet does not have to be agreed. The General Meeting also chooses the members of the Management and Supervisory Boards, although in practice the choosing of the former is often delegated to the latter, and alone has the right to relieve members of these Boards of their office or to dissolve the Boards entirely. The General Meeting also determines the payment of members' shares where this is not laid down in the co-operative's statute, establishes the credit limits of debtors, and makes the decision concerning the merging of the co-operative with another or the dissolution of the co-operative. Such rights cannot be removed from the General Meeting by the co-operative's statute, which means that the Meeting is a significant part of a co-operative's organization even after the modifications of the 1974 Amendment. Members have considerably more authority than that possessed by the shareholders of companies.

The Supervisory Board of a co-operative must have at least three members. These must be members of the co-operative and not also on the Management Board. In the case of second-tier co-operative centres, where the membership consists of local-level co-operatives, Supervisory Board members need only be members of the primary co-operatives. The members of a Supervisory Board are elected at the General Meeting, and the necessary majority for their election is determined by the co-operative's statute. Dismissal from the Board, however, requires a three-quarters majority at the General Meeting.

The most important function of the Supervisory Board is the supervision of all aspects of the management of the co-operative. It must audit the annual balance sheet and inform the General Meeting of the result, and may at any time call upon the Management Board to submit reports or provide documents. However, no legal guidelines for this auditing activity are provided. The Supervisory Board must also be fully informed of the auditing of the co-operative by its audit association. It is the Supervisory Board which must bear ultimate responsibility vis-à-vis the membership for any conduct which might damage the co-operative.

The Management Board too must consist of members of the co-operative. The Board must have at least two members who again can only be dismissed by the General Meeting. The law provides that the Management Board may consist of honorary unpaid members. This seems general among agricultural co-operatives, since Board members must be co-operative members who in turn are practising farmers, and strengthens the personal aspect of the co-operative to the membership.

The 1974 Amendment caused a decisive change in the position of the Management Board. Is is no longer regarded as the executive organ of the General Meeting but has to manage the co-operative on its own responsibility. Hence, despite its composition, the Management Board has become similar in function to the board of a public limited company. The only limits to its authority are those contained in the co-operative's statute, although that statute might also provide that certain measures require the agreement of the Supervisory Board. In the majority of the dairy co-operatives visited for this study, the chief manager was a member of the Management Board and in view of his expertise, personality and experience was normally able to make a decisive contribution to the running of the co-operative. On occasions, the Board consisted exclusively of farmers whose general decisions were then carried out by the salaried management. In the case of some dairy co-operatives, mergers have caused the Management Board to become large and cumbersome since, in the interests of the relationship between co-operative and membership, the identity of the merger co-operatives could not be allowed to become submerged. In such cases, an 'inner circle' of the Management Board may largely determine policy.

As well as managing the co-operative, the Management Board represents the co-operative in its dealings with third parties. Such representation may be delegated by the co-operative's statute to one Board member or to a Board member together with a manager. Again, this provision of the 1974 Amendment represents an increasing similarity to public companies, possibly at variance with traditional co-operative principles.

Membership of auditing associations

German co-operatives are subject to the requirements of commercial law on orderly bookkeeping and the preparation of accounts according to general commercial norms. Such requirements are intended to protect the interests of creditors, to ensure self-critical financial analysis, and to permit the General Meeting to make an informed decision on the distribution of surpluses or the coverage of losses. Apart from the internal auditing carried out by the Supervisory Board, the maintenance of standards is ensured by the compulsory membership of an external auditing association, part of the co-operative association in each region.

The external audit is more stringent and comprehensive than the auditing requirements for non-co-operatives, having originally been designed to protect co-operative members inexperienced in business matters from management incompetence or exploitation. The audit involves continuous observation of the co-operatives' affairs and management, rather than a check on year-end positions as in the case of stock companies, and may involve surprise visits without advance warning. It contains, therefore, elements of both advice and regulation and is of great value as a protective mechanism for co-operative members and for any external creditors. The audit covers all aspects of a co-operative's management, aims to uncover any shortcomings, and is designed to oversee and if necessary to compel their correction. The ultimate sanction is expulsion from the auditing association, which effectively means the dissolution of the co-operative since membership of an association is required in order that a co-operative can be registered.

The auditing associations have existed on a voluntary basis since the middle of the nineteenth century, arising from the need of individual co-operatives for expert advice and control at a time when management was largely amateur. The 1889 Co-operative Law made auditing a compulsory requirement for co-operatives, and the 1934 amendment to the law introduced compulsory membership of an auditing association. These associations are regional and obtain their mandates from the authorities of the areas to which they belong. Their membership may, and often does, consist of firms not registered as co-operatives and in the dairy sector includes a number of private dairies as well as dairy co-operatives.

Audit associations are required to check the business situation, the asset position and the management of their co-operatives at least every other year, with the aim of establishing their commercial circumstances and the orderliness of the management. The check is required every year for co-operatives with balance sheets totalling over 1 million DM. Co-operative managements receive a detailed statement of the auditor's findings and recommendations. None of the co-operatives visited for this study was prepared to make such auditors' reports available to outsiders, and it was clear that such reports are studied in great detail and with much interest by the majority of co-operative managers, even if privately they sometimes find the external auditing procedure somewhat paternalistic and irksome since to some extent it involves intervention in the management.

The auditor's assessment of a co-operative's assets includes examination of the circumstances of an unsuccessful investment to determine whether it was the result of misfortune or of sheer bad management. Judgement of this nature would not be required of the auditor of a stock company. The auditing of a co-operative's share accounts entails the auditor seeking reasons for members leaving the co-operative. He may also judge the adequacy of a co-operative's activity by assessing the extent to which it can extend its membership in its region. The auditor may also attempt an assessment of a co-operative's success by such means as comparing its prices with those of its competitors, examining the extent to which members use the co-operative, and considering non-member trading.

A particularly important part of the external auditor's work is in the examination of a co-operative's finances. Reserve formation is a case in point. Since share capital may in principle be withdrawn at relatively short notice and is therefore not entirely suitable for financing long-term fixed assets, auditing associations are concerned that an adequate proportion of own capital should be held in the form of reserves. One dairy co-operative manager encountered had clearly had a stormy relationship with his auditing association, largely over this question of reserve formation. His uncompromising position was to cajole and persuade the Management Board, and hence the farmers, to support his policies against the auditor's recommended course of action. In fact, the main source of friction between co-operatives and auditors appears to be over the question of the declaration of profit which can then be used to fuel reserves. Not only is profit normally taxable, and thus unpopular with co-operative members, but also members naturally prefer surpluses to revert to them rather than to their co-operative's reserves.

Individual co-operatives' membership of their regional Associations is of crucial and unquantifiable importance. The audit associations provide a range of services, such as advice in legal and tax matters, exchange of experiences, education of personnel, the representation of members' interests to state bodies, and general advice on business problems. The link between co-operatives and their Associations is also of great direct practical significance. It is an open secret that the guarantee function vis-à-vis third parties of co-operative members' financial liability has effectively been transferred to the Associations, and this financial supportiveness within the co-operative movement is understood and respected by potential creditors. It also explains the fact that co-operative bankruptcies are extremely rare, as the co-operative movement as a whole has an image to maintain.

Co-operatives and Cartel Law*

Firms registered as co-operatives are by the fact of such registration not regarded as cartels even though they are unions of their members' businesses operating together for economic advantage. This results from the fact that the aims of co-operatives according to their statutes are not to influence market conditions by limiting competition. This does not, however, rule out the possibility that co-operatives may infringe cartel legislation by entering contracts or making decisions of an anti-competition nature.

The delivery contracts which dairy co-operatives make with their members are permitted by cartel law which actually makes special mention of such arrangements concerning agricultural producers. As long as they involve the production or sale of agricultural products or the use of agricultural installations for the storage or processing of such products, such contracts do not infringe cartel legislation. They must not, however, include price-fixing clauses. Cartel law makes similar provision for secondary agricultural unions, which therefore includes dairy co-operative centres and covers delivery contracts between them and their member co-operatives for products acquired locally. The cartel authorities, however, require to be immediately advised of such contracts in order that they can establish that competition has not been violated.

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* BGBl.IS. 1081 of 27.7.1957

Co-operatives and Tax Law *

A consideration of German dairy co-operatives from the viewpoint of taxation law is instructive since the attitude of the tax authorities towards co-operatives reveals an 'ideal' model of co-operation with which the present-day reality of German co-operation can be compared. In principle, German co-operatives are subject to the same taxation requirements with respect to all major and minor taxes and duties as any other taxpaying firms. However, exemption from corporation tax, trading tax and property tax+ may be obtained by some co-operatives in the agricultural° sphere, provided they restrict their activities appropriately. Such restriction covers the extent of the processing activities they may undertake, the limitation of their transactions to their membership, the limits to which they may use tax-free profits to form reserve capital, and the limits on their ability to participate other than minimally in other firms. Corporation tax exemption is available to agricultural co-operatives who restrict their business activity to:

- the use in common of agricultural equipment;
- the fulfilment of business contracts for the production of agricultural products for their members' businesses;
- the handling or processing of agricultural products arising from their members' activities, as long as the handling or processing can be regarded as being within the realm of agriculture;
- the provision of advice on the production or utilization of agricultural products from members' businesses.

Potential tax-exemption does not therefore apply to agricultural supply or requisite co-operatives, agricultural consumer co-operatives or agricultural co-operatives formed to supply water to their members.

For dairy co-operatives, tax-exemption requires that they restrict their handling and processing activities to milk produced by their own members, and that the activities themselves are appropriately agricultural and directly necessary for the furtherance of their members' interests. As soon as dairy co-operatives buy milk or additives beyond

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* A readable and comprehensive commentary may be found in Zülow et al. (1978)

\+ The relevant tax laws are: BGBl.IS. 2597 of 31.8.1976, BGBL.IS. 484 of 24.3.1977, BGBl.IS. 1586 of 16.8.1977. Since corporation tax is quantitatively the most important, and since exemption from trading and property taxes normally follows exemption from corporation tax, the remainder of this section concentrates on the co-operatives' position under corporation tax law.

o 'Agricultural' normally includes forestry in this connection.

certain limits from non-members, or their activities extend beyond the agricultural sphere, tax exemption is lost. These are generally seen as heavy restrictions which in practice, if adhered to, affect co-operatives' ability to compete.

In assessing the appropriateness of a co-operative's activities, their transactions may be divided into four distinct groups.

- 'Functional' or 'purposive' transactions directly fulfil the co-operative's objectives as laid down in its statute. In the case of dairy co-operatives, functional transactions will be the purchase of the raw milk and the activities necessary for its handling and processing. If a dairy co-operative buys skim milk from other dairies to make skim-milk powder, these will be functional transactions, but with non-members.
- 'Reciprocal' transactions are the counterpart to, and made necessary by, the functional transactions. They arise from the double-sided nature of a co-operative's business activity. In the case of dairy co-operatives, processed milk products will be sold in transactions reciprocal to the functional activity of buying milk from members. Reciprocal transactions are normally with non-members.
- 'Supportive' transactions are necessary for the fulfilment of functional and reciprocal transactions and thus arise indirectly but necessarily from the co-operative's objectives as laid down in its statute. In the case of dairy co-operatives, the provision of bulk tanks to members for storing and cooling their raw milk would be a supportive transaction.
- 'Subsidiary' or non-functional transactions are those outside the true concern of the co-operative and having no connection with the co-operative's statute. It is irrelevant whether such transactions are with members or not, since it is the type of activity in relation to the statute which is of concern. Hence, while a dairy co-operative's purchases of milk from non-members are not regarded as subsidiary transactions, activities such as the leasing-out of equipment, the making of loans to members, or the purchase of milk products from third parties for delivery to members might well be so regarded.

Restriction of its activities to functional transactions with members, and to the necessary reciprocal and supportive transactions, would render a co-operative exempt from corporation tax. The performance of subsidiary transactions leads to loss of tax-free status. It has been estimated that the share of tax-exempt dairy co-operatives in total milk deliveries to co-operative dairies in Germany in 1980 was 20 to 25 per cent

(Neitzke, 1981a) - not a negligible figure in view of the limitation to their activities and the degree of caution which they are obliged to exercise to ensure that their activities are so limited. One way of maintaining tax exemption is by membership of a second-tier co-operative centre. Over half the member co-operatives of one such centre visited for this study were tax-exempt, suggesting both a rudimentary level of activity on their part and also a need for the co-operative centre with little option except to sell much of their milk to it.

Problems of interpretation are legion, and some of those encountered in the dairy sector are briefly described below. Co-operative dairies often purchase milk from farmers' associations. These are commonly registered as partnerships under civil law*, do not therefore have legal personality, and therefore cannot themselves become co-operative members. Since functional transactions with members are required if a co-operative is to remain tax-exempt, all the members of the farmers' association must individually be members of the dairy co-operative for this to apply. Where an association member dies and his farm's milk deliveries continue during the ensuing prolonged legal wrangles over the inheritance of his property, the dairy co-operative may find itself inadvertently buying milk from a non-member and thereby jeopardizing its tax-exempt status.

Supportive transactions are often difficult to define. On occasions, the tax authorities have regarded the sale by a co-operative of superfluous installations and materials as a supportive transaction; also interpreted as such was the sale by a dairy co-operative of some pasture land in order to finance new plant. Nevertheless the uncertainty of how borderline transaction will be interpreted by the authorities is a source of some worry to tax-exempt dairy co-operatives since the identification of a single subsidiary transaction may lead to complete

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* Such a partnership is registered as a Gesellschaft des bürgerlichen Rechts (GbR)

loss of tax-exemption, not just to loss of exemption for the earnings from the subsidiary transaction itself*. Cases which have in the past been interpreted as subsidiary transactions include the granting of short-term loans by co-operatives to mop up temporarily surplus funds which would otherwise be held in unremunerative forms; and the granting of loans by dairy co-operatives to transporters for the acquisition of lorries and equipment which the dairies felt was in their long-term business interests.

The purpose of the legislation on tax-exemption is to make an agricultural co-operative, i.e. an amalgamation of small agricultural businesses, capable of competing with large agricultural business organizations. Tax-exemption requires that agricultural co-operatives only have as members the proprietors of agricultural businesses or individuals who have retired as such, and that members making use of co-operative facilities should be the proprietors of agricultural businesses. Tax-exempt dairy co-operatives in practice carry out continuous vetting of their membership to ensure that changes of farm ownership or management do not inadvertently result in non-member trading.

Apart from the type of activity in relation to its objectives as laid down in its statute, a co-operative's tax status depends upon the appropriately agricultural nature of its activity. If it is to remain tax-exempt, the involvement of an agricultural co-operative in 'industrial-type' activities is impermissible. Such involvement would mean full tax liability, even on that part of profits arising from activities which are connected with agriculture. For a

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* This applies even if the subsidiary transaction is not performed for profit. One dairy co-operative is said to have violated its tax-exempt status by performing free money-transfer services for members.

processing co-operative, such as a dairy, the principle determining whether or not an activity is 'agricultural' is that it should be an accessory to the activities of members. Thus, a member's products would have to be processed in the way in which the member himself would have processed them if he had not been compelled by his modest economic circumstances and in the interests of easing the burden of his work-load to join co-operatively with other farmers. Again, there exists latitude for interpretation according to individual circumstances and even local practices. It is particularly important in the dairy field since increasing specialization and use of technology is rapid and leading to innovation in product assortments and packaging methods. At present, the storage of cheese for ripening purposes is considered suitably agricultural not to prejudice tax-exemption, whereas liquification processes applied to cheese and the production of condensed milk are not so considered. The principle has obvious implications for the use of additives in milk processing. There are also implications for selling methods, since if other products are sold alongside or in assortments with dairy produce, an 'industrial' orientation may be presumed which will endanger tax-free status.

Such 'industrial' orientation does not appear to be construed from the engagement of staff with business qualifications, from size of business or from the use of technical innovation. Hence, the tax-exempt co-operatives examined for this study were in no sense lacking in technical or managerial dynamism, although their activity was largely restricted to the market for perishable dairy products. In fact, the purpose of co-operative activity is to make possible an improved processing capacity over and above that which individual members could achieve alone, and part of a co-operative's function is to bring to small producers the benefits of the progressive methods employed by large firms.

Limits are also imposed on participation by tax-exempt co-operatives in other firms which are not tax-exempt. Participation in another co-operative, in a registered association or in a share company is limited to 4 per cent of the votes and 10 per cent of the paid-up shares or of the nominal capital. Participation in other tax-exempt firms is not limited.

The principle of granting tax advantages, while independent of a co-operative's size or its financial means, has had implications for the accumulation of capital in the form of reserves. Reserves are largely formed out of profits and profits can be declared by tax-exempt co-operatives without fear of their being eaten into by taxation. This aspect should, however, not be exaggerated since the number of tax-exempt dairy co-operatives in Germany is relatively small. Nevertheless for small co-operatives on a path of expansion tax advantages must be significant in the early stages of development, even if they are considered too restrictive at a later stage. Reserve formation will be discussed in detail in later chapters, but it is interesting to note at this point that the tax authorities have had some misgivings about tax-exemption where co-operatives have used it to amass reserve capital for long-term investment purposes. Tax privileges are granted with the intention of making small producers' co-operatives competitive with larger concerns and not of giving them a competitive advantage. Over-enthusiastic reserve accumulation is thus seen as being against the spirit of such an intention. It is preferred that co-operatives wishing to expand should do so by broadening their capital base by attracting additional members' capital contributions and by borrowing on a commercially prudent scale. 'Excessive' reserves amassed from tax-free surpluses may lead to loss of tax-free status: what constitutes 'excess' will be discussed later.

As already indicated, this discussion of the possibilities allowed under German law for co-operatives to exempt themselves from taxation is interesting not so much for its total effect on the financial strength of the co-operative dairy sector (the majority of dairy co-operatives, and all the large ones, do not follow the tax-exemption path which is perceived to be unduly stultifying to their commercial ambitions), but for the light which it throws on the 'ideal' functions of co-operatives. Of particular interest in this context are the guidelines of Corporation Tax Law on the processes which dairy co-operatives may undertake if they wish to maintain tax-exemption. Such processes may only make very limited use of additives, such as salt, casein, and small quantities of cocoa, malt, fruit, coffee etc. They include:

- the 'adjustment' of natural milk to whatever fat content is required
- the production of UHT milk
- the protein- and vitamin-enrichment of milk
- the production of milk drinks of which the milk or milk-product content is at least 75 per cent
- the production of soured milk, yoghurt and cream cheese - bought-in milk powder must not exceed 3 per cent of total milk content
- the production of butter and cheeses (hard, soft and fresh unmatured)
- the manufacture of processed cheese from the cheese rejects of the co-operative itself, such as the scraps from when moulds are filled
- the use of vacuum vaporization processes to make whey and skim milk
- the production and vitamin-enrichment of skim milk or skim-milk powder with up to 33 per cent bought-in additives, including those needed for de-naturing
- the production of whey and whey powder
- the production of cream and buttermilk.

The tax law guidelines also permit a dairy co-operative to contract out the production of milk products provided that the processing falls within the agricultural sphere and observes the rule on the use of additives. The products resulting from such contracts may then be packed and marketed without any indication as to the existence of the contracts. While such contracts are common within the dairy co-operative sector, they do not often involve tax-exempt co-operatives. This is because of the difficulties they would face in ensuring that such contracted processing only involved milk obtained from their members.

Under the guidelines, processes which are not deemed to be within the realm of agriculture and which would therefore not be permitted in tax-exempt dairy co-operatives, include:

- the manufacture of milk-based desserts
- condensed milk production
- sterilized milk production
- the production of powdered milk (other than skim-milk powder)
- the production of kefir (a soured milk from whey)

- the production of milk-based medicaments
- the manufacture of ice-cream
- the marketing of cream in aerosol cans.

In principle, second-tier co-operative dairy centres in Germany, whose members are the local-level co-operatives, may remain tax-exempt along the lines of the primary co-operatives. For this, all their member co-operatives would have to fulfill the necessary requirements for tax-exemption, and the co-operative centres would only be able to handle products emanating from those member co-operatives. Such co-operative centres are thus in effect officially regarded as the co-operatives of the producer-members of the participating co-operatives, albeit once removed. In practice, it is hardly surprising that co-operative dairy centres have no such tax advantages.

It is also theoretically possible for a tax-paying co-operative to restrict its activities and become tax-exempt. However, the co-operative would have to revalue its assets at their value to the business (i.e. the value a purchaser of the business would pay for each item on the understanding that he would then continue the business), and thus declare for tax purposes all the hidden reserves amassed by reducing profits during the period for which the co-operative was taxed. In practice, this results in little likelihood of tax-exemption being claimed by a hitherto tax-paying co-operative.

Co-operative rebates

In general, it is contended by those in the dairy co-operative sector in Germany that the law confers no privileges, fiscal or otherwise, on dairy co-operatives. Those dairies enjoying tax exemption are regarded as a minor subsector of the industry whose days are numbered by the considerable restrictions imposed upon them. The majority of dairy co-operatives are tax-payers on the same basis as any other companies. Corporation tax is levied on retained profits at 56 per cent, with a reduced rate of 36 per cent on any dividends paid to members.

The view that dairy co-operatives have no advantages over other dairy firms is complicated by the payments made at the end of each year by dairies for milk in addition to the regular monthly milk payments. These additional payments may either be a constituent part of the milk price or they may take the form of co-operative rebates.

The first method of making additional milk payments is available to all dairies, both co-operative and non-co-operative. It allows dairies to specify in their milk buying contracts that only provisional prices will be set monthly and that the management will determine the final milk price at the end of the year when the full results of the year's cost levels and market returns are known. The monthly provisional pricing is then bound to be followed by additional payments which have a degree of automaticity and are regarded as part of the milk price. They are a means of making the annual milk price up to an acceptable level and as such must be paid in the year to which they relate. If, however, that lead to 'unusually high' milk prices being paid, they may be regarded by the tax authorities as disguised profit distribution upon which the dairy concerned would have a tax liability*.

Co-operative dairies may have the option of making additional milk payments in the form of co-operative rebates+. Co-operative rebates are not part of the milk price, but are derived from trading surplus and are paid in the form of bonuses to members as part of the co-operative's furtherance of their interests. They are measured and paid out to members according to the extent of members' business transactions with the co-operative and are paid from surpluses arrived at through the co-operative's member trading. Co-operative rebates are a feature unique and peculiar to co-operatives. They are not regarded as payments out of profits but represent a tax-deductible expense which is incurred before profit is calculated. As such, they do not have to be

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* The whole question of disguised distribution is fraught with problems and has not been satisfactorily resolved between tax authorities and co-operatives.

+ This would not be possible for dairy co-operatives buying milk from both members and non-members since surpluses from transactions with non-members are not available for distribution as rebates to members and payments which lead to a financial advantage for members over non-members might be construed as a disguised profit distribution. A similar construction would be placed on payments to members arising from surpluses on subsidiary (non-functional) transactions.

decided by the General Meeting as in the case of profit distribution but are under the control of the co-operative's management. Those outside the co-operative sector who argue that the rebate system gives advantages to co-operatives over other businesses compare such payments to dividends distributed to company shareholders which are taxed at source at 36 per cent corporation tax.

The authorities' reasons for treating co-operative rebates differently lie in the view that whereas share companies may follow any objectives they wish, co-operatives are tied to particular specified aims - namely, the furtherance of their members' economic interests through the pursuit of business activity in common. A co-operative's economic rationale is therefore to secure savings or economies for the (small) businesses of its members, and any surpluses arising from the pursuit of the common business activity represent those savings rather than profits.

Co-operative rebates must be 'paid' to members in the sense of being made freely available to them. This does not exclude their being used by the co-operative to build up members' share accounts, and hence being effectively retained in the business since members are thereby released from an obligation to pay into those accounts. They should also be paid within 12 months of the end of the year to which they apply, and dairy co-operatives freely use this period of interest-free credit when making additional milk payments in the form of co-operative rebates. Rebates may also be left in member loan accounts provided that the members concerned can be persuaded to sign annual loan contracts - this does not appear to be common among dairy co-operatives. It is also possible for rebates to be set against members' debts to the co-operative - for instance, when the co-operative's statute requires mmebers to purchase additional shares.

The benefits to dairy co-operatives of the rebate system have two aspects. Firstly, the facility to pay for milk partly in the form of co-operative rebates allows co-operatives to withold the funds for considerable period even where the funds are not effectively being permanently retained in the business. Secondly, rebates may be used as a fine-tuning device to reduce to a minimum the profit declared on a co-operative's balance sheet. The advantage of this derives not least from the psychology involved, as members are led to believe that they are deriving some advantage from their co-operative dairy which would not be available from a non-co-operative dairy wishing to declare a reasonable level of profit.

Chapter Four

Sources of finance for German dairy co-operatives

Financing policy

The main financing problem of German dairy co-operatives is their increasing need for long-term capital for investment purposes necessary to maintain competitiveness in an increasingly concentrated sector. The current pressures on dairies are the need to maintain and take advantage of technical progress, and the need to maintain relative efficiency in the face of concentration and competition in the German food industry. Both these pressures are leading to expansion of activity and broadening of market orientation, with the resultant substitution of capital for labour, concentration on goods of relatively high added value, penetration of more distant and varied markets, and expansion into non-member trading - all making for continually increasing capital requirements.

The aim of co-operative dairies is to secure the long-term fulfilment of their task of furthering the economic interests of their members. Their environment is competitive, and the competition is sharpening, requiring increasing concentration in the dairy sector in order that individual dairies may achieve the organizational, production and financing advantages of the large firm. The increasing integration on the demand side, with its implicit cost advantages, has to be matched.

The Raiffeisen organization as a body recognizes that dairy co-operatives must compete in the market place with other firms. Its overlordship of the co-operative sector has not been passive and has led to a controlled rationalisation through merger of dairy co-operatives and the creation of an industry structure well able to hold its own in prevailing economic conditions. The process may be described either as effective rationalization or the strengthening of a virtual monopoly, depending on one's point of view. Those who adhere to the latter viewpoint suggest that dairy producers' choice is restricted by the organized carving-up of regions between co-operatives under general Raiffeisen supervision which has led to Thünenesque supply zone patterns developing around a limited number of large dairies.

The double nature of dairy co-operatives is frequently alluded to, whereby they are both associations of individual producers as well as economic agents in their own right. This has implications for financing policy. On the one hand, a co-operative is a union of producers, not of their capital contributions as is the case with a stock company, and the producers may in principle join and leave at will. On the other hand, producers join largely for the business advantages which membership will bring, with implications for the economic stance which the co-operative must take. These two aspects may be inconsistent in that the optimal size from a membership viewpoint may not be optimal from the point of view of business operation. In all cases, however, a co-operative must provide its membership with the advantages of a large firm while keeping its management accessible (and probably personally known) to members. The reconciliation of these two goals *vis-à-vis* the membership is to a large extent achieved in some regions by vertical integration, where the second-tier co-operative centres further members' interests on a higher plane than the primary local dairy co-operatives.

Strict adherence to traditional co-operative principles is uniformly seen in the German dairy sector as unsuitable in the current economic environment. A co-operative's future is determined by performance alone and appropriate adjustment to economic conditions; for this reason, entrepreneurial skills are pronounced among the management of successful dairy co-operatives, and the consequence is differing priorities and attitudes to financing and financial policy.

Types of finance

Along with procurement of goods and raw materials, with production, handling and processing, and with marketing and sales, financing belongs among the leading functions of a firm. Although closely bound up with the remaining areas of a firm's activity, financing has its own unique difficulties which require a particular competence on the part of the management. Financing tends to be seen today less as a mere technique for the provision of capital in a balance-sheet sense, and more as a decision-orientated concept which seeks to optimize the relationship between capital procurement and capital usage in terms of the aims of the firm. In this chapter, however, concern is largely with the sources of capital for German co-operative dairies; a balance-sheet approach is therefore considered appropriate.

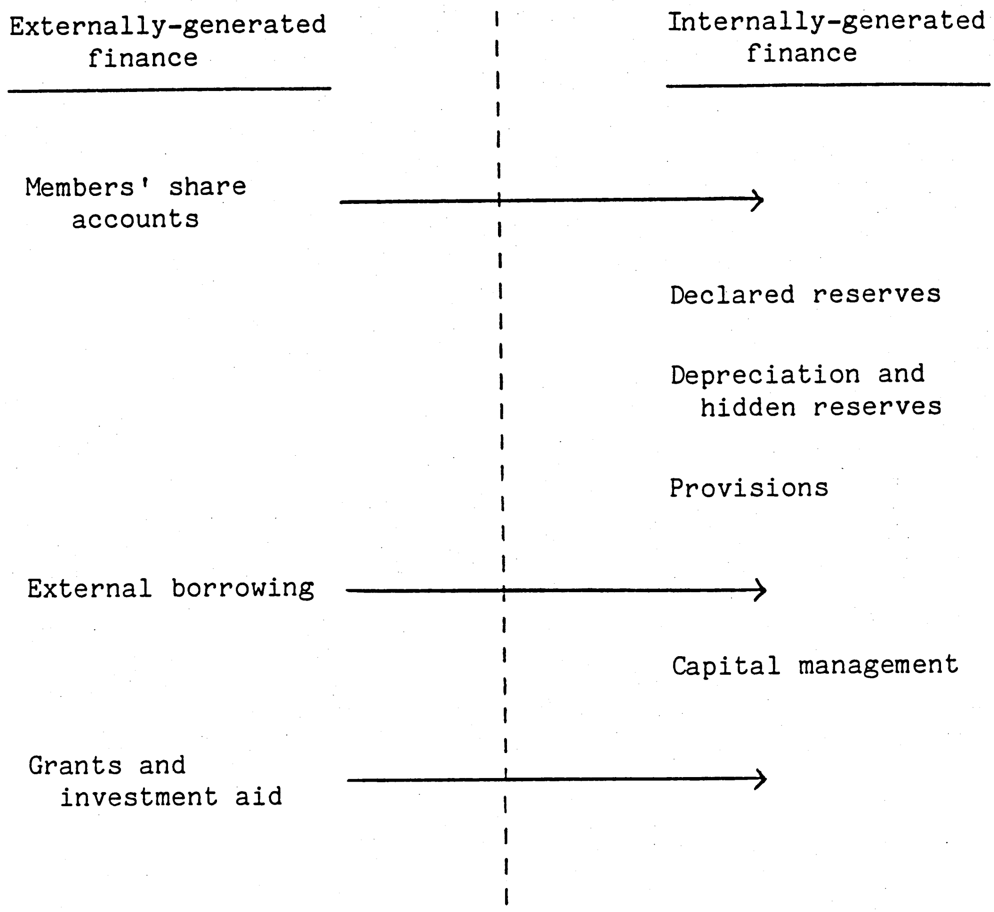
Under this approach, consideration is given to inflows, outflows and transformation of either concrete (i.e. assets) or abstract (i.e. liabilities) capital. Capital inflows and outflows manifest themselves in changes in the own capital or borrowed capital positions on the liabilities side of the balance-sheet, and are represented as changes in the financial or material property on the assets side. The investment and disinvestment resulting from the business process itself also requires consideration.

For the present purpose, finance is best characterized by its source - i.e. whether it is internally or externally generated. Figure 4.1 depicits the finance sources available to German dairy co-operatives; these will be discussed in turn in this chapter and quantified for the dairies analysed for this study in Chapter 5.

Internally-generated capital is the result of self-financing out of earnings and is represented in balance-sheet terms in the formation of declared reserves and of provisions for forseen future eventualities, largely pensions. Depreciation of assets also provides the means for continuous investment and may lead to the creation of hidden reserves. Capital management subsumes a variety of management activities which free resources for investment.

Figure 4.1

Finance sources for German dairy co-operatives



<u>Externally-generated capital</u> includes the share accounts of the co-operative's members. These represent funds ceded to the co-operative for the duration of membership and are not repayable during that time nor for some time afterwards. This part of the own capital resources of a co-operative is distinguished from own capital in the form of reserves by the fact that the latter is the property of the co-operative but not of the members. External borrowings include bank loans, trade credit and amounts owing to the co-operative's milk suppliers.

Members' share capital

The financial aspect of co-operative membership often tends to be played down in the literature where the idea of the co-operative as a union of persons is stressed. However, in any discussion of German dairy co-operatives, which are unions of small businesses as much as of individuals, members' share capital requires some emphasis as a fairly important source of funds. Although the contribution of capital is not a precondition of membership of a co-operative and therefore not a precondition for assuming the rights and duties of membership (in contrast to shareholdings in other forms of company), it is a necessary corollary of membership, and the actual capital contribution of individual members is an important base figure for determining the distribution of a co-operative's profit in the same way as for a share company.

The members' share capital contributions become in effect the property of the co-operative and are not again available to the members as long as they remain members. In this sense they are long-term funds available to the co-operative as an independent legal entity for whatever purposes it wishes and are not different from the share capital available to a non-co-operative company.

The capital contribution of the members of local-level German dairy co-operatives is normally related to the quantity of milk they deliver to the co-operative. Formerly, it was often related to the number of dairy cows they maintained, but rising yields and an increasing proportion of milk produced being delivered to dairies has almost universally led to the use of milk delivery as the base. Table 4.1 gives details of member shareholdings for six co-operatives studied whose requirements differed from each other. Standardization of the value of nominal shareholdings (column 3) shows a variation between a requirement of 309 DM. per 5000 lt. of milk delivered to 500 DM., equivalent to a range of about 4000 to 6500 DM. for the average-sized German producer. Standardization of the amount of obligatory initial payment required (last column) shows a much wider variation, equivalent to a range of about 400 to 6500 DM. for the average producer. These widely-differing requirements are a function of two things. The first is a different emphasis placed on the value of this form of financing by different co-operatives - this is partly associated with their tax status, since tax-exempt dairy co-operatives

Table 4.1

Details of members' shareholdings for a selection of local-level German dairy co-operatives

Value of share (DM)	Basis of share (quantity of milk delivered)	Value of shareholding per 5000 lt. (DM)	Maximum shareholding per member: number	value (DM)	Obligatory initial payment per share (DM)	Obligatory initial payment per 5000 lt. (DM)
60	1,000 kg.	309	–	–	10	31
100	*	449+	800	80,000	100	449
100	1,000 lt.	500	–	–	100	500
300	4,000 kg.	386	500	150,000	30	39
400	4,000 kg.	515	150	60,000	200	257
500	5,000 lt.	500	150	75,000	50	50

1 lt. = 1.02969 kg.

* According to a gradated scale, ranging from 1 share per 1200 lt. (up to a total of 50,000 lt. per annum) to 1 share per 2500 lt. (over a total of 125,000 lt. per annum).

\+ For an 'average' producer (65,000 lt. per annum).

Source: author's research

are more concerned to declare profits for use in building up their reserves. The second reason is the level of local competition - where dairy producers have little choice but to sell to their local co-operative and the co-operative structure in the region has been rationalized, obligatory initial share account payments are likely to be high, whereas in areas such as Bavaria, where a large number of dairy co-operatives still exist and where competition from private dairies is considerable, obligatory initial payments to share accounts will be relatively low.

In the case of second-tier co-operative centres, the capital contribution for a member co-operative may be related either to the amount of milk it receives from its own membership, or to the amount of milk and milk products it delivers to the co-operative centre, or a combination of both. One regional co-operative centre visited for this study also charged members an additional levy, the amount decided quarterly by the Supervisory Board up to a maximum per kg. of milk delivered laid down in its statute. Such levies are put to reserves and are stated to be towards "covering the costs of the co-operative and for purposes of stabilizing prices".

Since the 1974 co-operative law amendment the facility has existed for interest to be paid on share accounts. However, as already indicated, this facility does not appear to be used by dairy co-operatives.

Joining fees may have to be paid by new members of a co-operative. Their justification is that new members benefit immediately from an organization whose strength derives from the financial sacrifices of past and existing members. Such fees go directly to the co-operative's own reserves.* Among the local-level dairies investigated, joining fees were not common: their usual extent was DM. 50 per share, although in one case the precise level was determined <u>ad hoc</u> by the Management Board.

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* In Holland, leaving fees are also charged and are reputed to be on occasions higher than the share capital repayable; in Germany, no legal basis exists for such fees.

A distinction has to be drawn between the full amount of shares and the paid-up share accounts of members. The former represents the full extent of members' potential participation, and thus compares with the share capital of a share company, while the latter represents their effective participation. In some cases, the difference is substantial and represents, on paper, considerable growth potential for this form of co-operative financing; but since capital contribution is not a precondition of co-operative membership, co-operatives cannot insist and cannot indeed expect that share accounts be immediately paid up unless this is specifically provided for in the co-operative's statute. Frequently, as shown in Table 4.1, obligatory initial payments to capital accounts may be relatively low, and it is left to the General Meeting to decide upon the rate of subsequent contributions.

Share accounts not fully paid up are normally built up gradually from dividends and from a proportion of the additional milk payments made at the end of each year. Some local-level dairy co-operatives also withhold a small proportion of members' monthly milk money (typically 1 Pf./kg.) for this purpose, and one second-tier co-operative centre visited also withheld 0.5 Pf./kg. from its member co-operatives until their share accounts were fully paid up. Generally, dividends from profits are credited in full to share accounts not fully paid up, while 50 per cent of the additional milk payments tend to be so withheld. Such procedures are frequently specified in co-operatives' statutes.

Share accounts are normally repayable to members leaving the co-operative at two years' notice from the end of the year in which notice is given. The 1974 Amendment made it possible to give notice for part of a shareholding only. Hence, although share capital as a source of co-operative funding is regarded as variable* as members leave and join the co-operative, a variability arising in part from the fact that membership is not transferable although shares are, this finance is secure for at least two years even in the extreme case of

* This variability is relative to the position facing a share company where any shareholder 'leaving' the company does so independently of the company and without any effect on its capital endowment. In practice, it is apparent that share account levels among dairy co-operatives are fairly stable in normal circumstances.

a mass exodus by the membership. In the case of second-tier co-operative dairy centres (whose members are other dairies rather than milk producers), the notice period for repayment of share capital is invariably five years, a period of notice legally open to all co-operatives.

Financing through share capital has its limitations for dairy co-operatives for various reasons. The potential membership of a co-operative is limited by its geographical spread, and can only be increased by the 'poaching' of another co-operative's membership or by merger with neighbouring dairies. In many regions of Germany the fact that the number of members is declining as farm structure improves is counterbalanced by the expansion in the size of dairy herds and hence in the capital contributions required of the members who remain. This is complicated by the fact that share accounts are normally not fully paid up and any proposals for alteration of the obligatory payment requirements are not likely to find favour with the General Meeting and thereby lead to a change in the co-operative's statutes. In some areas of the country, notably in Kurhessen, dairy cow numbers themselves are declining and are leading to actual or anticipated declines in deliveries of milk to dairies.

For individual producers capital requirements can be fairly substantial, and it is nowadays becoming noticeable that where a member dies leaving shares which are well paid-up, his heirs will not take over his shares directly but will give notice, obtain repayment of the share capital and subsequently rejoin the co-operative by making the minimum payment requirement laid down in the co-operative's statute. In this way, the share capital available to the co-operative can fluctuate even where membership numbers remain unchanged. The shareholding burden on larger co-operative members may be eased by the introduction of a graduated scale for share capital requirements, whereby larger producers effectively obtain a 'discount' since the capital requirement per 1000 litres of milk delivered declines as the quantity of milk rises.*

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* The footnote to Table 4.1 gives details of one such gradated system encountered.

Co-operatives also have difficulties in raising the face-value of their shares. These have to be at a level to suit the marginal co-operator if membership numbers are not to be threatened, and in any event the raising of nominal share capital will only slowly be translated into a raised aggregate capital contribution. As the 1974 Amendment to the co-operative law foresaw, there are substantial limitations to the attractiveness of shares from the point of view of potential contributors. These include the one-man-one-vote principle, still fully applicable in the majority of dairy co-operatives and certainly applicable in all co-operatives for major decisions; the inaccessibility of the co-operative's reserves to the membership; and the additional liability in the case of bankruptcy, a liability which may extend for a period beyond the time of actual membership of the co-operative.

In sum, financing through share capital, while often substantial, is a form of financing which quickly reaches its practical limit. As a co-operative grows, paid-up share capital is likely to decline as a proportion of its total resources, and compared with present-day capital requirements member capital is of relatively limited importance. Share capital is, however, an important part of a co-operative's long-term own capital, and, particularly in the early stages of growth, the building-up of such longer-term capital is vital to the strengthening of a co-operative's capital base. An advantage of a co-operative's share capital over that of a non-co-operative firm is the stable value of each share which cannot diminish like that of public companies in times of poor performance or depressed stock markets. This to some extent offsets the variability induced by membership fluctuations.

The law provides individual co-operatives with considerable freedom to lay down the precise details of member financing in their statutes. No legal minimum nominal share capital level is required, in contrast to other forms of registered company*, nor is there any legal maximum limit for this form of financing. The total capital contribution required of a member is in fact an indication by the co-operative of the extent to which that member may participate and

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* A private limited company (GmbH) requires a minimum of 20,000 DM., a public limited company (AG) requires 100,000 DM., a credit institution requires 1 million DM., and a private mortgage bank requires 8 million DM.

will tend to be pitched at a level to suit the circumstances of members rather than the capital requirements of the business. The co-operative cannot expect that all its capital requirements will ever be provided by its members, since the underlying purpose of forming a co-operative is to bring together small producers whose need for such a self-help organization derives from their own inability to raise significant amounts of capital. This effective limitation of any member's potential capital contribution to the size of his productive base (i.e. number of dairy cows) or to the extent of his participation in the co-operative (i.e. quantity of milk delivered) ensures that such capital contributions do not have a speculative element as with the capital investment in a share company. Rather, a co-operative member's capital contribution binds him in a personal way to his co-operative since it is relatively long-term and unremunerative yet is connected to his participation and enables him to exercise some influence on the co-operative's activities.

Co-operative statutes normally provide for members' share accounts to be debited with amounts necessary to cover any balance sheet losses. Thus, even though share accounts cannot be debited to the extent that they show negative balances, a member's liability in respect of a loss-making co-operative may be higher in the short-term at least, than anticipated, although as long as the co-operative is not wound up the paid-up share capital is the full extent of a member's liability. If a member leaves a loss-making co-operative, however, he can be liable for additional amounts just as in the case of the bankruptcy of the co-operative even though the co-operative remains in existence.

The position of members upon the dissolution of their co-operative, while largely theoretical, is potentially important. Normally, by joining a co-operative, a member accepts a further degree of limited liability in case of bankruptcy: the statutes of both local-level dairy co-operatives and second-tier co-operative centres most frequently fix such additional liability at an amount equal to share capital requirements. In the event of bankruptcy, therefore, members of a limited liability co-operative dairy (other forms of co-operative dairy scarcely exist) would normally be liable for an amount of double their nominal (not their paid-up) share capital. In such an event this represents a substantial potential source of additional capital for the co-operative which could in theory be called upon. Even in the case of a profitable dairy co-operative, where the existence of additional member liability does not provide financial means directly, such potential is often quoted as a significant factor when outside credit is sought, a factor not applicable in the case of non-co-operatives.

Again, however, additional liability is a variable source of potential finance since it fluctuates with changing membership. It can also be said to have two negative effects: firstly, on willingness of potential members to join the co-operative, particularly since the additional liability may persist for up to eighteen months after a member has left; and secondly, on the co-operative management's willingness to build up the co-operative's own reserve capital in the knowledge that a potential source of additional funds is available if circumstances require. In practice, it seems highly unlikely that the co-operative movement as a whole would ever allow additional member liability to be invoked. The movement maintains a collective fund to assist co-operatives in trouble: while co-operatives have no formal legal rights to assistance from the fund, which is operated voluntarily, the close control exercised over them through the co-operative auditing system ensures their eligibility. According to the Raiffeisen association in Bavaria, no milk producer in the region has ever lost his paid-up share capital as a result of his co-operative getting into difficulties, let alone had his additional liability invoked. The co-operative fund is effectively collective own capital which performs the guarantee function for the movement as a whole efficiently and without fuss, such that the additional liability of co-operative members is only of theoretical interest.

The question of the extent to which co-operative members should provide capital (in the form of paid-up share accounts) or be liable to provide capital in case of need (in the form of additional liability) goes back to the early days of modern German co-operation. Schulze-Delitzsch insisted on the provision of a laid-down minimum capital amount, while Raiffeisen considered this unnecessary in the light of members' unlimited liability which he saw as an adequate safeguard against which long-term capital could be borrowed. Raiffeisen's view was that unlimited solidary liability on the part of members was an essential ingredient of member participation in co-operatives even to the extent of claims being made on members' personal resources in the event of a co-operative's failure. Schulze-Delitzsch, while not opposed to this view, regarded an immediate capital contribution by each member as necessary to establish a direct interest on the part of members in their co-operative. As a result, the formation of a co-operative's own reserves was of greater importance to Raiffeisen than to Schulze-Delitzsch who saw reserve capital as playing second fiddle to share capital. The present-day position among dairy co-operatives, influenced by tax legislation and by increased capital needs, lies between these two views: limited liability for members, but normally a liability in excess of share capital, and the need for a substantial reserve independent of the membership with its claims and fluctuations.

If a co-operative is dissolved and yet has assets to distribute after all creditors have been satisfied, it is usual among dairy co-operatives to stipulate that members be reimbursed as far as possible their paid-up share accounts. Any remaining distribution would then be made on a per capita basis as being the only practical method. Strictly, however, this is unfair on former members, since reserves have been formed by withholding profits which could have been distributed to members, and on non-members trading with the co-operative, since part of the reserves was presumably the result of surpluses on non-member trading.

Declared reserves

A crucial and controversial source of finance for German dairy co-operatives is that part of their earnings declared as profits and transferred to reserves. To the purist, a co-operative surplus only arises because pricing has been cautious in order to make provision for risk; at the year-end such risk no longer exists with the result that surpluses are owed to members. Hence, any undistributed surpluses are an indication that cost-covering principles have been violated with the result that the co-operative in question is not performing its legal function. It follows that, strictly speaking, self-financing out of surpluses is impossible.

In reality, such surpluses are frequently not only derived from trading with members. The non-member part of a co-operative's business may be seen as yielding legitimate profits, although co-operative dairies are more likely to be engaged in it in order to make full use of existing processing capacity. The surplus derived from non-member trading cannot in any case revert to members in the form of co-operative rebates* although it can be argued that members who have provided interest-free risk capital are justified in receiving bonuses at the expense of non-members.

In practice, of course, the distribution of profits to members is preceded by considerations of security, expansion and progress which are considered necessary if co-operatives are to fulfil their legal requirements in the long-term. To meet such considerations, reserves are built up out of profits, giving rise to the objections that funds are being appropriated by co-operatives from their membership, that co-operative managers are concerned to distance their co-operatives from their membership, and that co-operatives become independent of and unaccountable to their membership.

This clash between theory and practice, between idealism and pragmatism, is not a difficulty for co-operative managers on the ground. They argue that co-operatives are subject to the same risks as other firms, that an 'appropriate' level of profit for the purpose of reserve formation is vital if co-operatives are to succeed in business, and that such success is necessary for the good of the membership and therefore does not represent a conflict of interest between co-operatives and their membership. Despite occasional agonizing by the honorary (farmer) members of dairy co-operative Management Boards, such arguments, forcefully put by professional chief managers, invariably carry the day in successful dairy co-operatives and are a common feature of co-operatives' annual reports.

Considerable legal freedom exists for co-operatives to build up reserves from profits and consequently reserves policy is an important financing instrument for dairy co-operatives. Among German dairy co-operatives, declared reserves are of three types: legal reserves, operational reserves and participatory reserves. Transfers to reserves are regulated by the co-operative law and by the statutes of individual co-operatives.

No provision exists in co-operative law to limit the size of the legal reserves built up by co-operatives nor to specify the rate at

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* See last section of Chapter 3.

which they should be accumulated*. Each co-operative's statute, however, must detail the accumulation policy. Table 4.2 gives details for a selection of co-operatives with differing policies. The rate at which annual profit is to be transferred to legal reserve varies between 10 and 50 per cent of profit until the legal reserve achieves a specified level related to balance sheet total, share capital, or both. In practice, however, few dairy co-operatives seem to have built up their reserve positions to this level. The purpose of the legal reserve is to cover any balance sheet losses.

Operational reserves may also be specified in a co-operative's statute, and again details met with are given in Table 4.2. The proportions transferred are often lower than for legal reserves and in some cases the precise details of transfers to such reserves are left to the General Meeting. Operational reserves are also fed from sources other than profit, principally from members' joining fees (if they exist), from fines levied on members who break the co-operative's rules (e.g. on milk delivery requirements), and from any unclaimed share accounts (the requirement that share accounts of members leaving a co-operative be repaid expires after two years if left unclaimed). Unlike the legally-specified purpose of the legal reserve, the operational reserve is available for uses other than the covering of balance sheet losses, with such uses to be decided jointly by the Management and Supervisory Boards.

The third type of declared reserve - the participatory reserve - has been a possibility since the 1974 Amendment to the co-operative law. Designed to make investment in a co-operative more attractive, since departing members have a claim on this reserve in proportion to their shareholdings, such reserves do not appear to have been created by dairy co-operatives. Their unpopularity is hardly surprising in existing co-operatives: such reserves would have to be built up from surpluses which means that members would have to forgo immediate and direct gains in favour of creating a reserve to be drawn on by those members leaving the co-operative - not an attractive proposition for committed co-operative members. From the co-operative's viewpoint, too,

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* In the case of public limited companies (AG), the legal requirement is that 5 per cent of annual surplus is to be transferred to legal reserve until this amounts to at least 10 per cent of the company's basic capital.

Table 4.2

Reserve formation policies of a selection of German dairy co-operatives

	% of annual profit to be transferred to legal reserves	desired level of legal reserves	% of annual profit to be transferred to other reserves	desired level of other reserves
<u>local-level co-operatives</u>				
1.	50	40% of B/S	25	--
2.	10	20% of B/S; 50% of S/C	10	20% of B/S; 50% of S/C
3.	10	10% of B/S	10	10% of B/S
4.	20	20% of B/S; 100% of S/C	20	20% of B/S; 100% of S/C
5.	--	20% of B/S*	--	*
6.	10	10% of B/S	10	--
7.	50	40% of B/S	10	--
<u>co-operative centres</u>				
1.	50	40% of B/S	25	--
2.	25	20% of B/S	25	20% of B/S; 100% of S/C
3.	25	20% of B/S; 100% of S/C	25	20% of B/S; 100% of S/C

B/S = balance sheet total

S/C = nominal value of share capital

* All reserves to be 20% of B/S in total

<u>Source</u>: author's research

participatory reserves do not offer long-term capital but are seen as variable in the same sense as share accounts and are even regarded as a backdoor method by which members may get their hands on a co-operative's hitherto inviolable reserves. The resultant uncertainty is seen by some as weakening rather than strengthening the capital base of co-operatives, particularly in view of the role of own capital in providing guarantees to potential creditors. Members may even be given an incentive to leave the co-operative in order to 'take their profit' and thus create a potential uncontrollable haemorrhage for the co-operative. This would also introduce a potentially speculative element into members' participation in co-operatives, a capitalist feature supposedly foreign to the co-operative ideal.

Reserves, unlike share capital accounts, are seen by co-operatives as the stable portion of their own capital. The legal freedom allowed in the formation of such reserves permits co-operative managers to tailor the construction of their co-operatives' financial base to the circumstances of their aims and activities. Reserve formation is vital to co-operatives since it represents the creation of long-term capital without any repayment obligation. However, for most dairy co-operatives, the current tax situation makes it an expensive method of financing: surpluses retained by the co-operative rather than paid out to the membership in the form of bonuses are taxable at 56 per cent. As a result, tax-exempt co-operatives have an attitude to reserve formation which is quite different to those paying taxes: the declaration of profits in order to be able to divert a good proportion of them to reserves makes sense and reserve formation can consequently be relatively substantial. In the case of the majority of tax-paying dairy co-operatives, declaration of any more than a nominal profit figure is often resisted by managers and members alike with the result that formation of declared reserves can be a slow process. This resistance, largely due to unwillingness to see resources dissipated in taxation, derives also from the view that while payment of corporation tax means a transfer out of the agricultural sector, payment of dividends may not have this result, particularly as many small farmers are below the income tax threshold anyway.

Consequently, surpluses tend to be retained by being paid to members as dividends taxable at a lower rate of 36 per cent, which in practice normally means being transferred to members' share accounts; by being paid out as additional milk payments, which again means that they normally revert, at least in part, to members' share accounts; or by being used to finance maximum depreciation and thus creating hidden reserves.

In 1977, the Corporation Tax Law was amended to remove a double taxation element in dividend payments which had hitherto discriminated against co-operatives. In the amendment, the rate of corporation tax on retained earnings was raised to the current 56 per cent as compared with a rate of 36 per cent on distributed earnings. The result has been to make the build-up of capital through shares more attractive than self-financing through the use of earnings in the formation of reserves, since dividends paid out are used as a means of topping up share accounts which are not fully paid up. The topping-up of share accounts in this way, thereby relieving members of the requirement to do so directly, is not difficult for co-operatives to justify to their members. The use of dividend payments to create new shares, on the other hand, requires that members be won over to the idea, and this may cause more problems.

Hidden reserves and asset depreciation

The formation and extent of hidden reserves is not visible from balance sheets. Estimates of the magnitude of such reserves in the case of the dairy co-operatives visited for this study could, however, often be made with the assistance of the managers involved. One method is to compare the balance sheet values of fixed assets with the fixed asset values declared on the co-operative's property tax returns: where this could be done, estimates revealed hidden reserves ranging from 25 per cent of the balance sheet value of fixed assets to as high as 175 per cent. When it is considered that valuations for property tax purposes are also likely to be on the conservative side, it can be appreciated that hidden reserves are often very substantial, particularly for co-operatives benefitting from special rates of depreciation applicable along the East German border.

Hidden reserves are formed by:

- undervaluation of assets - the application of depreciation rates higher than the rate at which assets are in reality depreciating, or the deliberate undervaluation of stocks and of items in the process of manufacture will lead to asset values which are 'too low';
- non-valuation of assets - German accounting practice allows the write-off in the first year of minor items valued at less than 800 DM ;
- lack of asset revaluation - again, the principle of caution in German accounting practice does not as a rule permit valuation increases beyond their original acquisition or production cost;
- overvaluation of liabilities - principally 'too high' a valuation of provisions.

Hidden reserves arise, therefore, either from following commercial practice and its principles of caution and discretion in valuation, or from taking advantage of helpful legal provisions in the application of depreciation rates. In either case, the result is to reduce the amount of surplus declared in the profit and loss account and thus remove the funds in question from the influence of the decision-making General Meeting.

The question of valuation and depreciation principles in German accounting are obviously vital and require some consideration. Commercial law specifies (partly to protect creditors) that valuations should be prudent, and this is taken in practice to mean that assets are to be valued conservatively, with unrealised gains ignored, and liabilities generously, with unrealised losses taken into account. Liabilities which are reasonably certain to arise or losses which are likely to be incurred are normally represented as provisions whose formation is not taxable. Provisions for superannuation schemes of employees are particularly important quantitatively, and provisions for trading debts receivable are also common. The ignoring of unrealised asset gains means that in no circumstances do valuations of assets for balance sheet purposes exceed their acquisition or production cost, which is particularly significant in the case of land. Acquisition/production cost includes any installation charges but must exclude discounts and any grants from the State.

The principle of depreciation in German commercial practice is one of spreading the acquisition or production cost of an asset over its normal working life. It is also used, however, to provide accounting benefit in directions where this is thought desirable. The inclusion of a scrap value is optional. The usual depreciation methods are the linear (straight-line) and the reducing-balance methods. Linear depreciation rates for buildings erected in 1965 or later are 3.5 per cent for the first twelve years, 2 per cent for the next twenty years, and 1 per cent for the final eighteen years on acquisition cost. The option of reducing-balance depreciation or a combination of the two methods is available for moveable capital items (such as machines, tools, installations such as refrigerating plant, security items, vending machines, lifts, loading bays and fire prevention equipment), and annually up to 2.5 times the linear depreciation or 25 per cent of the book value of such items with a normal working life of up to ten years is deductible.* Straight-line depreciation may be accompanied by additional depreciation for extraordinary circumstances which may be technical (e.g. extra usage due to shift-work, physical damage) or economic (e.g. new inventions, changes in fashion, changes in the characteristics of raw materials).

Transference from reducing-balance to linear depreciation methods during the life of an asset is permissible, although the reverse is not. Depreciation for extraordinary circumstances in addition to the normal linear depreciation is only permitted if sufficient operating profit is declared: thus it may be used to reduce a profit but not to create or to increase an operating loss.

Some special depreciation provisions are available. Minor items of moveable capital which are useable on their own account rather than as part of a larger installation and whose acquisition or production cost did not exceed 800 DM. may be fully written off in their first year.

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* These rates are in the process of being raised to 3 times the linear rate or 30 per cent.

Quantitatively, this can amount to a significant figure where a large number of minor investments are treated appropriately. Capital items deemed to contribute to the protection of the environment and which were acquired between 1975 and 1980 also benefit from higher depreciation rates, namely 60 per cent in the year of acquisition and 10 per cent in subsequent years. Such items include those preventing damage or pollution by waste-discharge or noise-emission. Of great importance, too, are the high depreciation rates permissible to companies in an 80 km. band adjacent to the East German border to compensate them for their one-sided areas of activity: machinery and vehicles may be depreciated at 50 per cent per annum and even buildings at 30 per cent, providing a rich source of financial strength to firms able to generate sufficient surpluses to take full advantage of the provisions.

Adherence to such valuation and depreciation principles may lead to the creation of hidden reserves. Normally, such reserves are 'declared' when the assets whose undervaluation gave rise to them are sold, since the co-operative's surplus is increased to the extent that the price realised for the assets exceeds their book value. Under German tax law*, however, tax liability on such 'declared' hidden reserves can often be avoided by setting the surplus against the acquisition or production cost of certain other assets. As a result, hidden reserves realised upon the sale of land, buildings, plant and equipment with at least 25 years of life, shares in companies and certain agricultural equipment are frequently not subject to corporation tax if the items in question have belonged to the co-operative for at least six years and the realised reserves are re-invested in the same year in similar newly-acquired assets. In the case of dairy co-operatives, the provision is particularly useful where investment in land and buildings is concerned - investment in buildings includes extending and refurbishing existing buildings. If the reinvestment of the hidden reserves does not take place during the year of their declaration, co-operatives may operate a rollover provision and transfer the funds in question to a reserve. This reserve may then be debited to finance appropriate new investment during the following two years; only then do any unused funds have to be declared as taxable surplus. It is clear that the use of paragraph 6b among dairy co-operatives is substantial and is an engine of expansion, since the sale of an under-

* Para. 6b of the Income Tax Law.

valued asset results in swift reinvestment in a higher value asset in order to avoid a taxation liability.

While the valuation and depreciation provisions applicable to German co-operatives are substantially the same as those applicable to other forms of business, the co-operatives are in a better position to take full advantage of them. Except where surpluses are needed for the purpose of reserve formation, co-operatives are not concerned to show significant operating profits. Such profits are both against the spirit of co-operation which aims to pass benefits directly to members within the framework of its business transactions, and against financial logic since over half of declared profit would be dissipated in taxes and less wasteful means of passing benefits on to members and of retaining funds for investment purposes are available. In consequence, successful dairy co-operatives are able to take full advantage of their ability to build up hidden reserves, and this is a significant source of their financial strength.

Although hidden reserves are quantitatively important to German dairy co-operatives and provide an important cushion in poor years since they can be drawn upon to cover losses or drops in profits in a way invisible to outsiders, they have important drawbacks for financial management. When most required they may not exist in sufficient quantity, particularly after a string of poor years. They can only be built up where sufficient profit has been generated over a period of time, and by their nature they may be indefinite in size and somewhat transient. The rules of valuation, particularly those relating to the non-declaration of unrealized gains as manifested by the ceiling imposed on valuation by the cost of acquisition or production, may make them difficult to 'declare' simply through accounting procedures and thus may render them mobilisable only through the sale of the undervalued assets. Such mobilisation would mean that the hidden reserves become visible at a time when their invisibility may be an important asset. The realization of their full value through sale may also be uncertain in an emergency. Nevertheless, it is an important maxim that the higher the hidden reserves, the safer the declared reserves.

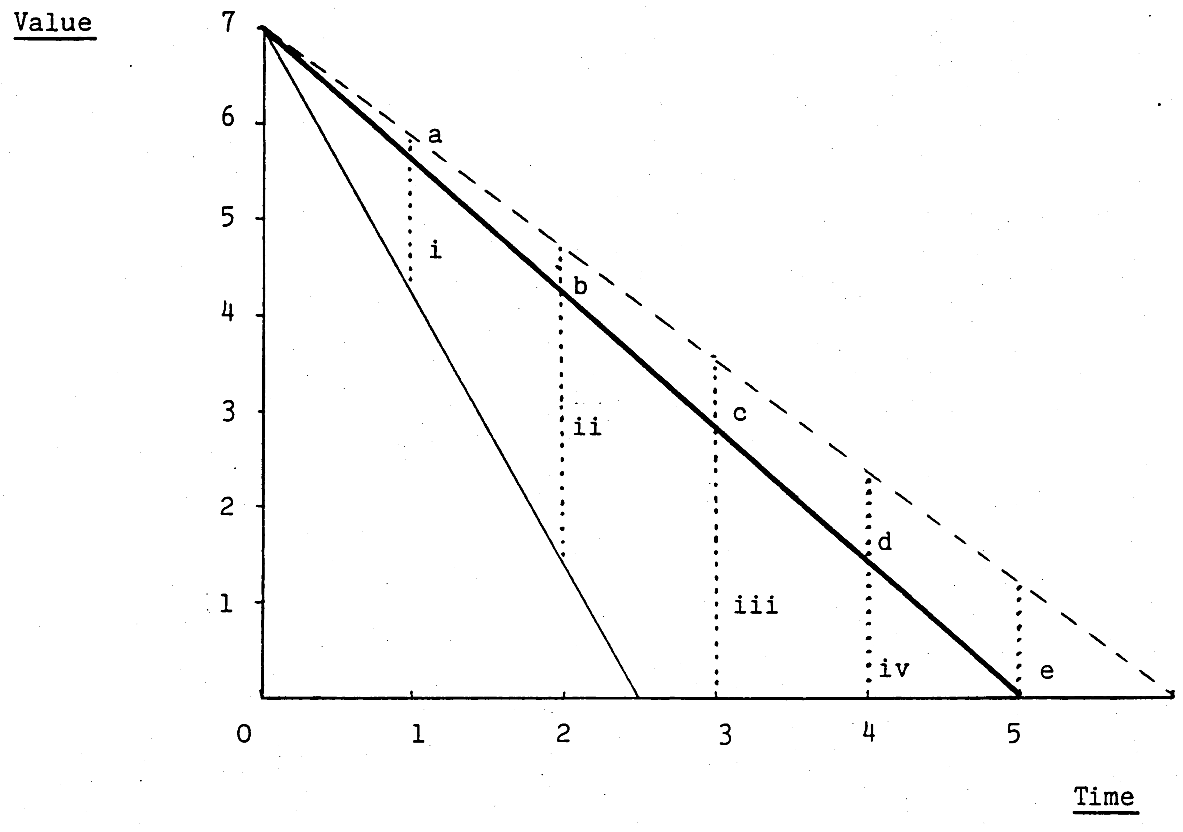
For the co-operative itself, the length of time over which a concealed reserve is available is clearly important. Such reserves may, once created, range from the virtually permanent as in the case of assets which do not depreciate through usage such as land or participation in other co-operatives, to the very short-term, as in the case of materials used in the production process. The formation of hidden reserves requires the assessment of present benefits as against future costs. Except for the paragraph 6b facility, they are a means of postponing the declaration of profit until a future date rather than of avoiding that profit declaration entirely. In effect, the profit is 'borrowed' by the business. Hidden reserves thus play a vital role in the case of co-operatives lacking the resources or the presence to enter the capital markets. Such a means of financing is cost-effective, both in the formation and the eventual use of hidden reserves; it involves no repayment obligation nor the provision of security to outsiders; it increases the financial strength of the co-operative should outside borrowing be undertaken; it permits a co-operative to make a progressive and steady increase to its own capital, assuming sufficient profits are generated; and it allows financial advantages to accrue from the postponement of tax-liability on profits.

The use of the hidden reserve method of financing can, however, be seen as detrimental to the interests of the membership of a co-operative. In principle, unscrupulous or incompetent managers could use this facility to mask the true level of profitability, and the power to manipulate the declared level of earnings and profits could be used to mislead members, potential members and other outsiders. More seriously, the freedom with which such reserves can be formed and dissolved, while advantageous to a skilled and experienced management, may lead to unjustifiable investments being undertaken without sufficient objectivity and economic foundation.

Hidden reserve creation may be illustrated as in Figure 4.2, where the thick line represents an asset with a useful life of five years, depreciated by a simple straight-line method. Over-fast depreciation, represented by the thin line, causes hidden reserves to arise during the first four years through asset undervaluation to the extent of the vertical distances labelled i to iv. Such hidden reserves are created

Figure 4.2

Depreciation, asset value and the creation of hidden reserves



For explanation, see text.

at the expense of the profit which would otherwise be declared. If profitability was insufficient and it was not thought desirable to declare a loss, negative hidden reserves to the extent of the vertical distances a to e could in principle be created for five years through over-slow depreciation represented by the broken line in the diagram. The room for co-operative managers to manipulate prices and profit declarations is therefore considerable and could even be detrimental to the long-term interests of the co-operative. This might particularly arise where depreciation is over-slow - i.e. inadequate in the face of technological improvement in equipment or of inflation. It emphasises the importance of sufficient profitability such that full depreciation possibilities can be utilized. This is particularly the case in view of the restrictions placed on accountants to revalue assets: when the time comes for replacement an asset may be more expensive in real terms than it was originally due to technical improvements, a fact which financing policy must recognize even where performance is adequate to support full use of the depreciation potential.

In practice, the regional co-operative auditing associations will ensure that co-operatives fully exploit depreciation possibilities. Where, however, earnings capacity is insufficient, the possibilities may not be fully exploited in the short term, and in the case of dairy co-operatives a particular area of neglect would appear to be that of transport facilities. Delivery and collection vehicles, it is felt, can always have their life 'extended' if circumstances dictate, and this is a preferable path of economy to that of neglecting dairy processing equipment.

In addition to the formation of hidden reserves through 'excessive' depreciation and consequent undervaluation of assets, depreciation at realistic rates can also be a significant source of investment finance for German dairy co-operatives. Depreciation is a means of releasing existing tied-up capital in contrast to acquiring additional capital resources. It does not increase balance sheet size but exchanges tied-up assets for free assets by increasing liquidity. Thus, amounts lost to the balance sheet through the depreciation of fixed assets are replaced by additions to circulating assets as a result of earnings on turnover - the resources thereby freed are then available for other purposes. This method of financing, like reserve formation, relies on sufficient revenue being derived from the co-operative's sales. The extent to which capital is made available depends on the depreciation method chosen (progressive dairy co-operatives are quite adept at ensuring that changes between methods permitted by commercial practice are fully utilized) and on the depreciation quality of the co-operative's fixed assets. This latter point means that constant reinvestment and renewal of assets is required in order to maintain a constant and steady flow of finance from depreciation since older assets may yield nothing or very little, having been written off under the linear method or reduced to a low valuation under the reducing balance approach. Hence, financing through depreciation cannot be a 'stop-go' process, and any sudden investment activity after a period of neglect will unduly reduce the milk price to members and may cause membership defections. Financing through depreciation is a long-term and continuous policy requiring the acquiescence of the membership. The dangers of mishandling this policy are graphically illustrated by the history of one (now defunct) co-operative dairy which entrusted its management to a theoretician: his policy of a rapid heavy investment policy which would make the co-operative a show-piece and attract membership from a wide area foundered upon the unwillingness of the membership to countenance the poor payment performance which this would entail - their mass withdrawal of share capital caused the co-operative to collapse.

The capital-releasing potential of depreciation may lead to an effect known as 'capacity-broadening'*. Theoretically, if the resources freed by depreciation are immediately invested in capital of similar value over a period of years, capacity can be expanded to reach an equilibrium of almost double its initial level. To illustrate this in a purely hypothetical and simplified way, Table 4.3 shows the mechanics of the process for a co-operative starting at stage 1 with an initial investment in ten assets valued at 100 units each which can be depreciated by the straight-line method over five years. Stage 2, before any of the assets have been fully depreciated, leads to more than a doubling of capacity in terms of the number of assets which can be brought into productive use. Stage 3 is a period of fluctuation and consolidation, whereas stage 4 achieves an equilibrium where assets are evenly distributed according to age such that purchases and write-offs are in balance. Throughout the process, the book value of the assets owned by the co-operative as shown in its balance sheet remains constant, yet productive capacity in terms of the assets acquired has increased by two-thirds from the initial level and would have doubled had the investment in new assets been continuous rather than once annually.

In practice, of course, the capacity-broadening effect of financing through depreciation does not proceed so relentlessly. There will be other capital requirements to be financed if the increasing productive capacity is to be fully used; assets are not in reality so homogeneous nor production processes so simple or so divisible; technical progress over time and changing price levels in both input and output markets will have their effect. Nevertheless, financing through depreciation is highly important to dairy co-operatives. It is a significant factor in their noted tendency to expand their activity and to maintain dynamic investment programmes, and it influences not only their financial management but also their policy towards their markets.

Owing to its inherent imprecision and the variety of purposes which it serves, depreciation is by its nature an extremely flexible financing instrument. The factors which depreciation is designed to cover include

* Known in the German literature as the Lohmann-Ruchti effect

Table 4.3

The capacity-broadening effect of financing through depreciation

Year	No. of assets	Acquisition cost	Book value	Depreciation	Additional assets purchased	Assets written off	Stage
1	10	10,000	10,000	2,000	2	--	1
2	12	12,000	10,000	2,400	2.4	--	2
3	14.4	14,400	10,000	2,880	2.9	--	
4	17.3	17,300	10,000	3,460	3.4	--	
5	20.7	20,700	10,000	4,140	4.2	10	
6	14.9	14,900	10,000	2,980	3	2	3
7	15.9	15,900	10,000	3,180	3.1	2.4	
8	16.6	16,600	10,000	3,320	3.4	2.9	
9	17.1	17,100	10,000	3,420	3.4	3.4	
10	17.1	17,100	10,000	3,420	3.4	4.2	
11	16.3	16,300	10,000	3,260	3.3	3	
12	16.6	16,600	10,000	3,320	3.3	3.1	
13	16.8	16,800	10,000	3,360	3.4	3.4	4
14	16.8	16,800	10,000	3,360	3.3	3.4	
15	16.7	16,700	10,000	3,340	3.4	3.4	
16	16.7	16,700	10,000	3,340	3.3	3.3	

the material loss of value of an asset through ageing, its loss of value due to usage as it is employed to create wealth elsewhere, obsolescence due to technical progress, and conservative valuation due to uncertainty as to its resale value. These factors are taken into account when following legal and commercial depreciation principles and are considered in forming a firm's depreciation policy. In so far as such factors are exaggerated or the commercial principles exploited, a firm is incorporating depreciation into its financing policy in order to create hidden reserves.

The effects of depreciation policy are not confined to financing but impinge too upon a firm's costs and revenue. While depreciation formalizes as a cost the effective disinvestment in assets over their working life, allows the provision of a statement of asset values, and provides a provision for the eventual reinvestment in replacement assets, the wide variety of factors which it subsumes and which are not all directly connected with the true loss in value of those assets make it of wider significance. The hidden reserves formed reduced taxable earnings, permit a delay in tax payment and thus create an interest profit on the resultant tax credit. In sum, depreciation policy, where all the commercial and legal possibilities are exploited, is a forward-looking financing technique as well as a precautionary activity.

A recent survey of the situation with regard to depreciation in German dairies (Stöckl, 1981) showed that of 153 firms providing information 46 per cent used at least in part the reducing balance method of depreciation for balance sheet purposes, suggesting a pronounced tendency for dairies to go for fast depreciation so long as their earnings situation permitted. The survey yielded an average level of depreciation applied for balance sheet purposes of 1.51 Pf. per kg. of raw material input, a low figure suggesting that many dairies were unable to apply the fullest rates allowable for tax purposes due to insufficient earnings. This conclusion was borne out in the depreciation figures used internally by the dairies for costings purposes, where they are free to apply any values they deem appropriate: these showed an average of 2.02 Pf. per kg. of raw material input, with some dairies' figures exceeding 8 Pf. Interesting too was the breakdown of these depreciation figures according to the legal form of the dairies, as shown in Table 4.4. Tax-exempt co-operatives, with no need to conceal their earnings, apply, on average, lower rates for balance sheet purposes but

Table 4.4

Depreciation levels in German dairies

(Pf./kg. raw material input)	balance sheet depreciation (1)	internal costings depreciation (2)
All dairies in survey	1.51	2.02
Tax-exempt co-operatives	1.24	1.82
Tax-paying co-operatives	1.47	1.81
Other dairies	2.02	2.31
Average depreciation rate	38%	49%

(1) Asset values and depreciation rates as laid down for taxation purposes.

(2) According to any procedure deemed appropriate by the dairy, since for internal purposes only.

Source: Stöckl (1981)

differ little from other co-operatives for purposes of their internal costings. The universally higher figures in the second column of the Table have two possible explanations, both of some validity. Firstly, the legally allowable depreciation periods may be seen by dairies as being realistically too long and the limitation of depreciable asset values to acquisition cost as too low, particularly in an inflationary period. Secondly, dairies may have had insufficient surpluses to have been able to use their depreciation allowances fully, or may have felt it expedient to declare reasonable profit levels either to create an image of success or to enable the formation of declared reserves.

The survey also sought to assess the extent to which dairies used depreciation to influence their declared earnings levels.* 61 per cent of the 153 dairies used depreciation occasionally or regularly to this end,

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* While depreciation may not be determined by profit levels, since this would violate the principle of orderly bookkeeping so close to the heart of German commercial practice, tax law allows sufficient room for manoeuvre for depreciation to be used as an instrument of policy in this way.

the proportion rising substantially with increasing dairy size. Such cosmetic activity by dairies, while making economic sense as a means of reducing the tax burden, may have drawbacks. The concealment of losses, the veiling of undesirable tendencies, and the dissipation of resources in attempting to hold up the milk price paid to producers by making excessive additional payments may lead to a weakening of the firm in the longer term if managers are insufficiently perceptive. Given the competition between dairies in many regions, inappropriate use of the freedom available with respect to depreciation could have undesirable effects on the situation in a wide area as competing dairies attempt to emulate eachother's prices without regard for long-term viability.

Provisions

A co-operative may make provision in its balance sheet for old-age and invalidity pensions and for widows' and orphans' funds. Such provision means that funds are retained in the business which represent future claims by employees and which need to be generated out of earnings from the turnover process of the co-operative. Where a co-operative introduces a pension scheme, it is able to build up provisions for a considerable period of time based on insurance tables of probabilities concerning death and invalidity before any outpayments become due. As a result the provisions are regarded as a notable and often long-term source of capital. Reductions in the provisions will only take place where employees decline in number or are unexpectedly longeval.

Shorter-term provisions are also possible but are less valuable as a financing method. They include provisions for taxes, for the risks associated with legal actions, and for likely losses arising from particular transactions. A provision may also be created in respect of raw materials when the market price has risen by over ten per cent over the year. The extent of such a provision is calculated by applying to the actual cost of the goods in question the percentage by which market price at the year-end exceeded the actual price plus ten per cent. Such provisions have the effect of an immediate reduction in declared profit, but they must be dissolved within six years.

External borrowing

The financial strength and commercial solidarity of the Raiffeisen co-operative movement as a whole ensures that as a rule German co-operatives are good credit risks. The co-operative auditing requirements bolster this reputation. Nevertheless, substantial uptake of outside credit is relatively rare among the dairy co-operatives examined for this study. This is partly due to high costs of borrowing in recent years, but is also partly for reasons peculiar to co-operatives.

Direct access to the capital markets is precluded for many typical co-operatives owing to their size limitations. Bond issues are therefore virtually unknown and in any event unattractive to a public who require issuers to be companies of standing and preferably quoted on the stock exchange. Outside credit is therefore largely restricted to mundane sources such as trade credit and short-term bank credit. Short and medium-term credit of this nature brings no particular problems specific to co-operatives.

Long-term credit, however, is intimately bound up with a co-operative's own capital which is required by creditors as security. Traditionally, the own capital of co-operatives has not been in a form suitable for the granting of long-term security — it may be too low and the share capital element of it is variable along with membership fluctuations, with the uncertainty which this implies. Although the additional liability of co-operative members over and above their share accounts also represents a surrogate own capital which may be used as a guarantee against borrowing, this has not been attractive to potential creditors since the costs of its realisation in an emergency might well be high. Capital borrowings from members are alternative possible sources of credit but have traditionally been of small significance in Germany where co-operatives by definition are associations of producers with limited capital resources.

In short, the existing capital strength of co-operatives and their members has not traditionally been sufficient to allow much of a broadening of their capital base by outside borrowing, nor have either the State or the co-operative banking movement been disposed to provide such finance at advantageous rates. There is also a feeling among many co-operative managers and, perhaps more importantly, among farmer members that borrowing means loss of independence as creditors increasingly determine the course which a co-operative should pursue. This is a particularly unappealing prospect in view of farmers' perceptions concerning the objectives of 'their' co-operative and the difference between those objectives and those of more overtly capitalist firms, and has the result that internally-generated finance together with the share capital accounts of members are generally preferred.

Larger co-operative organizations, such as the regional centres, where the limitations of size and members' perception do not apply, are on occasion fairly large operators in the short-term money markets in the way that many large businesses are. They lend surplus funds and borrow to cover short-term financing needs either by taking out straightforward bank credit or by exploiting the possibilities of dealing in bills of exchange or in Euro-money where this is financially preferable. Progressive management in smaller co-operatives also occasionally deal in bills of exchange and borrow on the Euro-money markets where this produces finance cheaper than conventional short-term bank borrowing.

Although there exists little formal difference between the co-operative and non-co-operative banking sectors in Germany, since the co-operative banks are well-integrated into the banking system, the co-operative banks may be more adapted to providing external finance to local-level co-operatives. The larger co-operatives, however, and the co-operative centres appear equally happy with non-co-operative banks. It seems to be generally agreed that dairy co-operatives obtain no more favourable terms from their bankers than non-co-operative dairies.

Other sources of finance

In quantitative terms, the sources of finance already discussed overshadow in importance any other financing measures available to a co-operative. The remaining minor sources are set out below for reasons of completeness.

Rationalization and improvement in efficiency may lead to the freeing of capital for further investment if output and turnover can be maintained with reduced capital input. For dairy co-operatives, particular areas of improvement lie in the handling of materials and in storage requirements. It was noticeable among the more progressive dairy co-operatives that considerable resources were expended with the aim of improving production and transport processes in order to free capital of low productivity for alternative uses.

Debt management is another potentially important area. A close watch on payments due to the co-operative coupled with a dilatoriness in paying milk producers appears to be common. In particular, while monthly milk payments cannot be postponed beyond the middle of the month following deliveries, any end-year supplementary payments can be delayed, often by up to one year and occasionally by up to two years, during which time the co-operative effectively has an interest-free loan from its members.

Any capital reorganization which involves an increase in liquidity may also be seen as a minor source of financing. Hence the sale or loan of assets or participations in other firms may take place. The production process itself involves the reorganization of assets as plants and materials are used up to produce more liquid assets. While such liquidity is mostly required to replace the assets used in the production process, any which does not have to be so used immediately represents financial resources available for investment elsewhere. The main example of this is the depreciation already discussed since the assets to which it relates do not require immediate replacement: the depreciation has then had the effect of temporarily substituting liquid for illiquid assets, a process which only has to be reversed after a time-lag during which the liquid funds could be profitably employed.

Alternatives to investment

The benefits of investment in modern equipment are in some instances to be achieved without the necessity for large capital outlay. Many German dairy co-operatives make use of computer installations for controlling product inventories and recording customer requirements, and such installations are normally leased. Generally, however, leasing in this field is not practised so much to avoid capital expenditure but to ensure that dairies can keep abreast of technological changes. One dairy co-operative visited for this study had access to a co-operative computing centre to which many co-operatives, including banks, were linked. Despite the lack of flexibility in programming which such an arrangement entailed, the dairy found it a relatively cheap method of computerization, not least because of the fact that no computer experts or technicians had to be directly employed.

Leasing in other fields is rare among dairy co-operatives. Prior to 1970, it was virtually never practised in German industry because the tax situation was uncertain. Since that time it has grown at a faster rate than total investment, with office machinery (including computer installations) taking the lead, but as far as dairy co-operatives are concerned it is not a recommended course of action. This is due to the fact that for profit-oriented firms, it is only the tax benefits which make leasing worthwhile; for firms such as dairy co-operatives, which are not oriented towards balance sheet profits but towards high producer prices and which consequently benefit little from tax savings, leasing is not financially attractive and may over the life of the assets concerned even have an overall negative effect on the milk price paid to producers (Neitzke, 1981b; 1981c).

Another way in which dairies are able to cut down capital outlay is by reducing their involvement in transport. Contracts with outside transport forms appears increasingly prevalent for both the collection of milk from farms and the delivery of dairy products to customers. This tendency is in considerable measure attributable to what many managers see as undesirable trends within the labour market: it is felt that the employment of staff, with all the associated extras such as statutory sickness and pension benefits and union-negotiated Christmas bonuses, compares unfavourably with contracts made with outside businesses, often entrepreneurial in character and consequently highly motivated.

The use of the transport facilities provided by private operators takes many forms. Instances met with include that of the dairy simply paying a freight tariff, or that of the dairy owning part of the equipment (such as the milk tank but not the whole lorry, or just the measuring equipment). Dairies sometimes even finance transporters in their acquisition of equipment.

Outside assistance

As already mentioned, German dairy co-operatives are not generally in receipt of financial assistance which is not equally available to other firms. Dairy co-operatives visited for this study were sometimes in receipt of 10 per cent investment grants on machinery, which reduce the book value of assets acquired under new investment plans, and some were able to make use of the special rates of depreciation available in the areas adjoining the East German border. Grants are also available for energy-saving measures.

Since 1963, assistance has also been available from the European Guidance and Guarantee Fund within the framework of structural improvement measures. The rationalization of cheese-making capacity in Schleswig-Holstein has benefitted from such funds. As with investment grants, such receipts are not reflected in the balance sheet values for assets acquired which are valued net of grants. They are thus a mixed blessing since low asset valuations mean low depreciation possibilities and depreciation, as has been shown, is an important means of financing new investment. Any inability by a co-operative to utilize fully its depreciation potential because of this results in a danger that funds which ought to be retained in the co-operative are in fact lost to it through a high milk price. By way of compensation, grants may be credited directly to reserves upon receipt and thus allow co-operatives to circumvent the normal reserve formation procedure.

The fact that agriculture in Germany is largely organized on a regional (Länder) basis means that some dairy co-operatives benefit from schemes in their region to encourage investment. An example is the current Bavarian agrarian credit programme which provides grants for reducing interest payments. The EEC structural improvement programme also has varying regional impact, with the grant-aiding of appropriate investments and of assistance in co-operative mergers amounting to 50 per cent in some areas and 20 per cent more generally. In north-west Germany, grants for investments which create employment are available for 7½ per cent of the sums invested; one co-operative centre visited had invested some 70 million DM. between 1980 and 1982 which had resulted in a grant of 5.5 million DM and a corresponding reserves increase of this amount. In general, however, dairy co-operatives, particularly the local-level co-operatives, appear to have benefitted little in recent years from direct subsidisation.

Chapter Five

Financial analysis of a selection of German dairy co-operatives

The financial information provided by German co-operatives follows a fairly uniform pattern. Annual management reports, including a balance sheet, a profit and loss account and some comment on the year's trading are generally published, although in many cases these are of limited value in themselves for purposes of analysis by an outsider. For this reason, several dairy co-operatives were visited for this study, their accounts and financial policy discussed in some detail with the management, and in many cases additional non-published and often confidential financial documents consulted.

It was apparent that many dairy co-operatives were extremely reluctant to provide information other than on an informal basis and on the strict understanding that it would not be published in a form whereby its origins could be determined. In some cases, even the balance sheets and profit and loss accounts were only made available after initial contact had been made and adequate assurances given, and in one case even then the latest figures were not released. Managers were, however, uniformly willing to provide much information verbally both to supplement and in some cases even to 'straighten' the published data.

Such a 'reaching behind' published information is essential for financial analysis. For that reason, the contents of this chapter are not intended to stand alone but to be seen in conjunction with the observations of the earlier chapters. Balance sheets are static snapshots of a firm's financial state where assets values are given without regard for their significance in terms of their liquidity or for their true present value. They show single instances in the past and the present and require supplementation by management accounts and commentary if they are to be used to provide a dynamic view of the firm's existence and adequate information in the fields of financing and investment. Apart from misconceptions which could arise from a partial view of financial movements, balance sheets also include manipulation of valuations and the creation and dissolution of hidden reserves which are not part of revenue and expenditure. They also provide no information as to a co-operative's credit lines or as to how far short-term borrowings are automatically renewable, nor do they indicate short-term cosmetic improvements such as the extent to which maintenance and repairs have been neglected to improve profit performance. They also cannot show which of a co-operative's assets are of peripheral value to its activities and are thus available to finance a short-term liquidity problem.

Details of German co-operative accounts, as required by law, are given in the Appendix.

Own capital

The own capital of German co-operatives consists of the paid-up share accounts of members who have not given notice of leaving the co-operative; the declared reserves, including the legal reserves, the operational reserves, any participatory reserves and reserves created under paragraph 6b of the income tax law*; and the balance sheet profit. For reasons already given, the balance sheet profit displayed by a dairy co-operative is generally negligible unless the co-operative is tax-exempt or is particularly anxious to build up its declared reserves.

The declared profits of 16 dairies examined for this study were on average 0.3 per cent of balance sheet total in 1982, while the averages noted by the regional Raiffeisen associations for their associated dairy co-operatives in 1981 and 1982 ranged from 0.2 to 0.4 of balance sheet total. Thus, declared profits contribute insignificantly to own capital in practice.

* See the discussion of hidden reserves in the previous chapter.

As shown in the last chapter, considerable variation is apparent in the proportion of nominal share capital which members are obliged to contribute immediately upon joining the co-operative. This ranged from 10 per cent to 100 per cent, and is backed up by a frequent requirement laid down in the co-operative's statute that the payment of additional milk monies in the form of co-operative rebates* from surpluses will be automatically credited to share accounts where these are not fully paid up. As a result, many of the dairy co-operatives examined for this study had already raised a high proportion of the capital available from this source: for 12 local-level co-operatives the proportion of nominal share capital already paid up was 94 per cent in 1982, and for 4 co-operative centres the equivalent proportion was 87 per cent. This suggests that the extent of own capital formation from member shareholdings is approaching its limit for most individual co-operatives, and that more reliance will need to be placed on reserve formation (largely out of taxable profits) to maintain own capital.+ This is precisely the path that some tax-exempt dairy co-operatives have already trodden: one such co-operative studied had only 31 per cent of its nominal share capital paid up because the management had preferred to concentrate on reserve formation, taking full advantage of the ability to declare tax-free profits. The majority of co-operatives, however, do not have such tax advantages and in their formation of own capital will have to face the twin problems of member resistance to the declaration of taxable profits and the tax haemorrhage involved.

Table 5.1 presents details of the importance of share capital accounts in the own capital funds of a number of German dairy co-operatives. The average proportion of own capital accounted for by shares appears somewhat lower for second-tier co-operative centres, possibly reflecting the fact that these co-operatives may find it easier to convince their members (mainly local-level co-operatives) of the need for adequate reserve formation. For comparison, the reliance on share capital of non-co-operative dairy firms is illustrated, where the variability of share numbers in line with membership fluctuations is absent.

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* See the last section of Chapter 3.

\+ The introduction of milk quotas adds force to this conclusion since milk deliveries from members can no longer expand.

Table 5.1

Paid-up share capital as a proportion of own capital(1) for a number of German dairies, 1980 - 1982 (%)

Co-operative centres	%
A	64
B	50
C	70
D	50

- Average for A to D: 59
- Average for all Raiffeisen regional centres, 1982: 57

Local-level co-operatives	%
A	21
B	79
C	63
D	54
E	69
F	58
G	70
H	76
I	74
J	86
K	74
L	57
M	77
N	45

- Average for A to N: 64
- Average for all Raiffeisen dairy co-operatives, 1982: 61
- Averages for individual Raiffeisen regions:

A	56
B	59
C	-
D	66
E	-

Non-co-operative dairies	%
A	78
B	67
C	96

(1) For definition, see text.

Sources: author's research and Raiffeisen literature.

Table 5.2

The declared reserves of a number of German dairies, 1980-1982

	Legal reserves as % of total declared reserves	Total declared reserves as % of balance sheet total
Local-level co-operatives		
A	77	43
B	86	7
C	57	18
D	69	16
E	47	16
F	62	16
G	-	7
H	-	5
I	-	10
J	-	6
K	-	10
L	61	22
M	-	9
N	-	22
• Average for A to N:	66	15
• Average for all Raiffeisen dairy co-operatives, 1982:	-	15
• Averages for individual Raiffeisen regions :		
A	-	19
B	-	19
C	-	-
D	-	15
E	-	-
Co-operative centres		
A	39	9
B	92	5
C	10	7
D	-	5
Average for all Raiffeisen regional centres, 1982:	-	6
Non-co-operative dairies		
A	-	8
B	-	6
C	-	1

- = not available or not published.

Sources: author's research and Raiffeisen literature.

The formation of adequate reserves, which must largely be from profits, is strongly encouraged by the regional auditing associations and by the Raiffeisen organisation in general. As already indicated, however, reserve formation may encounter resistance among co-operatives' membership who are naturally reluctant to see funds declared as profits and thus partially dissipated in corporation tax, and this can lead to headaches for co-operative management which has to tread a careful path between the demands of members and those of the Raiffeisen auditors.

Table 5.2 shows the importance of reserves in the balance sheets of dairy co-operatives examined for this study. For local-level co-operatives, legal reserves (those whose formation is obligatory and designed for use in covering a balance sheet loss) average around two-thirds of total reserves. A marked difference between the situation for second-tier co-operative centres and local-level co-operatives is apparent with respect to the importance of total reserves to balance sheet total, a difference confirmed by Raiffeisen's own figures for all co-operatives in 1982. It is probable that the emphasis placed on reserve formation by the majority of local-level co-operatives reflects, firstly, the potential variability of their share capital, which co-operative centres have reduced by the introduction of longer notice periods for members, and which is in any case likely to be less due to those members being co-operatives rather than individuals; and secondly, their somewhat weaker position as borrowers of outside capital.

Table 5.3 relates own capital in total to balance sheet total for the dairy co-operatives studied. For local-level co-operatives, the average is 40 per cent, which is borne out by comparable figures from some of the regional Raiffeisen associations and figures for all Raiffeisen dairy co-operatives.* However, this figure is low in comparison with the requirement of many dairy co-operatives' statutes that reserves alone should be built up to 40 per cent of balance sheet total. It follows that for a considerable time to come a good proportion of any profits declared will automatically revert to the reserves without recourse to a General Meeting decision. It also means that, given the current low level of profit declarations, it will be a long time before

* The comparable figure for dairy co-operatives in Holland is apparently 25 per cent, suggesting a considerably different financing emphasis.

Table 5.3

Own capital(1) as a proportion of balance sheet total for a number of German dairies, 1980-1982

Co-operative centres	%
A	27
B	10
C	23
D	10

- Average for A to D: 17
- Average for all Raiffeisen regional centres, 1982 : 14

Local-level co-operatives	%
A	56
B	33
C	48
D	35
E	51
F	38
G	33
H	21
I	38
J	44
K	38
L	51
M	39
N	42

- Average for A to N: 40
- Average for all Raiffeisen dairy co-operatives, 1982 : 38
- Averages for individual Raiffeisen regions:

A	44
B	46
C	45
D	47
E	40

Non-co-operative dairies	%
A	41
B	21
C	23

Average for A to C: 28

(1) For definition see text.

Sources: author's research and Raiffeisen literature.

most co-operatives achieve the reserve levels generally considered desirable by the regional associations.

The own capital component of the total capital available to the dairy co-operative centres is considerably lower even than that of the non-co-operative dairies. This reflects partly their greater ability to borrow from outside and to call upon their member dairies with relative ease for additional capital where required.

A co-operative's own capital represents the capital base on which the co-operative's business activity is built and has several significant characteristics. From the co-operative's viewpoint, own capital represents in large measure a permanent stock of funds which does not have to be periodically renewed nor does it have to be remunerated. It is also of value vis-à-vis potential creditors as a security for further borrowed capital.

Static consideration of balance sheet relationships is of limited value both for potential creditors and for academic studies. Nevertheless, general rules about such relationships, if not rigidly and exclusively applied, are useful guidelines which frequently surface in discussion with Raiffeisen representatives. One such rule is the relation of own capital funds to fixed assets: this is illustrated for the co-operatives considered for this study in Table 5.4. The 'rule' is that coverage should be 100 per cent, a figure very close to the average for the local-level dairy co-operatives studied. The coverage will, however, be well short of this figure for recently-established co-operatives and will rise as asset valuations are reduced by depreciation : the shortfall, known as the own capital gap, will have to be financed by borrowing, preferably long-term.

Regional variations in the own capital coverage of fixed assets appears to be quite pronounced, which is at least partly attributable to the different timing of investment activity in the regions. This is illustrated very tellingly in Table 5.5 where the investment and its financing for two regions is compared. Both regions currently have own capital gaps of just under 20 per cent, but these are the result of very different investment

Table 5.4

Own capital[1] coverage of fixed assets[2] for a number of German dairies, 1980 - 1982

Co-operative centres	%
A	60
B	99
C	52
D	23

Average for all Raiffeisen regional centres, 1982: 85

Local-level co-operatives	%
A	138
B	61
C	74
D	79
E	139
F	86
G	63
H	47
I	106
J	83
K	154
L	108
M	67
N	162
• Average for A to N:	98
• Average for all Raiffeisen dairy co-operatives, 1982 :	82
• Averages for individual Raiffeisen regions:	
A	95
B	105
C	109
D	84
E	81

Non-co-operative dairies	%
A	198
B	47
C	39

(1) For definition, see text.
(2) Fixed assets include investments in other (mostly co-operative) firms.

Sources: author's research and Raiffeisen literature.

Table 5.5

Fixed asset coverage for German dairy co-operatives, 1977-1981 (DM. mns)

	1977	1978	1979	1980	1981
(a) Processing dairy co-operatives in Weser-Ems					
Book value of fixed assets and investments	136	140	151	148	151
Own capital	96	102	109	116	122
Shortfall financed by borrowing	40 (29.4%)	38 (27.1%)	42 (27.8%)	32 (21.6%)	29 (19.2%)
(b) All dairy co-operatives in Kurhessen (of which 1/3 processing)					
Book value of fixed assets and investments	58.8	60.7	61.5	71.9	77.6
Own capital	53.9	57.9	58.8	60.9	65.0
Shortfall financed by borrowing	4.8 (8.2%)	2.8 (4.6%)	2.7 (4.4%)	11.0 (15.3%)	12.6 (16.2%)

Sources: regional Raiffeisen Associations.

histories. Weser-Ems has had a fairly steady investment programme for its processing dairy co-operatives (which form the majority of its total number of dairy co-operatives), more than matched by own capital acquisition: this has resulted in a historically fairly substantial own capital gap which has been steadily reduced. Kurhessen, where the structure of co-operative dairying is less stable with only one third of the total number of dairy co-operatives conducting their own processing, has invested substantially since 1979, thereby opening up an own capital gap not traditionally experienced: although the fixed asset stock has increased in percentage terms by almost one third since 1977, co-operatives have been less successful than those in Weser-Ems in amassing own capital resources.

Table 5.4 also shows a considerable number of local-level dairy co-operatives to have own capital resources in excess of those required for fixed asset coverage. In other words, part of their current asset requirements are also financed from own capital resources.

Other long-term capital

Apart from its own capital funds, long-term capital is available to dairy co-operatives from provisions, much of them for employees' pension schemes, and long-term borrowing from credit institutions and from within the dairy co-operative circuit. Provisions form a highly significant proportion of total capital for many local-level dairy co-operatives, as column (1) of Table 5.6 shows, averaging 11 per cent for the local-level co-operatives studied and with some individual co-operatives exceeding 20 per cent. The Table also shows considerable variation among individual co-operatives, partly related to the length of time pension funds have been established as well as to the degree to which they have exploited opportunities for provision formation.

For co-operatives providing details of the composition of their provisions, it is evident that around two-thirds of provisions are generally regarded as long-term capital funds. Although this proportion varies from firm to firm, it has been taken as a general rule in the calculation of column (3) of Table 5.6, which relates the sum of long-term provisions and

Table 5.6

Provisions and other long-term capital as a proportion of balance-sheet total for a number of German dairies, 1980-1982

	(1) Provisions as % of balance sheet total	(2) Long-term borrowings as % of balance sheet total	(3) All long-term outside capital as % of balance sheet total
Co-operative centres			
A	12	14	22
B	10	0	6
C	7	0	5
D	1	23	24
Average for all Raiffeisen regional centres, 1982:	8	-	-
Local-level co-operatives			
A	16	0	11
B	7	13	18
C	18	0	12
D	21	4	18
E	4	0	3
F	25	1	21
G	1	18	18
H	7	18	23
I	20	0	13
J	3	7	9
K	7	0	5
L	9	5	13
M	7	6	11
N	5	0	3
• Average for A to N:	11	5	13
• Average for all Raiffeisen dairy co-operatives, 1982:	8	-	-
• Averages for individual Raiffeisen regions:			
A	6	4	8
B	14	1	10
C	-	-	8
D	5	8	11
E	4	-	-
Non-co-operative dairies			
A	12	1	9
B	16	1	11
C	6	24	27

Sources: author's research and Raiffeisen literature.

borrowings to total balance sheet, for dairies where no alternative figure was available. The extent of long-term borrowings (column (2) of Table 5.6) among dairy co-operatives, particularly the local-level co-operatives, appears to be modest in the majority of cases, averaging only 5 per cent of balance sheet total for the local-level co-operatives studied. Some instances of heavy borrowing do exist, however, particularly among butter and cheese specialists, and some large second-tier co-operative centres and private dairies also make substantial use of long-term loans. Many co-operatives, however, have shied away from this source of funds in recent years, largely on account of its cost. In their calculations, however, they have to consider that the building up of long-term own capital in the form of reserves is also a costly matter on account of corporation tax liability on declared profits. The building up of capital in the form of member share accounts is by far the cheapest way of acquiring long-term capital where this path is still open to an individual tax-paying co-operative.

The 'golden rule' of financing requires that short-term capital be used for financing short-term assets while long-term assets be covered by long-term capital - a congruity of term is thereby achieved between the finance available and the use to which it is put. While the 'rule' is a static requirement, not to be applied rigidly to a balance sheet irrespective of circumstances, and while it does not automatically guarantee the maintenance of financial equilibrium nor a firm's liquidity, it is regularly employed as a general rule of thumb in order to determine whether potential financing problems might arise if too much reliance is placed on the automatic renewal of short-term borrowings.

Table 5.7 applies the 'golden financing rule' to the dairy accounts analysed for this study. The majority of local-level dairy co-operatives appear easily to satisfy the requirements of the rule: the average for the co-operatives studied was 125 per cent coverage of fixed assets by long-term capital made up of own capital plus long-term provisions and long-term borrowing, a figure borne out by figures obtained for some individual Raiffeisen regions. Co-operative centres and other dairy firms, however, appear in general less concerned to match long-term capital with long-term assets.

Table 5.7

Long-term capital coverage of fixed assets (1) for a number of German dairies, 1980-1982

Co-operative centres	%	Local-level co-operatives	%	Non-co-operative dairies	%
A	109	A	168	A	236
B	145	B	94	B	71
C	65	C	92	C	88
D	76	D	120		
		E	146		
		F	131		
		G	96		
		H	98		
		I	140		
		J	98		
		K	176		
		L	136		
		M	86		
		N	167		
		• Average A to N:	125		
		• Averages for individual Raiffeisen regions:			
		A	113		
		B	126		
		C	129		
		D	105		

(1) Fixed assets include investments in other (mostly co-operative) firms.

<u>Sources</u>: author's research and regional Raiffeisen associations.

Fixed assets

As shown in column (1) of Table 5.8, fixed assets, both material assets (comprising land, buildings, vehicles, machinery and equipment) and financial assets (comprising investments in other firms, mostly co-operatives), generally form around 45 per cent of dairy co-operative balance sheets. For those co-operative centres which act as clearing stations for the local-level co-operatives in their region, the proportion may be much lower since such centres may do little more than store and market co-operative produce. The proportion varies among local-level co-operatives, depending upon the processing activities upon which they are engaged.

The extent of fixed asset possession, principally material assets, clearly determines the absolute amount which co-operatives may write down each year in depreciation. Table 5.8 (column (2)) shows that on average dairies managed to write off annually almost 20 per cent of material fixed assets in the years under consideration*. As already indicated, the flexibility permitted as to the method of depreciation is fully utilized by co-operative management. In the case of a small number of co-operatives studied, special depreciation provisions could be invoked due to proximity to the East German border, and these are estimated to have added just over 50 per cent to the depreciation amounts which would otherwise be permitted. The amount of fixed asset depreciation per kilogram of milk throughput varied widely for the dairies studied (column (3) of Table 5.8), averaging 2.4 Pf./kg. for the local-level co-operatives, a figure somewhat higher than those given by two of the Raiffeisen regional associations for the dairy co-operatives in their areas. The variations between dairies are linked to overall profitability, and thus the amounts dairies can afford to charge to depreciation while still paying a satisfactory milk price to suppliers, and to their activities, since fixed asset levels will vary accordingly.

Current assets

The financing of current assets is clearly of vital importance to dairy co-operatives. As shown earlier, many dairies have long-term capital in excess of that immediately required to cover their fixed assets and financial participation in other firms, and to this extent current assets

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* Assets here include land, which is not depreciated, due to the difficulty of separating it from other assets in the accounts.

Table 5.8

Fixed assets and their depreciation for a number of German dairies, 1980-1982

	(1) Material and financial fixed assets as % of total balance sheet	(2) Depreciation as % of material fixed assets	(3) Fixed asset depreciation per kg. milk purchased (Pf.)
Local-level co-operatives			
A	40	12	1.1
B	54	18	3.5
C	65	13	2.9
D	44	22	3.5
E	37	27	0.7
F	45	14	1.7
G	53	11	-
H	45	20	-
I	36	22	-
J	54	14	-
K	24	33	1.9
L	47	22	3.6
M	58	16	-
N	27	29	-
· Average for A to N:	45	19	2.4
· Average for all Raiffeisen dairy co-operatives, 1982:	45	-	-
· Averages for individual Raiffeisen regions:			
A	46	17	1.2
B	44	-	-
C	41	-	-
D	55	14	1.9
E	49	-	-
Co-operative centres			
A	45	20	2.1
B	11	11	-
C	43	17	-
D	45	17	-
Average for all Raiffeisen regional centres, 1982:	16	-	-
Non-co-operative dairies			
A	21	27	1.9
B	45	16	2.8
C	57	14	4.6

Sources: author's research and Raiffeisen literature.

(which comprise stocks of raw materials and goods in various stages of processing, amounts owed to the co-operative and liquid means) are financed out of long-term capital. To the extent that this is not the case, current assets are financed out of debts owing to the co-operative membership and to others from whom milk and dairy products are obtained, out of provisions which are regarded as short-term, and by short-term borrowings from banks.

The relationship between dairies' current assets and their short-term liabilities is an indication of their liquidity. Two such static liquidity measures are given in Table 5.9 for the dairies analysed for this study. Static liquidity measures need to be seen as being of limited value since they are measured at one particular moment when dairies are presenting their position to a wider audience. It was clear that most regional associations were keen to ensure an appropriate level of liquidity was apparent at balance sheet date, although one region in particular was noted to set less store upon this than the others. Nevertheless, the generally high liquidity levels shown by the majority of local-level co-operatives is interesting and not always reflected in the levels shown by the second-tier co-operative centres. Many local-level co-operatives had extremely high levels of liquid assets at their banks, in one case amounting to over 30 per cent of balance sheet total. On some occasions such apparent unproductive use of capital resources seemed to be the result of the co-operatives' tax-exempt status since, in order not to prejudice such status, caution had to be exercised in the way temporarily surplus funds were invested if the co-operatives were not to step outside their functions as laid down in their statutes.

The largest proportion of current assets is invariably the sum of amounts owed to the dairies in respect of their trading. Complaints are frequent that the ethics surrounding the payment of debts are worsening, with firms increasingly attempting to finance themselves at the expense of co-operatives. Co-operatives themselves are naturally reluctant to behave in this way with their membership and are normally constrained to pay for milk in the middle of the month following delivery. They can, however, delay the additional payments made for milk in the form of co-operative rebates.

Table 5.9

The liquidity position of a number of German dairies, 1980-1982

	(1) Current assets as % of short-term liabilities	(2) Amounts receivable plus liquid assets as % of short-term liabilities
Local-level co-operatives		
A	265	237
B	100	73
C	106	78
D	143	116
E	146	144
F	157	132
G	100	81
H	104	66
I	157	90
J	103	84
K	139	100
L	158	93
M	87	58
N	144	122
• Average for A to N:	136	105
• Averages for individual Raiffeisen regions:		
A	119	98
B	147	120
C	125	-
D	112	77
E	-	-
Co-operative centres		
A	118	84
B	113	94
C	81	42
D	83	41
Non-co-operative dairies		
A	178	156
B	110	63
C	91	67

Sources: author's research and regional Raiffeisen associations.

Many co-operatives make such additional milk payments one year after the end of the year for which they are due, and it is said that some manage to delay payment for a full further year, thus obtaining interest-free credit from their membership for up to two years for often considerable sums. With regard to debts receivable, however, the payment period for intervention purchases is normally 61 days, longer than it has traditionally been in Germany* but counterbalanced by falling interest rates. Individual dairies can often reduce the liquidity problem implied by this delay in payment by channelling their intervention sales through the regional co-operative centres. These centres normally make payment after around one month to help local-level dairies who make payments to producers in the middle of each month. This cushion between local-level co-operatives and their markets represented by the second-tier co-operative centres is also sometimes apparent for non-intervention transactions: one centre visited made twice-monthly payments to its co-operative suppliers.

The main problem area for debts receivable is experienced by dairy co-operatives which export their products directly. Not only can payment periods be long and erratic, but bad debts can arise and are normally countered by making a provision of at least 2 per cent of amounts receivable from overseas. The position is eased by export credit guarantees given by a Federal Government body (Hermes), which sets rates of risk for individual importing countries and clients and gives exporters insurance coverage accordingly. The usual rate of coverage appears to be around 70 per cent, so that exporters must bear the remaining 30 per cent of risk themselves, but in individual cases the coverage rate might drop to zero (as recently in the case of Algeria), in which case exporters export entirely at their own risk.

Bank borrowing

The bank borrowing of the dairies analysed for this study are detailed in Table 5.10. Of the local-level co-operatives, very few make use of such borrowing facilities in a substantial way and many had no outstanding loans at all, either short or long-term. The picture for the

* Although this period is short by the standards of some countries - 90 days is the usual period in Holland and it may be up to 130 days in the U.K.

Table 5.10

The bank borrowing of a number of German dairies, 1980-1982

	Long-term borrowing as % of total balance sheet	Short-term borrowing as % of total balance sheet	Total bank borrowing as % of total balance sheet
Local-level co-operatives			
A	0	0	0
B	13	13	26
C	0	0	0
D	4	1	5
E	0	0	0
F	0	0	0
G	18	-	-
H	18	9	27
I	0	3	3
J	7	0	7
K	0	13	13
L	5	2	7
M	6	10	16
N	0	-	-
. Average A to N:	5	4	9
. Average for all Raiffeisen dairy co-operative 1982:	-	-	13
. Averages for individual Raiffeisen regions:			
A	4	-	-
B	1	1	2
C	-	-	-
D	8	-	-
E	-	-	-
Co-operative centres			
A	14	14	28
B	0	23	23
C	0	33	33
D	23	61	84
. Average for all Raiffeisen regional centres, 1982:	-	-	28
Non-co-operative dairies			
A	1	0	1
B	1	2	3
C	24	21	45

\- signifies not available or not published.

Sources: author's research and Raiffeisen literature.

second-tier co-operative centres was completely different with often substantial loans, particularly short-term, in evidence. Raiffeisen's own figures for total indebtedness to banks also reflect this position, with regional co-operative centres on average relying on banks for some 28 per cent of their capital resources as opposed to a corresponding figure of 13 per cent for all other dairy co-operatives.

Development of assets and capital resources

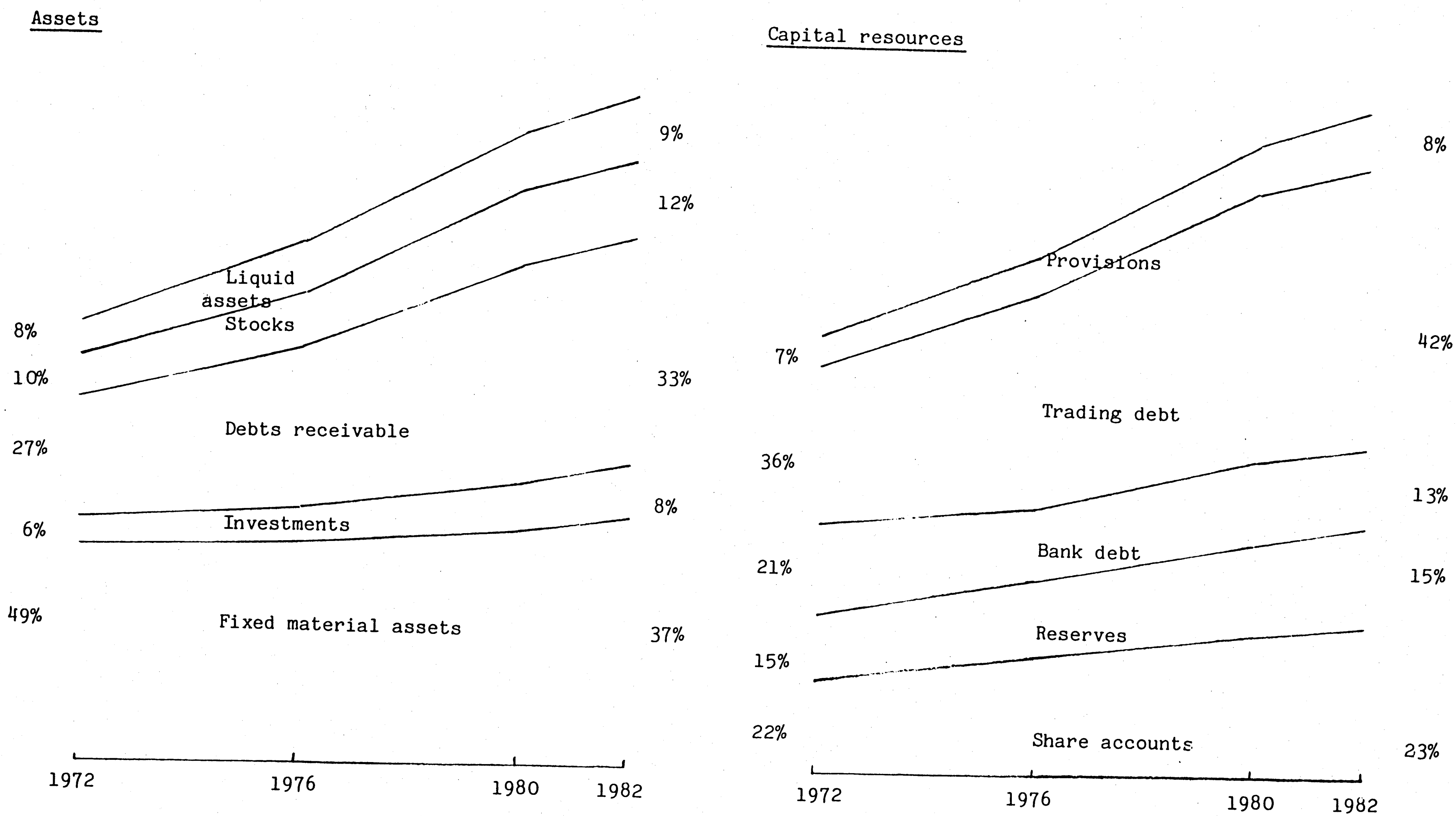
Figure 5.1 shows the development of the structure of assets and of capital resources for all Raiffeisen dairy co-operatives over the past decade. The aggregated asset total for the whole dairy co-operative sector has risen by just over 50 per cent during that period, with the proportion accounted for by current assets rising from 45 per cent to 55 per cent of the total. Investment in fixed assets has therefore declined appreciably in relative importance compared with the need to finance current assets by means of short-term working capital. This relative decline in the importance of the material fixed asset base as the declining number of co-operatives has broadened its overall business volume has been partly offset by increasing investments as local-level co-operatives increase their share accounts with second-tier co-operative centres.

Own capital resources were only sufficient to cover some two-thirds of fixed assets in 1972, a figure increased to an 84 per cent coverage by 1982, showing a considerable success by co-operatives in retaining funds by transfer to member share accounts and to reserves. As a consequence, the level of bank borrowing has declined over the decade not only in relative but also in absolute terms.

Figure 5.2 shows the capital and asset development for a sizeable group of local-level dairy co-operatives in North Germany. Their area is characterized by a sizeable growth in the activity of second-tier co-operative centres of which the co-operatives are members and to which they send whole milk or skim milk surplus to their own processing requirements. The majority of the local-level dairies have some processing capacity themselves.

Figure 5.1

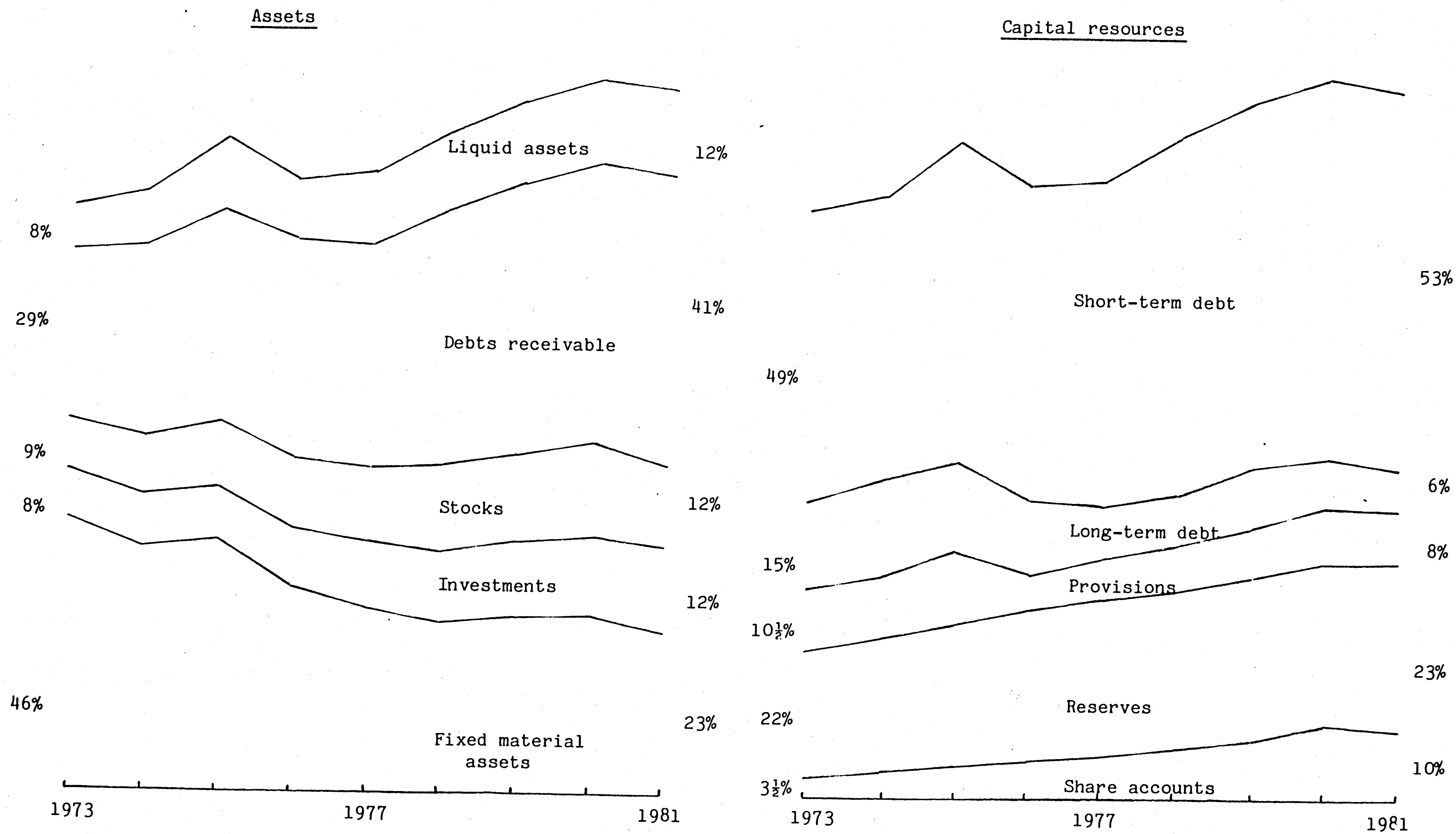
The assets and capital resources of German dairy co-operatives, 1972-1982



Source: Raiffeisen statistics.

Figure 5.2

The assets and capital resources of a selection of local-level North German dairy co-operatives, 1973-1981



Source: relevant regional Raiffeisen Association statistics.

The value of the fixed material assets maintained by the local-level co-operative sector has declined substantially in absolute terms as a result of the structural change and the rationalization of processing which has taken place; the nominal value of the co-operatives' financial participation in their centres has almost doubled over the same period. Own capital resources were increased substantially over the period considered, such that coverage of fixed assets rose from under half to almost total coverage. Again, long-term debt, largely to banks, could be reduced in absolute terms.

Figure 5.3 illustrates over the same period the growth of the regional co-operative dairy centres in Germany, of which there were thirteen in 1982. Their activity has expanded enormously, particularly since 1980, such that their total resources has more than doubled over the decade shown. Again, the importance of financing investment in fixed assets has declined relative to that of funding current assets, and throughout the period own capital has been virtually sufficient to cover fixed assets. In the case of those co-operative centres, however, the expansion of activity has made recourse to bank borrowing essential and feasible given their commercial weight.

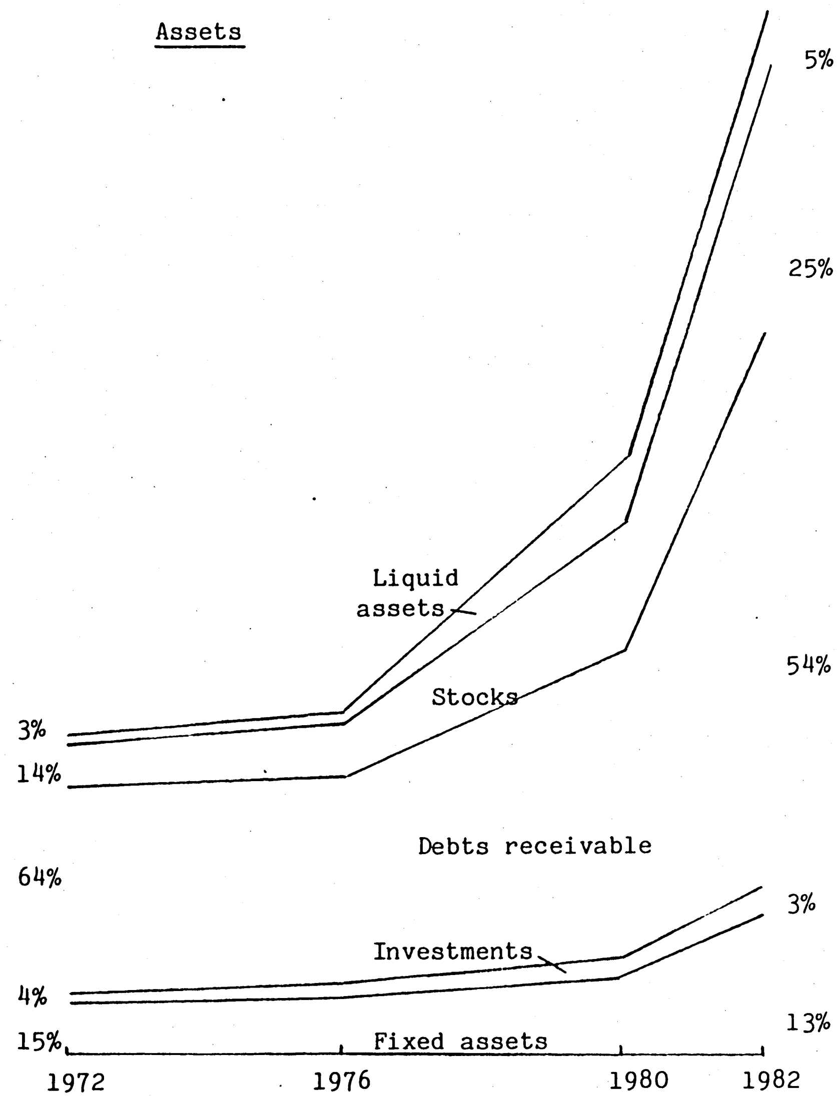
Generation of investment resources

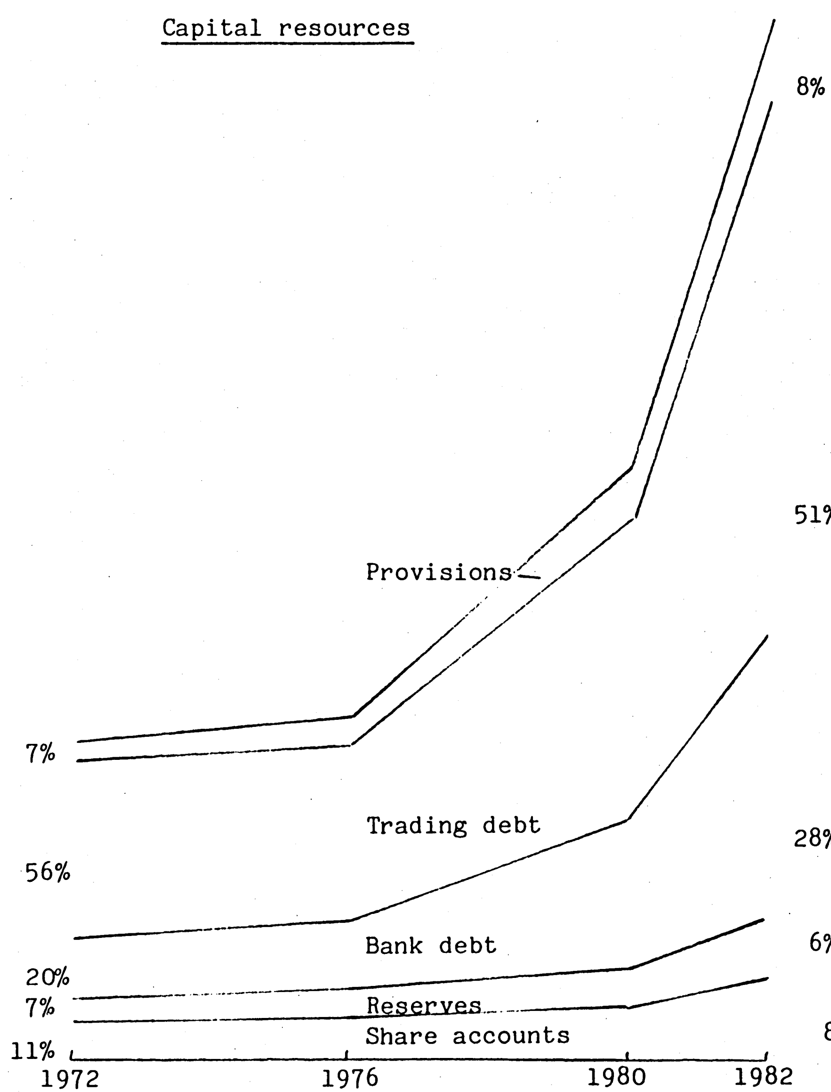
The analysis hitherto in this chapter has been essentially static, based on information made available at one instant in time by individual co-operatives in accordance with their disclosure requirements and obligations to members. For a complete picture, some attempt needs to be made at a more dynamic view of the resource creation, procurement and investment process of some individual dairy co-operatives. This can be achieved in terms of examining cash flows and capital flows.

As background, Table 5.11 shows the pattern of investment activity in two German regions over the past twenty years. An investment boom is noticeable in both areas in the early 1970s when substantial public financial assistance was made available. The recent boom in Kurhessen follows low investment levels in the mid-1970s and represents a concerted attempt orchestrated by the regional association to modernize and rationalize the co-operative dairy sector.

Figure 5.3

The assets and capital resources of German regional co-operative dairy centres, 1972-1982





Source: Raiffeisen statistics.

Table 5.11

Investment activity of dairy co-operatives in Lower Saxony and Kurhessen, 1960-1981

(New and replacement investment in fixed assets)
(DM. mns)

	1960	1963	1965	1968	1970	1971	1972	1973
Lower Saxony	n/a	32.5	n/a	29.0	49.5	63.5	59.0	46.5
Kurhessen	5.3	n/a	11.6	n/a	21.9	16.8	9.9	11.2

	1974	1975	1976	1977	1978	1979	1980	1981
Lower Saxony	28.0	40.0	31.0	33.5	31.5	37.0	37.5	35.0
Kurhessen	7.4	10.6	10.3	11.5	10.4	13.7	20.1	21.6

	Total value of fixed assets (1981)
Lower Saxony	131.2
Kurhessen	72.7

Source: regional Raiffeisen association statistics

The sustaining of the investment levels required of individual dairy co-operatives in order to remain competitive and successful within a rapidly changing dairy sector requires adequate levels of cash flow in order that reserves can be constituted and full amounts of depreciation charged. Table 5.12 gives details of German dairies' cash flow. Cash flow is defined as the dairies' balance sheet profit plus the amount added to reserves over the year in question together with the amount set aside for depreciation and any other (downward) valuation adjustments - it is thus a more appropriate measure than straightforward profitability where, as with co-operatives, the declaration of profits is not a primary management aim.

Column (1) of the Table indicates an average return on turnover of just under 3 per cent for the local-level dairy co-operatives studied, with a range from as low as 0.4 per cent up to 4.5 per oent. Column (3) gives an indication of the overall profitability of the capital employed by the dairies - again a wide range is apparent for an overall average of almost 10 per cent.

Column (2) relates cash flow to the total investment made in fixed assets (material and financial) for the year under consideration. A wide variation in ability to cover investment in this way is bound to be the case, with an occasional dairy not making large investments and some dairies caught up in investment booms which are possibly regional in character and inspired by the regional Raiffeisen associations. However, half the eight local-level dairy co-operatives in the Table could cover or virtually cover their investment, as could the co-operative centres.

Capital flow accounts can be used to illustrate the financing procedures pursued by dairy co-operatives over a series of years. The origin of capital available for investment and the investments in assets actually made are compared with a view to obtaining a more complete picture of financing than that provided by a simple balance sheet examination. Capital flow accounts drawn up by outsiders from published material supplemented by items of additional information are nevertheless limited in their information content, since details on the maturities of debts, both owing and owed, are missing, as are precise details of changes in the provisions made by the co-operatives.

Table 5.12

The cash flow of a number of German dairies, 1980-1982

	(1) Cash flow as % of turnover	(2) Cash flow as % of investment in fixed assets	(3) Cash flow as % of total capital
Local-level co-operatives			
A	4.1	102	13.4
B	4.5	96	13.2
C	2.8	51	10.0
D	1.7	79	6.9
E	0.4	-	3.3
F	2.3	66	8.3
K	3.0	122	12.2
L	4.2	116	14.2
Average A to L:	2.9	90	10.2
Co-operative centres			
A	3.7	119	15.5
B	0.4	349	2.3
Non-co-operative dairies			
B	-	59	10.2
C	2.0	88	7.2

- indicates not available or not published.

Source: author's research

However, such accounts are a useful supplement to the more static analysis of balance sheet structure.

Table 5.13 provides capital flow accounts for a number of German dairies between 1980 and 1982. Apart from limitations of data availability, the inclusion of dairies in the Table is limited by two further factors. Firstly, where mergers of co-operatives have occurred*, resulting in the takeover of assets and capital resources, the investment position is temporarily distorted; accordingly, dairies are included only for those years in which their growth is the result of straightforward expansion rather than through any major mergers. Secondly, several local-level co-operatives and regional co-operative centres are part of larger groupings, with the result that assets are variously held by different companies within the group and the consequent accounting complexities are difficult to unravel fully; only dairies whose accounts are not thus complicated are included in the Table.

In the case of the six local-level dairy co-operatives featured in Table 5.13, new investment in fixed assets was generally predominant and was overwhelmingly financed by means of depreciation. Depreciation in fact accounted for 55 per cent of the gross amount of capital raised in the three years considered, and in some individual instances amounted to over 75 per cent of capital increase. Viewed differently, depreciation amounted overall to almost 90 per cent of the total new investment in fixed assets and in some individual cases it exceeded the balance sheet value of such new investment. This bears out the assertions of most co-operative managers that depreciation forms the most important single source of financing, with some going so far as to say that they ensure that they write off each year in depreciation the amount thay have invested in fixed assets, in order not to have recourse to bank borrowing. Nevertheless, it is also claimed that depreciation possibilities within German accounting practice are not as favourable as in many other countries. It follows that any further relaxation of the rules on depreciation would be welcomed by co-operative dairy management as a significant help in their financing policy.

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* A frequent occurrence in recent years - see Chapter 2.

Table 5.13

The capital flow of a number of German dairies, 1980-1982

DM '000	1980	%	1981	%	1982	%
Opening value of fixed assets	31,414		30,092		34,223	
New investment in fixed assets (1)	3,763	52.6	8,191	69.8	5,922	50.5
Opening value of current assets	26,147		29,115		32,578	
New investment in current assets (1)	3,394	47.4	3,539	30.2	5,797	49.5
Total new investment (1)	7,157	100	11,730	100	11,719	100
Addition to member share accounts	- 530		261	2.2	- 213	
Addition to legal and operating reserves (2)	80	1.0	220	1.8	187	1.2
Net addition to special reserve (3)	1,103	13.2	1,060	8.9	-3,479	
Increase in long-term borrowing	- 602		2,389	20.0	- 62	
Investment grants	698	8.4	0	0.0	1,982	12.7
Depreciation and other valuation adjustments	5,180	62.2	3,992	33.4	7,734	49.4
Profit for year	85	1.0	186	1.6	98	0.6
Addition to provisions	717	8.6	1,575	13.2	1,102	7.0
Increase in short-term debt	468	5.6	2,274	19.0	4,543	29.0
Minor adjustments	- 42		- 227		- 173	
Reductions in liabilities (gross)	1,174		227		3,927	
Increase in externally-generated finance (gross)	1,166	14.0	4,924	41.2	6,525	41.7
Increase in internally-generated finance (gross)	7,165	86.0	7,033	58.8	9,121	58.3
Total gross capital increase	8,331	100	11,957	100	15,646	100

(1) Net of physical reductions of assets (e.g. through sale)

(2) From own resources - excluding investment grants

(3) Under paragraph 6b of the income tax law.

Local-level dairy co-operatives (Li to Lvi)

Lii		Liii				Liv				Lv		Lvi	
1982	%	1981	%	1982	%	1981	%	1982	%	1982	%	1980	%
20,884		54,815		56,900		11,620		12,860		12,726		6,893	
5,954		11,098	64.6	13,564	73.6	7,508	58.5	4,091	42.7	4,006		3,040	94.5
12,334		51,547		57,564		26,690		31,994		12,360		13,190	
- 16		6,076	35.4	4,859	26.4	5,322	41.5	5,486	57.3	- 762		176	5.5
5,938	100	17,174	100	18,423	100	12,830	100	9,577	100	3,244	100	3,216	100
400	6.7	561	3.2	1,922	10.0	618	4.8	800	8.1	520	13.5	- 136	
36	0.6	492	2.8	417	2.2	29	0.2	158	1.6	98	2.5	198	5.6
0	0.0	932	5.3	1,266	6.6	0	0.0	0	0.0	0	0.0	0	0.0
0	0.0	621	3.5	- 174		0	0.0	0	0.0	- 74		0	0.0
741	12.4	618	3.5	448	2.3	0	0.0	0	0.0	8	0.2	0	0.0
3,429	57.5	8,474	48.1	14,668	76.7	6,053	47.1	5,584	56.4	2,922	75.7	1,825	51.2
28	0.5	43	0.2	51	0.3	176	1.4	210	2.1	90	2.3	140	3.9
770	12.9	978	5.5	353	1.8	670	5.2	818	8.3	224	5.8	1,401	39.3
555	9.3	4,909	27.8	- 516		5,312	41.3	2,338	23.6	- 543		- 160	
- 22		- 456		- 13		- 29		- 331		- 1		- 52	
22		456		703		29		331		618		348	
1,696	28.5	6,709	38.1	2,370	12.4	5,930	46.1	3,138	31.7	528	13.7	0	0.0
4,263	71.5	10,919	61.9	16,755	87.6	6,928	53.9	6,770	68.3	3,334	86.3	3,564	100
5,959	100	17,628	100	19,125	100	12,858	100	9,908	100	3,862	100	3,564	100

continued overleaf

Table 5.13 (cont.)

DM '000	Co-operative dairy centre (Ci) 1980	%	1981	%	1982	%	Non-co-operative dairy (Ni) 1982	%
Opening value of fixed assets	39,061		47,060		65,845		119,282	
New investment in fixed assets (1)	19,025	62.5	30,504	85.6	23,031	61.7	11,990	
Opening value of current assets	59,162		70,372		75,476		95,735	
New investment in current assets (1)	11,432	37.5	5,136	14.4	14,281	38.3	- 4,899	
Total new investment (1)	30,457	100	35,640	100	37,312	100	7,091	100
Addition to member share accounts	1,500	4.6	4,725	13.1	3,842	8.6	0	0.0
Addition to legal and operating reserves (2)	553	1.7	339	0.9	689	1.5	187	0.6
Net addition to special reserve (3)	0	0.0	0	0.0	0	0.0	0	0.0
Increase in long-term borrowing	- 598		10,021	27.8	-7,132		11,076	37.4
Investment grants	2,100	6.5	248	0.7	6,385	14.4	0	0.0
Depreciation and other valuation adjustments	9,211	28.4	11,666	32.4	17,417	39.2	14,179	47.9
Profit for year	338	1.0	120	0.3	861	1.9	403	1.4
Addition to provisions	- 725		3,774	10.5	4,198	9.4	3,784	12.8
Increase in short-term debt	18,692	57.7	5,159	14.3	11,067	24.9	-22,237	
Minor adjustments	- 613		- 412		- 16		- 299	
Reductions in liabilities (gross)	1,936		412		7,148		22,536	
Increase in externally-generated finance (gross)	22,292	68.8	20,153	55.9	21,294	47.9	11,076	37.4
Increase in internally-generated finance (gross)	10,102	31.2	15,899	44.1	23,165	52.1	18,553	62.6
Total gross capital increase	32,394	100	36,052	100	44,459	100	29,629	100

(1) Net of physical reductions of assets (e.g. through sale)

(2) From own resources - excluding investment grants

(3) Under paragraph 6b of the income tax law.

Source: author's research.

Member share accounts are not generally a significant source of additional capital for many local-level dairy co-operatives and in some cases they appear to represent a minor resource haemorrhage where the decline in membership numbers is not matched by increases in capital contributions from members whose milk deliveries are increasing. Some co-operatives, however, are not concerned by this since their dynamism is sufficiently recognised in their locality for them to benefit from the demise of their competitors. One co-operative surveyed had made a special effort to encourage its 8000 or so members to contribute capital, and the sums raised were by no means negligible.

Additions to normal declared reserves are generally a steady but minor feature in co-operative financing. Most co-operative managers are concerned to maintain a steady flow of funds into reserves since the reserves themselves form a stable capital component which adds an element of security to the financing process and which is a source of strength required by potential outside creditors. This remains a minor source of finance, however, due to low profit declarations. The reserve formation process is complicated by the creation and subsequent dissolution of special reserves under paragraph 6b of the income tax law. Such reserves are effectively the declaration of hidden reserves which have been realized by sales of assets whose market value exceeded their book value; declaration of such hidden reserves is, however, not required if the funds in question are suitably re-invested within the same year in which they arise.

Annual profit, as declared in published accounts, is generally low for reasons already given. Where declared, however, balance sheet profit generally finds its way into reserves (as specified in the co-operatives' statutes) or is used to top up share accounts (if distributed to members).

Increases in provisions may form a significant proportion of capital raised for dairy co-operatives. For the six local-level co-operatives in Table 5.13, almost 8 per cent of the capital raised was accounted for in this way; in the case of one co-operative, however, the figure was almost 40 per cent. The importance of this source of finance will be dependent on the state of development of pension funds in particular, and therefore, unlike depreciation, does not constitute a continuing and regular method of finance.

The pattern with regard to external finance is varied. As noted previously, many (particularly smaller) co-operative dairies have no outstanding long-term borrowings. Of the local-level co-operatives in Table 5.13, only one took out a significant long-term loan. On the other hand, short-term debt (which includes trading debt as well as short-term bank borrowings) increased almost universally and often by substantial amounts. Such increases in indebtedness are a usual concomitant of expansion of activity and normally have their counterpart in increases in current assets.

The balance between externally-generated finance (comprising any grants received, members' share capital accounts, external borrowings and debt) and internally-generated finance was invariably weighted towards the latter for the local-level dairy co-operatives studied. Internally-generated finance ranged from 53.9 to 100 per cent and overall amounted to 70 per cent, largely due to the amounts set aside for depreciation. To the extent that internally-generated finance signifies profitability, this would suggest that the operational and management efficiency of dairy co-operatives is the main key to success and that future expansion must be internally generated. Undoubtedly, competition between the dairies is important in this connexion, but equally undoubtedly this competitiveness will result in the demise of the less efficient.

Table 5.13 also includes equivalent figures for one second-tier dairy co-operative centre and one non-co-operative dairy. In the case of the co-operative centre, it is significant that less reliance on depreciation is apparent than in the case of the local-level co-operatives, although this remains an important source of finance. Fast growth has meant that new investment in fixed assets has considerably exceeded the extent of the depreciation of existing assets, a feature not always apparent in the case of local-level dairy co-operatives. Increases in member share capital accounts also assume more significance: it is presumably easier to persuade fellow dairy co-operatives of the need to contribute long-term capital than it is for local-level co-operatives to convince dairy farmers, but this expansion of share capital is also the result of the increasing importance of the centre in question in the marketing of its members' milk. The balance between internally- and externally-generated finance increases is significantly different in the case of the dairy centre compared with the local-level dairy co-operatives. External finance has played an important role in its expansion: it has benefitted from substantial investment aid and has not been afraid to borrow externally, using its considerable financial strength to do so. Nevertheless, internally-generated finance appears to be increasing in importance. The non-co-operative dairy, too, for the one year considered relied mainly on internally-generated finance, largely in the form of depreciation.

Appendix

The accounts of German co-operatives

Paragraph 33 of the German Co-operative Law lays down in some detail the accounting requirements expected of co-operatives. The Management Board is required to provide the Supervisory Board with a balance sheet and profit and loss account, together with a business report on the year's activities. These, together with the comments of the Supervisory Board, must be laid before the General Meeting. Publication of the accounts is not necessary in the case of small co-operatives, but in all cases the Registrar of co-operatives must receive copies of the annual results. It is also specified that the accounts are to be constructed so as to provide relevant parties (members and creditors) with as sure as possible an insight into the state of the co-operative.

The business report

The business report accompanying accounts is required to give details of the asset position and the circumstances of the co-operative, explain the financial position, and draw attention to substantial deviations from the previous year. It is an important complement to the accounts, but its extent and minimum content remain at the discretion of the Management Board with the result that considerable variation in the usefulness of individual co-operatives' reports is found.

In general terms, the business report should assist the members of the General Meeting to understand the accounts and their implications. Thus it is expected to cover details of important contracts entered into, changes in the production programme, developments in the relevant markets, important investments made, the situation with regard to assets, own and borrowed capital, liquidity and earnings. As there are few specific normative requirements, the Management Board clearly has considerable room for manoeuvre; a much debated issue is whether the formation and dissolution of hidden reserves, not visible from the accounts, should be covered.

The balance sheet

The structure of a co-operative's balance sheet as laid down by the Co-operative Law is shown in Figure A.1. Assets, the concrete manifestation of the capital employed, are placed in order of the possibility of realisation, with the most illiquid first. The abstract capital resources are structured according to maturity date and homogeneity of the financial means at the co-operative's disposal, with long-term capital first. A note must be made on the balance sheet of any amounts due to be paid to share accounts - these are amounts 'called' either by the requirements of the co-operative's statute or by a decision of the General Meeting. The balance sheet employs the 'gross' principle, such that debts cannot be set against claims. It also requires that additions to and reductions in fixed capital and investments in other firms should be shown.

Co-operative accounts are in many ways less detailed than those of public limited companies. The justification given for this is the detailed auditing procedure which co-operatives must undergo (and described in Chapter Three).

The following notes elaborate on the headings of Figure A.1.

Land with buildings (A.I.2): public companies are required to split this heading according to whether the buildings are offices and factories or not. They are also required to show separately any buildings on land not owned by the co-operative and any sites under construction. Some co-operatives do make these splits.

Investments in other firms (A.II): these include any financial participati in second-tier co-operative centres. Any additional liability which exists as a result of membership in other co-operatives must be declared in the business report.

Current assets (A.III): stocks have to be given according to the state of processing reached (1 - 3). Of the various financial assets (4 - 11), separate entries are required for amounts owing as a result of the goods and services provided by the co-operative, and for claims on firms linked to the co-operative.

Figure A.1.

The German co-operative balance sheet

BILANZ - Balance Sheet

A. AKTIVA	A. Assets	B. PASSIVA	B. Capital Resources
I. ANLAGEVERMÖGEN	I. Fixed assets	I. GESCHÄFTSGUTHABEN	I. Member share accounts
1. UNBEBAUTE GRUNDSTÜCKE	1. Bare land	II. RESERVEFONDS	II. Reserves
2. BEBAUTE GRUNDSTÜCKE	2. Land with buildings	1. GESETZLICHE RÜCKLAGE	1. Legal reserve
3. MASCHINEN UND MASCHINELLE ANLAGEN	3. Machinery and machinery installations	2. ANDERE RÜCKLAGEN	2. Other declared reserves
4. WERKZEUGE, BETRIEBS- UND GESCHÄFTSINVENTAR	4. Tools and business equipment	III. RÜCKSTELLUNGEN	III. Provisions
5. KONZESSIONEN, USW.	5. Patents, licences, etc.	IV. WERTBERICHTIGUNGEN	IV. Adjustments to asset values
II. BETEILIGUNGEN	II. Investments in other firms	V. VERBINDLICHKEITEN	V. Debt
III. UMLAUFSVERMÖGEN	III. Current assets	VI. RECHNUNGSABGRENZUNGS-POSTEN	VI. Advance receipts
1. ROH-, HILFS- UND BETRIEBSSTOFFE	1. Raw materials and fuel	(VII. BILANZGEWINN)	(VII. Profit)
2. HALBFERTIGE ERZEUGNISSE	2. Unfinished products		
3. FERTIGE ERZEUGNISSE, WAREN	3. Finished products, goods		
4-11 WERTPAPIERE, SCHULDEN, FORDERUNGEN, ANZAHLUNGEN	4-11 Bonds and securities, amounts receivable, payments on account		
12. KASSENBESTAND	12. Cash balances		
13. ANDERE BANKGUTHABEN	13. Other bank accounts		
IV. RECHNUNGSABGRENZUNGSPOSTEN	IV. Advance expenditure		
(V. BILANZVERLUST)	(V. Loss)		

Advance expenditure (A.IV) is expenditure already incurred in respect of the following accounting year, such as rents paid in advance.

Member share accounts (B.I) refer to paid-up shares only. The amount owing but not yet repaid to members who have given notice of leaving the co-operative must be shown separately. These refer only to members who have given notice in the current year: amounts owing to members who gave notice in previous years are entered as debts (B.V).

Legal reserves (B.II.1): the obligatory reserve under co-operative law for the purpose of covering any balance sheet loss.

Other declared reserves (B.II.2) include any participatory reserve as well as other voluntary reserves.

Provisions (B.III) are for liabilities which exist but whose amount is not yet known. The most common are pension funds and provisions for legal cases.

Adjustments to asset values (B.IV): such entries to offset assets valued too highly generally represent provisions for bad debts, and are usually made as a small percentage of amounts owing to the co-operative.

Debt (B.V): to be shown separately are long-term loans and mortgages, short-term debts owed as a result of provision of goods and services to the co-operative, debts to firms linked to the co-operative, and amounts owing to banks and on bills of exchange. Co-operative rebates will be among debts owed to members.

Advance receipts (B.VI) are receipts of rent and the like paid in advance and relating to the coming year.

The profit or loss (B.VII or A.V) is to be entered in full and separate from profits or losses of previous years. The balance sheet represents the position before any distribution of profit or loss has been made.

The profit and loss account

The structure of a co-operative's profit and loss account as laid down in co-operative law is shown in Figure A.2. This account effectively shows how the state of affairs portrayed in the balance sheet actually came about: whereas the balance sheet reflected the apparatus of the co-operative's performance, with its financing and its structure, the profit and loss account reflects the process of the co-operative's performance.

Figure A.2

The German co-operative profit and loss account

GEWINN- UND VERLUSTRECHNUNG - Profit and Loss Account

I. AUFWENDUNGEN	I. Expenditure
1. LÖHNE UND GEHÄLTER	1. Wages and salaries
2. SOZIALE ABGABEN	2. Welfare contributions
3. ABSCHREIBUNGEN AUF ANLAGEN	3. Depreciation of fixed assets
4. ANDERE ABSCHREIBUNGEN	4. Other depreciation
5. ZINSEN	5. Interest payments
6. STEUERN	6. Tax payments
7. SONSTIGE AUFWENDUNGEN	7. Other expenditure
(8. REINGWINN)	(8. Profit)

II. ERTRÄGE	II. Revenue
1. ROHERTRAG AUS WARENVERKEHR UND DIENSTLEISTUNGEN	1. Revenue from trading
2. ERTRÄGE AUS BETEILIGUNGEN	2. Revenue from investments in other firms
3. ZINSEN UND SONSTIGE KAPITALERTRÄGE	3. Interest and other capital revenue
4. AUSSERORDENTLICHE ERTRÄGE	4. Extraordinary revenue
5. AUSSERORDENTLICHE ZUWENDUNGEN	5. Extraordinary (gratuitous) payments received
(6. VERLUST)	(6. Loss)

In many ways the profit and loss account is a less satisfactory document than the balance sheet of German dairy co-operatives. The 'gross' principle is not fully employed, such that revenue from the co-operative's activity is given net of expenditure on raw materials, auxiliary materials and other purchased goods, a laxity which is not permitted for public limited companies. For co-operatives, no distinction is made between receipts from turnover, from stock investment and from other productive activity. The true turnover position of the co-operative is veiled. Extraordinary revenue, too, is a composite of such items as profits on the disposal of property, the use of declared reserves, the dissolution of provisions no longer needed, and increases of valuation for balance sheet items.

Another major problem is that depreciation is not separated in much detail: depreciation can include valuation adjustment and the result of both ordinary and extraordinary depreciation rates, and no separation is made between depreciation on material assets and on investments. Again, more detail is required for public company accounts, for instance in distinguishing between property depreciation (reflecting usage, and thus a necessary cost to the business) and depreciation of financial assets (normally representing a loss).

In short, the co-operative's business receipts and expenditure are inadequately distinguished and are mixed up with a variety of other adjustments. The result of this coarse structuring of the profit and loss account required by co-operative law is that little insight can be gained from it into the co-operative's cost situation.

The following notes elaborate on the headings of Figure A.2.

Wages and salaries (I.1): these are shown gross, and include overtime payments, Christmas bonuses and all supplementary payments, including those to the members of the Board of Management. Welfare contributions (I.2) include social insurances to which the co-operative is legally obliged to contribute.

Other expenditure (I.7) does not include expenditure on raw materials, auxiliary materials or fuel, since these are deducted in arriving at item II.1 (receipts from goods and services).

Receipts from investments (II.2): an example would be the distributed surplus due to a co-operative from its membership in another co-operative.

Extraordinary revenue (II.4): in addition to items such as tax refunds, gains from the sale of investments or fixed assets are included here. Extraordinary payments received (II.5) are those of a gratuitous nature, such as any state subsidies or investment grants which are matched by a payment to reserves on the expenditure side of the account and hence do not increase profits declared.

The profit or loss (I.8 or II.6) is to be entered in full and separate from profits or losses of previous years.

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