Enterprise and Cooperative
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Poverty-oriented
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No. 11

On the theory of credit cooperatives: Equity and onlending in a multi-tier system — A concept paper

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Foreword

In September 1991 the ILO organised a technical consultation with the theme: "The ILO and the Financial Sector". This meeting reviewed a number of issues relevant for poverty alleviation, employment creation and financial sector development. Amongst other points, the debate focused on the question how self-help organisations could contribute to make financial services available to the poor. In this context, the role of financial cooperatives was very intensively debated, without reaching definitive conclusions.

Because of the ILO's commitment to the idea of self-help and mutual forms of organisations and taking into account the year-long practical support given to associations and cooperatives within the ILO technical cooperation programme, it was decided to devote a work item in the Poverty-oriented Banking Programme to the analysis of the suitability of financial cooperatives for reaching large numbers of the poor while ensuring a reasonable measure of financial sustainability.

More specifically — and in the light of current donor interest — the investigations should look into the effects of using financial cooperatives as conduits for getting financial resources to the poor.

The paper by Jan Krahnen and Reinhard Schmidt is meant to provide a theoretical framework for a number of field surveys, to be implemented later. Krahnen and Schmidt argue that financial cooperatives may be handicapped by their governance structure which tends to lead to suboptimal performance and a stagnant growth pattern in terms of membership. Their views, while certainly not uncontroversial, were felt to merit a wider dissemination, to elicit comments and a debate within the ILO and outside.

B. Balkenhol

I. Introduction and outline of the main issues

1. Objectives of the study

The following paper, which was commissioned by the ILO's Poverty-oriented Banking Programme, sets out to accomplish three objectives. First, at a general conceptual level, we shall structure the issues involved in the discussion of credit cooperatives in developing countries as a specific type of provider of financial services for poorer target groups. Secondly, the specific role of equity capital in a credit cooperative will be examined, in particular the question whether the shortage of equity is a major obstacle to the development of credit cooperatives. On the other hand, we shall attempt to answer the more general question as to whether, from the point of view of providers of development aid, credit cooperatives are suitable instruments of target group-oriented support. Third, we shall draw up the framework for an empirical investigation, the general objective of which would be to fill the gaps in our knowledge of the factors that determine whether or not credit cooperatives are successful.

2. The main issues

The inadequate availability of financial services is a serious handicap to the development of poor target groups in many developing countries, and it is reasonable to assume that improving the range of financial services on offer would be an important development policy objective. From what we know today, it appears that this expansion should be achieved not so much by channeling onlending funds from abroad as by promoting the establishment and consolidation of efficient local institutions which could provide target group oriented financial services. The goal is - in development policy jargon - to help others to help themselves, or - in terms of financial theory - the creation of genuine financial intermediaries. A process of sustainable development requires that savings be mobilized and placed at the disposal of the economic units, who in turn should deploy them wisely and as productively as possible. Just as the accumulation of savings by an economic unit that only invests its own funds, i.e. whose operations are self-financing and who simultaneously saves by investing in real terms, can be considered an act of self-help, so too, by the same token, can the process of savings, financial intermediation and investment be regarded as collective self-help on the part of the group comprising savers and investors. Seen in this light, the interrelationships involved tend to suggest that a credit cooperative which is sustained by the group of savers and investors is an appropriate organizational form for financial intermediation. This assumption appears all the more reasonable when one considers that credit cooperatives as self-help organizations

— have close links to the local community or the target group;

— are non-profit organizations; and

— have performed this function successfully in many countries of the world which are today industrialized nations.

Indeed, the characteristics listed here seem to imply that credit cooperatives are more suitable as an instrument of promoting self-help than profit-oriented private banks and government authorities, even if these are established under the somewhat misleading name of "development banks". There exists, therefore, an *a priori* assumption from which it is inferred that in the financial system of a developing country the credit cooperative is an efficient, target group oriented form of organization which deserves to be promoted. However, the observable facts in many countries do not live up to these high expectations. All too frequently, the cooperative financial institutions are the weakest section of a country's financial system. Individual credit cooperatives and especially the large cooperative banks are often particularly overindebted, while local credit cooperatives and cooperative systems are frequently characterized by a glaring lack of dynamism. To all appearances, many of them fail to grow into viable financial institutions that are capable in the long term of offering their clients, members or target groups an attractive range of financial services.

At any rate, the attractiveness of the basic idea of organizing at least a part of the financial system along cooperative lines - in other words, the potential of credit cooperatives - appears to stand in sharp contrast to the reality of cooperative financial systems in many countries. This raises two questions:

(1) Is the contrast really so sharp? Is it true that much can be expected of credit cooperatives but that in practice they fulfill little of their promise?

(2) And if it is true, then why should this be so? Which factors might be at work to prevent credit cooperatives or credit cooperative systems from functioning satisfactorily in so many countries and so many individual instances?

If we intend to utilize credit cooperatives as instruments of development policy, we need to be able to answer both questions. In our estimation the available knowledge regarding both questions is generally unsatisfactory. The predominant view among development practicioners seems to be that the idea of credit cooperatives is basically very good, but that for more or less accidental reasons the actual results have been disappointing. Among the factors cited as causes of the failure of cooperatives are state interventionism, discrimination and in some cases unwarranted favouritism. We, by contrast, find it conceivable - and therefore certainly worthy of investigation - that the idea of credit cooperatives only *appears* to be a good one, but in fact is not, and that factors inherent in their design are responsible for dysfunctionalities which would occur regardless of any state intervention and/or discriminatory practices. What these problems might be, and in particular, whether they are related to the equity capitalization of the credit cooperatives, is basically a theoretical question. In order to answer it, we need to analyse the mechanisms specific to cooperatives as a form of organization. And here it soon becomes apparent that the legal form of the cooperative involves a substantial attenuation of the property rights of owners, which may generate incentive or agency problems that may in turn be the cause of unsatisfactory performance.

Based on what has been said so far, it ought to be possible to establish a causal relationship, in theory at least, between the three components involved here, namely the cooperatives' performance, the cooperative structure and equity problems. A discussion of precisely how this can be achieved is beyond the scope of the present paper (see instead Krahnen/Schmidt, 1994). However, the first point to be made is that it is has not been proven that the low level of performance of cooperative financial systems actually exists as an empirical fact. The lack of a satisfactory answer to this empirical question is due in part to methodological problems, by which we refer not so much to the general problems of measuring the efficiency of financial institutions (see on this subject Mommartz/Holtmann, 1993), but more to a methodological problem specific to cooperatives. Credit cooperatives, by their very nature, exhibit a close link between their lending and deposit-collecting operations. In addition, the "promotional principle" creates a close link between the credit cooperative on the one hand and the economic enterprises and activities of the members on the other. These two factors raise the following question: how exactly should we delimit the "unit of analysis" whose level of efficiency we are trying to ascertain? Where should the boundaries be drawn? It appears intrinsically inappropriate to an assessment of the performance of a credit cooperative to draw a sharp line of distinction between the cooperative itself and its members and clients without first having established the extent to which the credit cooperative as an institution may have already "emancipated" itself from its members. Problems of delimitation apply not only in the relationship between the cooperative and its membership, but also between the individual cooperatives and the regional or national cooperative associations which are of particular relevance as entry points for the implementation of development policy.

3. How the issues are interrelated

We must first address two preliminary questions:

(1) *What precisely is a credit cooperative?*
What are the essential features which distinguish a credit cooperative from other structures? Where - in particular, regarding the measurement of efficiency - should the line be drawn between the credit cooperative and its members? And how - in particular

regarding external promotion - should we define the relationship between the local cooperatives on the one hand and the higher tiers of the specific national cooperative system? In other words: what is the subject of investigation, and what - depending on the circumstances - is being supported from the outside?

(2) *How can the efficiency of a credit cooperative be measured?*
What is the standard or yardstick by which a cooperative, or the cooperative as a form of organization - or indeed a cooperative system - could be classified as good or not so good? A financially successful cooperative which simultaneously fails to promote the development of its members should presumably be categorized as less "good" than one which appears "poor" precisely because it offers its services to the membership on favourable terms.

These two preliminary questions will be dealt with in depth in the subsequent sections. That will bring us on to the main questions:

(3) How well do credit cooperatives perform their role as financial intermediaries, as providers of financial services?

(4) Do credit cooperatives suffer from a specific equity-related problem? If so, what is its nature, and in what way is it linked to a possible performance problem?

(5) How, in terms of its relevance to performance, should we describe the operating environment of typical credit cooperatives? How do environmental factors influence the ability of credit cooperatives to provide valuable services to their clients, members or target groups on a sustained basis?

Two further questions will then be addressed which, although occupying a lower position in the logical sequence, are in fact of greater practical significance:

(6) Which approach(es) would be best suited to conducting an empirical investigation? Which operational hypotheses can be set up, which data need to be compiled - from which sources - and how can the hypotheses be tested?

(7) What are the implications of possible empirical findings for the implementation of development policy? Which promotional approaches hold out the promise of success? Is there evidence to suggest that external funding is more likely to strengthen or more likely to undermine the functional capacities of credit cooperatives?

The following diagram shows how these seven questions are interrelated.

II. Theory and problems of credit cooperatives

1. Forms and developmental patterns of credit cooperatives

There is an abundance of descriptive and prescriptive papers on the organization and ideology of (credit) cooperatives (for an overview of the literature, see Armbruster, 1990), yet in-depth studies which address the issues involved in measuring the efficiency of credit cooperatives are extremely rare. Moreover, there is also a lack of surveys on the factors which play a part in determining a cooperative's performance, such as the structure of the market for savings and credit services or the peculiarities of the corporate legal structures of cooperatives.

Existing theoretical works on credit cooperatives emphasize three principles of cooperative organization that are of particular significance to their performance (cf. Fama/Jensen 1983, Bonus 1986, Rasmusen 1988, Braverman/Guasch 1989, Krahnen/Schmidt 1994):

— the identity principle (or solidarity principle),
— the nominal capital principle (or redeemability principle) and
— the equality principle (or democracy principle).

The *Identity Principle* refers to the fact that the members of the cooperative are clients and owners. This self-contained structure is a prerequisite for the application of a simple, cheap and effective credit technology, namely peer monitoring. The high costs of screening and monitoring small borrowers operating in the informal sector, which make this market segment so unattractive for conventional banks, can be drastically reduced by this system of reciprocal or, so to speak, neighbourly monitoring (Stiglitz 1990). However, the advantage of low monitoring costs as a result of the peer monitoring system is offset by the disadvantage of the quantitative and qualitative limitation on the transformation potential of the credit cooperative as a financial institution. Owing to its fixed circle of members, a cooperative has only limited capacity for transformation in terms of amounts, maturity and risk. In order for peer monitoring to work, the group must be homogeneous and restricted to a small, easily manageable number of members, yet at the same time precisely these factors are a constraint on the financial efficiency of the institution (Krahnen/Schmidt 1994). Furthermore, many credit cooperatives were originally set up as self-help groups based on the ideal of solidarity, and in most cases the desire to gain access to cheap credit without having to go through bureaucratic formalities was probably uppermost in the minds of the founders. An inherent structural weakness of these *credit-motivated* cooperatives is their limited power to generate savings because they (have to) pay lower interest rates on deposits than are obtainable on alternative forms of investment. This weakness should be seen as an indirect cost of the policy of providing low-interest credit.

The *Nominal Capital Principle* (redeemable equity capital) means that the equity capital of the cooperative members is, in economic terms, really only a shareholder's loan as it can, in principle, be reclaimed at any time and then repayable at nominal value. In practice, the distinction between shareholdings and deposits is also frequently blurred. This situation obliges the credit cooperative to maintain a comparatively high volume of liquid reserves. Retained earnings, on the other hand, are not in danger of being redeemed or withdrawn. As a consequence, the formation of internal reserves (retained earnings) results in an irredeemable and non-voting item of equity capital. It is therefore reasonable to assume that the management of credit cooperatives will be in favour of retaining a relatively large portion of its profits.

The *Equality Principle* ("one man - one vote"), which implies that voting rights at the general meeting are not proportionate to the volume of capital invested, undermines in principle the motivation, normally inherent in equity capital, to exercise control, and invites a "free rider" mentality. As the number of members, i.e. the size of the credit cooperative, increases, this negative incentive is magnified. This in effect eliminates the regulatory function of relatively large, active investors, typical of joint stock companies.

The ideal small cooperative has many of the characteristics of an institutionally formalized Rotating Saving and Credit Association (RoSCA). It is founded on peer monitoring; its financial performance is limited, and belonging to a regional or national network (as, for example, in a multi-tier cooperative system) brings no significant improvement to its level of efficiency. Sustained growth is only achieved under exceptional circumstances - if, for example, a company, through its payroll department, acts on behalf of members as a *de facto* trustee in overseeing the credit cooperative's operations.

A large credit cooperative, on the other hand, loses the self-stabilizing qualities of a RoSCA and tends to abandon the principles of self-help and reciprocity. It can then move towards becoming a centrally organized and, by having established the relevant auditing departments, regulated group of corporations (again in the form of a multi-tier cooperative system), which in many respects has more in common with a conglomerate than a self-help group, except for the unusually large degree to which operational decision-making is delegated to the primary cooperative level. The members, although still owners, no longer play any significant role in determining "corporate policy" - this power has passed almost exclusively into the hands of the management. This also distinguishes the "cooperative group" from a joint stock company. Here the owners wield considerable power, at least in latent form, and shareholders may suddenly choose to exercise their decision-making rights, as, for example, in the case of a company takeover. In contrast, the one man one vote principle gives the management of the "cooperative group" a large degree of autonomy from the owners, i.e. the ordinary members, and management is therefore in a stronger position to pursue its own interests or what considers to be the interest of the "cooperative group" as opposed to the interest of its members.

The transition of credit cooperatives from a system of RoSCAs to a "group" is frequently triggered (at least, this is the lesson we learn from past experience) by the injection of external funds into the cooperative system. This provision of funds is generally associated with a qualitative transformation of the individual cooperative: on the one hand, with regard to strategic decision-making, it becomes a centralized structure with professional management at all levels. The channeling of external funds via the apex organization or the regional associations (which shall henceforth be referred to synonymously as secondary cooperatives or "chapters") plays an important role here as it strengthens the hand of these levels of the organization. This is so because, for the secondary cooperatives and/or the national association, the external funds represent financial resources placed at their disposal which carries the potential for sanctions, and also provides them with a means of covering their own costs. The internal financing which thereby becomes possible increases the management's independence of the decisions of individual cooperative members at all levels of the multi-tier system. Some analysts assume that this encourages the cooperative to adopt a conservative lending policy because the full-time employees who occupy the majority of managerial positions, particularly at regional and national level, prioritize the goal of safeguarding their own jobs and therefore pursue a lending policy of minimizing risk exposure (see Rasmusen 1988).

These considerations are useful to the extent that they explain empirical findings relating to cooperative structures, developments and performance. We shall therefore proceed to formulate hypotheses accessible to empirical verification, i.e. empirical material which has already been compiled in individual countries concerned. The methodological problems associated with this approach are discussed in Section III.2. The planned investigation will centre on an assessment of the significance of equity as a factor determining the efficiency of a credit cooperative. The reason for this choice of focus lies in the view shared by some development policy-makers that a credit cooperative's performance can be improved by pumping external funds into its equity base. The hypotheses therefore refer firstly to the relationship between the formation of reserves (= internal equity capital inflow) and performance, and secondly to the relationship between onlending (= external capital inflow) and performance. This second aspect has implications for the use of secondary or primary cooperatives as "conduits". If we accept the theoretical principles outlined above, then both onlending funds and internal equity formation may be the precondition for the quantitative growth of credit cooperatives, which is in that case accompanied by a qualitative transformation of the institutions. Yet onlending funds may also put excessive strain on a given cooperative institution and may in particular act as a negative incentive to the institution's efforts to mobilize savings. Furthermore, one can expect a shift of power from the primary level and towards the higher levels of the "cooperative group".

2. Problems of measuring the performance of credit cooperatives

Measuring the performance of financial institutions from the point of view of development policy is difficult enough in general terms because in addition to the standard financial criterion of economic viability, account also needs to be taken of the criterion of target group orientation, which is a fundamental consideration for development policy-makers. A possible aggregation of these two criteria, which we shall take as the basis for our analysis, treats economic viability as a precondition, and maximization of target group orientation as the objective. Both criteria are measurable in principle, thus enabling us to compare performance between, say, various financial institutions within a single country. However, the problems involved in actually measuring both criteria are so complex and so extensive that we are only able to mention some of them briefly here.[1]

Economic viability depends crucially on the financial soundness of the institution under observation. By this we mean the ability to cover all costs on a sustained basis out of income from current operations, i.e. in particular from the provision of savings and credit facilities. The costs comprise not only the operating costs of the financial institution, including its refinancing costs, but also the cost of writing off uncollectible loans and of making adequate provisions for bad and doubtful items in the investment and loan portfolios. Furthermore, the assessment

[1] A thoroughgoing elaboration on the technical details of measuring the performance of non-profit organizations is given in Mommartz/Holtmann, 1993.

of an institution's total costs must include the imputed cost of fully compensating for any inflation-induced reduction in the value of equity and quasi-equity items (such as donations). These "non-operating expenses", including write-downs and write-offs, are regularly omitted from the financial institutions' published annual accounts, and must therefore be derived from data which require additional compilation. Typically, the magnitude of the non-operating expenses is anything but negligible: failure to take them into account leads to a distorted and, in the majority of cases, a far too optimistic picture of the actual financial situation of a financial institution.

Performance measurement is all the more difficult when the financial institution concerned is a cooperative. Here we are confronted with particular problems of delimitation which render it virtually impossible to take the figures given in balance sheets and profit and loss statements at face value. In particular, it is impossible for an outsider to distinguish between the earnings for a given period, the expenditures and the distribution of profits simply by studying the accounts. This confusion arises from the practice of extending credit at low rates of interest, which is a very widespread policy among credit cooperatives. From the point of view of the cooperative members, receipt of a cheap loan, which, after all, was in most cases their main reason for joining a cooperative, is an indirect form of profit distribution. An alternative policy would be for the credit cooperative to lend out its funds at market interest rates, and then distribute the correspondingly higher net income for the year as a dividend to its members. An equally conceivable method would be to distribute the surplus in the form of higher interest rates on the savings of those members who are net depositors. However, this mode of distribution does not appear to be widely practised.

It is obvious that each of these modalities implies a different pattern of profit distribution among the membership. Whereas the "cheap credit" system means that profits are distributed in proportion to the size of a member's borrowings, the "market-rate lending" model implies that a member receives a share in the profits that is proportional to the size of his share of the equity. Very precise knowledge of the (alternative) market rates of interest that are being charged in a particular locality is required in order to determine the extent to which, in each individual case, profits are being distributed to borrowers, providers of equity or depositors. Correspondingly, we must be very cautious in formulating conclusions about the possible relationship between credit cooperatives' equity capital on the one hand and their efficiency on the other.

III. Fundamental considerations regarding equity capital and onlending

1. The role of equity capital for a credit cooperative

Is there a correlation between the capital structure of a company - in this case, a credit cooperative - and its efficiency? In the case of a joint stock corporation, it is assumed that if the debt/equity ratio is relatively low, corporate decisions tend to be overly risky because this results in a redistribution of assets at the expense of creditors, who have a claim to fixed interest, and in favour of the owners, whose claim is to dividends, which is contingent on profits. A relatively high equity ratio is not optimal either because the return on equity capital, in the form of dividends paid, depends on profits; this means that the management is under too little pressure to perform well. Evidently, if the debt-equity ratio is relatively high, the main focus is on the conflict between owners and creditors, whereas in the case of a relatively low debt-equity ratio it is between external owners and internal decision-makers (management). The conclusion to be drawn from these two arguments is that the debt-equity ratio should be moderate, i.e. neither too low nor too high. The frequently used word "relative" refers here to a control group of companies with a similar degree of risk exposure or operating in a similar environment.

However, these ideas cannot be applied directly to a cooperative, and certainly not to a credit cooperative. First, it is difficult to delimit the equity capital of a credit cooperative. Although the so-called "share capital" nominally carries the entitlement to a dividend, it has none of the other properties which the owners and shareholders of a normal corporation would take for granted. These include proportional voting rights ("one share, one vote" as opposed to "one man, one vote"), and they include the entitlement to a share of a corporation's total net value, which owners can realize by selling shares in the secondary market at any time. For cooperatives, the entitlement to a share of the net value exists only in the case of liquidation. Members of a (credit) cooperative are entitled to redeem their share, in which case the cooperative may be obliged to pay back a part of its equity. In the case of stock companies, by contrast, the non-redeemability of equity, a rule designed to protect the interests of creditors, precludes this possibility. The principle of individually reclaimable equity typically prompts the management of a credit cooperative to accumulate as high a volume of internal reserves as possible. These reserves are the result of valuation decisions (assets are undervalued, liabilities are overvalued) and the retention of earnings. However, in contrast to a joint stock company, reserves in a credit cooperative constitute "ownerless" capital which gives the cooperative management a certain degree of autonomy vis-à-vis incoming and outgoing members.

This raises the question of how the equity of a credit cooperative should be measured: should only its reserves be included (narrow definition); or should the paid-up "share capital" be added (medium definition); should an eventual supplement for uncalled liabilities of the members be taken into account (broad definition); or indeed, should the sum of share capital and all other deposits be counted together as the cooperative's "own funds" (broadest definition)?

It is even more difficult to design a method for measuring the performance of a credit cooperative (which is, after all, a non-profit organization). As explained above, "performance" is taken here to mean maximization of the target group orientation, but only on condition that the cooperative fulfills the criterion of economic viability. Here again, the diffuse ownership structure of a cooperative, in contrast to a corporation with well-defined property rights, means that there is no externally observable indicator of performance comparable to, say, the profit of a joint stock company. As a yardstick of performance we therefore have to make a choice from the following indicators of a successful business policy:

— change in the number of customers (borrowers and depositors);
— change in the volume of credit and savings;
— change in the range of products offered.

These may be supplemented - though subject to the qualifications mentioned earlier regarding indirect profit distribution via cheap interest rates on loans - by the net profit for the year (the sum of dividends and additions to reserves).

2. The role of onlending for the development of a credit cooperative

When cooperatives resort to external sources of funding, be it in the form of borrowings from the local commercial banks or a special refinancing facility provided by the central bank, or grants and/or loans from foreign donor institutions, they effectively abandon the self-help principle which characterizes the affinity of a credit cooperative to a RoSCA. On the one hand, this provides them with an opportunity of overcoming the barriers to growth that are inherent in a self-help organization. At the same time, however, such a move entails risks which threaten to undermine the stability of the cooperative.

The issues to be considered are the following: the relationship between the inflow of external capital and the ability of a cooperative to mobilize funds on its own (Hypotheses 7-10); the relationship between external funding and the quality of the credit portfolio (Hypotheses 11-15) and the relationship between the inflow of external capital and the relative growth of the importance of the secondary and/or tertiary level of the cooperative system as opposed to the primary level (Hypothesis 16).

Inflow of External Capital and Mobilization of Funds

The deposits of a credit cooperative can be divided into two categories: the *share savings*, which is the term given to the redeemable quasi-equity capital of the cooperative members which generate a variable return (dividend); and the *deposit savings*, meaning the credit cooperative's other deposits, on which an agreed rate of interest is payable. External funding relieves the cooperative of the need to maintain a balance between the volume of savings deposits and that of disbursable credit. However, because the desire for credit is (at least in most of the cases known to us) the prime motive for joining a credit cooperative, an increase in the availability of funds makes it possible to lower the savings requirements (a certain volume of share savings and deposit savings) on which receipt of a loan is conditional, and/or to raise the loan amounts. This may generate higher demand for the services of the credit cooperative, with the likely result that the volume of share savings rises along with the influx of new members. However, if the savings requirements have been lowered, this may lead - at least in the longer term - to a demobilization of the share savings. Since credit cooperatives typically pay a low rate of interest on savings, depositors will tend to maintain only the minimum level of savings required in order to qualify for a loan. **Both effects can be tested by observing whether the inflow of external funds leads to an initial increase in the volume of share savings (owing to an influx of new members), but that in the medium to long term the external funds lead to a decline in the level of share savings and in particular that of share savings per member**.

Deposit savings remain unaffected by an inflow of external funds only if they pay market rates of interest. If, however, the return on deposit savings also lies below the going rate, we can expect the impact of external funds to be similar to that described for share savings.

The assertion, therefore, is that onlending demobilizes savings. Yet this only holds true if the interest rates on savings deposits are not brought into line with market rates and members have the opportunity to take their savings to other financial institutions which pay market rates of interest. For if no alternative banks were available, the fact that the credit cooperative pays lower interest on savings would probably have no impact on its volume of savings, since the savings are unlikely to be interest-rate elastic. Statutory interest rate regulations may also prevent an upward adjustment to market levels if, for example, the rules applying to credit cooperatives differ from those governing other financial institutions. Furthermore, account must be taken of the additional stipulations which donor institutions impose upon credit cooperatives. A crucial point here is which credit cooperatives are selected to receive external funds. It could, for example, be those with the poorest record of mobilizing savings, or alternatively it could be the most successful mobilizers. This choice determines what kind of incentives are created, and what kind of signals are sent out, when a donor institution provides capital. And finally, it appears likely that an injection of external funds prompts the management of cooperatives to scale down their own efforts to mobilize savings.

Inflow of external capital and the quality of the credit portfolio

A second relationship which is open to empirical investigation is between the quality of lending decisions on the one hand and the inflow of external funds on the other hand. External funding tends to induce credit cooperatives to abandon the peer monitoring principle. The reason for this lies in the fact external funding generally forces the cooperative to widen its client base, which indeed is precisely the desired result from the point of view of the refinancing institution. By expanding the volume of its available funds, a functioning credit cooperative seeks to reach more members of the specified target group, and possibly also to increase the size of each individual loan. The inevitable consequence, however, is that the cooperative grows beyond the optimal size for peer monitoring. This, in turn, makes a more sophisticated credit technology necessary (credit screening, ongoing credit monitoring and loan recovery methods) and hiring staff qualified to operate it. The quality of the credit portfolio may deteriorate, in particular if the cooperative has not had time to adapt the new credit technology. It can also, however, prompt the managers of the credit cooperative to adopt a policy of strong risk avoidance, which prevents them from actually channeling the funds at their disposal to borrowers who could, and would like to, deploy these funds productively.

Handling a larger credit portfolio also produces additional costs which have to be covered by a corresponding increase in interest income. This is only achievable if the donor institutions do not impose unrealistically low interest rate ceilings for onlending which would prevent the credit cooperatives from making a sufficiently large spread. In that case, the costs of the new credit technology would consume a part of the onlending funds, thus reducing the volume of the credit line. Another relevant factor is the kind of institution that is granting the credit line. Different conditions have to be met, depending on whether the lender is a commercial bank, a government authority or indeed an external donor institution. Also of significance are the terms under which the external funds are provided. Regarding interest rates and amortization schedules, the terms of credits extended by foreign donors and local governmental institutions are often so favourable that they can be considered DE FACTO grants, whereas credits from commercial banks are generally subject to stringent conditions. The terms of a credit line have an impact on both the quality of the credit-screening performed by the credit cooperatives and also on the repayment discipline of the final borrowers. Government-sponsored credit lines in particular are characterized by significantly lower-quality portfolios, which can be explained primarily by a tendency on the part of those involved to regard state loans as subsidies or grants.

Inflow of external capital and development of the cooperative apex institutions

Traditional portrayals of cooperative credit systems regularly describe primary or local cooperatives as the highest level in the system in terms of authority and decision-making power. The regional associations or secondary cooperatives are subordinate institutions to which special functions may be delegated - in other words, they are apex organizations or "appendages", which in turn support a national association at the tertiary level. This picture of a descending scale of power from primary to secondary to tertiary-level cooperatives is not always borne out by the evidence of countries with developed cooperative systems. Although in formal terms supreme authority lies with the local cooperatives, in practice the regional and national organizations succeed in concentrating key levers of power in their own hands. Thus there is a tendency, which is readily observable in the development of the German cooperative movement, for credit cooperative systems to undergo a gradual transformation from a grass roots organization to a centrally controlled nationwide institution with a widespread network of local branches (the primary cooperatives), where the principle of delegation operates (only) on the level of "minor" decision-making authority. By the time this advanced stage of development has been reached, however, the original cooperative idea has become little more than an empty shell. The equality principle described above effectively prevents the primary cooperatives from taking an active role in the policy-making and regulatory processes performed by the central office. The above-mentioned qualitative transformation of credit cooperatives consists in a reinterpretation of the cooperative pyramid: the cooperative clearing house evolves from a tertiary-level institution providing support facilities, to the actual centre of decision-making power. The frequently encountered term "Cooperative Bank" is an indication that this transformation has taken place.

Inflows of external capital may play the decisive role in this redefinition of the cooperative structure for a number of reasons. By utilizing these funds, the secondary and/or tertiary cooperatives succeed in mobilizing their "own" resources, so to speak, which they can pass on as they see fit. With the secondary and tertiary institutions in control of how financial resources are distributed to the primary cooperatives, the latter organizations become dependent on the centre. Moreover, the funds channeled by secondary and tertiary cooperatives regularly carry an interest rate spread which ensures these levels a sound source of income. This in turn is what makes it possible in the first place to build up a permanent professional apparatus whose superior knowledge of banking and credit leads to a gradual takeover of control from the primary cooperatives. We assume, therefore - as a test hypothesis - that the inflow of external capital which enters the system via the secondary and/or tertiary cooperatives, is accompanied by a substantial and possibly permanent increase in the administrative costs of these cooperatives. Typically, external funds have certain stipulations attached to them. These stipulations - and the anticipated sanctions in the case of non-fulfilment, ultimately determine the extent to which the cooperative apex institutions exercise internal control over the utilization of funds by the primary cooperatives. The same effect applies to the relationship between the national organization and the regional associations within the cooperative system. The concentration of power at regional and national level opens up the possibility of expanding into new areas of business, such as the extension of larger and longer-term credits. Typically, decision-making power for credits of this type will rest not with the primary cooperatives but with the upper levels of the organizational hierarchy. One would not expect to observe an increase in the administrative costs at secondary and tertiary level, however, if the primary cooperatives received their additional external funding directly, e.g. from commercial banks, without the mediation of the higher-level cooperatives.

IV. Research concept

1. Hypotheses

a. Equity: internal financing and performance

1. The return on cooperative shares is lower than their opportunity costs (i.e. it may not exceed interest income on deposits, which in turn are less remunerative than alternative forms of savings outside the cooperative).

2. By comparison with that of other financial institutions, the application of profits of credit cooperatives is characterized by the allocation of a larger sum to reserves, i.e. too little is distributed.

3. The share capital is a monotonous function of the number of borrowers.

4. The growth of credit cooperatives is primarily the result of business policy decisions to accumulate reserves, with the formation of share capital playing a subordinate role, i.e. the balance sheet item "share capital" grows disproportionately slowly compared with the balance sheet total.

5. Increasing the volume of reserves makes the credit cooperatives more immune to the danger of unexpected withdrawals of share capital: the share of liquid assets as a function of the balance sheet total shows a single-peak distribution (small CCs are sustained by the idea of solidarity, which minimizes the risk to their liquidity; large CCs are sustained by large, non-redeemable reserves, and therefore also do not require large-scale liquid reserves; medium-sized CCs, by contrast, need to maintain considerable amounts of liquidity).

6. The sum of share capital plus reserves as a share of the balance sheet total exhibits a double-peak distribution, as there are a relatively large number of borrowers (accounting for a high volume) both where the equity ratio is low and where it is high.

b. Onlending: external capital inflow and performance

7. After an injection of external funds the membership of a credit cooperative grows at a faster rate than before receipt of the additional funds.

8. After an injection of external funds there is a temporary increase in the (absolute and relative) volume of share savings.

9. In the long term, the proportion of share savings (at least in relative terms) sinks below its initial level prior to the inflow of capital, provided that interest rates are not adjusted and that members have access to alternative financial institutions in practice.

10. The deposit savings of a credit cooperative start to decline after an injection of capital provided that they pay below-market rates of interest.

11. Following an injection of external funds (i) the average loan amount rises, (ii) the volume of the credit portfolio increases, (iii) the amount by which the credit portfolio increases is smaller than the amount of new external funds, (iv) the quality of the credit portfolio deteriorates, i.e. there is an increase in the arrears and default rates.

12. The deterioration of the credit portfolio after an injection of external funds takes place in the following order of severity: it is worst in the case of funds provided by government sources, including the central bank, somewhat less serious in the case of international "soft loans", and is least severe in the case of "hard commercial loans".

13. Following an injection of external funds, the cooperative's liquidity reserves increase and remain on a higher level in the long term, i.e. there is a permanent increase in the utilization of funds for non-target-group-oriented purposes.

14. Following an injection of external funds there is a disproportionate and permanent increase in personnel and administrative costs at all levels of the credit cooperative system.

15. Where external funds are channeled via the apex organization, this leads to the installation of internal control institutions (internal auditing departments) and consequently to the imposition of conditions on the application of the funds by the primary and secondary cooperatives.

16. The availability of external funds leads to a disproportionate rise in the "Operating Expenses" reported by the regional associations and the apex organization.

2. Empirical investigation procedures

The above hypotheses are based on our theoretical discussion of the role of internal and external capital resources for the development of credit cooperatives. Anticipating considerable problems in obtaining the data needed to corroborate these theoretical considerations, we have selected hypotheses and formulated them in such a way that they can be verified on the basis of indicators that are relatively easy to measure and using data that are relatively easy to collect. Thus, any economic interpretation, and any statistical analysis, will have to rely primarily on the available balance sheet data, possibly supplemented by informations drawn from brief questionnaires. These questionnaires are appended to this paper (see Appendices 1-4).

The required minimum scope of the survey for each institution is three successive years (preferably the same three years: 1988-1990) plus two previous years (preferably 1980 and 1985 in all cases). The required data are listed in Appendices 1-4 in the form of a questionnaire which is ready for use in the field. The questionnaire asks for various items of information on the following subjects:

— balance sheets and profit and loss statements for the primary, secondary and tertiary levels
— details of external funds received
— amount and type of external funds
— credit and amortization modalities attached to the external capital
— conditions imposed by the donor institution which have to be observed by the credit cooperative/regional association/national association
— changes in size of membership
— savings and credit modalities of the credit cooperatives
— number, and level of qualification, of staff members of the credit cooperative as well as the regional and national associations.

The data are required for the apex organization, at least three regional associations and for as many of the affiliated primary cooperatives as possible. The selection of regional associations and primary cooperatives should be random if possible, e.g. according to alphabetical order.

3. Sample selection

For the most part, the hypotheses will have to be tested using data which do not conform to the standards to which one is accustomed from financial institutions in industrialized countries. The investigation shall be based on information taken from the external accounting (balance sheets, profit and loss statements). In addition, supplementary information, collected by means of a primary survey, will be needed in order to facilitate the necessary adjustments to the sets of data (e.g. converting nominal to real values) and in order to be able to take account of any peculiarities of the cooperatives' operating environment when evaluating the data (e.g. the existence of a statutory regulation of interest rates or a set of supervisory regulations designed specifically for credit cooperatives).

The data is to be collected in countries where data are centrally available. By "data centrally available", we mean that the primary cooperatives' and regional associations' annual accounts for the years in question (1980, 85, 88, 89, 90) must be on record at the apex institution. If the accounts are not available at the apex institution, the expenditure of manpower and possibly also financial resources involved in procuring and interpreting the individual accounts would be unjustifiably high. The presence of ILO personnel locally would ensure that a staff member has responsibility for overseeing the compilation of data. The selection of countries and institutions should be made in consultation with the authors.

Owing to the wide variation of national or regional accounting practices, there is a limit to the degree to which the source data (balance sheets, profit and loss statements, primary survey data) are comparable from one institution to another. Many of these differences may not become apparent at all during the course of the survey, which means that all results must be interpreted with a certain amount of caution.

The conclusion to be drawn from this last point is that, even applying our radical simplifications in the design of the survey and the working hypotheses and therefore minimizing the data quality requirements, a broad distribution of the questionnaires will certainly not produce reliable sets of data that lend themselves to detailed evaluation. In view of the fact that the compilation of data requires such close supervision, we recommend that our design be implemented "gradually" in the framework of single-case or single-country studies. We should begin with *one* country or *one* credit cooperative (sub-) system. Not until this first survey and the evaluation of these data have been successfully completed should we proceed to investigate other countries. The ultimate goal of a cross-sectional survey can therefore only be achieved after completion of a limited series of such individual case studies.

V. Outlook

Is it at all desirable, from the point of view of development policy, to promote credit cooperatives in developing countries using external funds - or possibly, and most pertinently, through the provision of equity? The purpose of this paper was to suggest, and draw up guidelines for, the implementation of an empirical investigation, the results of which could provide the proper basis for a judgement of that kind.

We expect the empirical investigation to at least tell us more about how successful credit cooperatives are as providers of financial services. A detailed analysis may reveal that the hitherto prevailing ideas - especially those propagated by the cooperative movement itself - of the great potential and the important role of credit cooperatives (e.g. Marion, 1987) have been overoptimistic. Such a result would be analagous to the findings arrived at by Schmidt/Zeitinger (1993) on the "performance" of so-called NGOs. If it were found to be the case that, for example, many cooperatives - like many NGOs - are facing serious loan delinquency problems and are unable to cover their high administrative costs, this would be a reason for development policy-makers to exercise a certain degree of caution. However, no more than that could be deduced without more precise knowledge of the aims of the development organizations and the yardsticks they apply to evaluate available institutional or policy alternatives.

Also, we do not anticipate that empirical means will enable us to clarify the "equity problem". It seems unlikely that an equity problem exists at all in the sense that the cooperatives need more equity in order to be able to lend it out. Nor does it appear likely that credit cooperatives have an equity problem in the sense that their capital structure is different from what would be for them the "optimal capital structure". The concept of "optimal capital structure" is not sufficiently operational to permit a statement of that nature.
Rather, the problem seems to lie elsewhere, namely in the fact that the legal and economic position of an owner (or a member) in a credit cooperative is extremely weak. One adverse effect of this is that it is difficult for the credit cooperative to attract equity. Yet, as has been said, this in itself need not be regarded as a serious problem. What is more critical is the other adverse effect, namely that the management of a credit cooperative is not subject to any kind of real efficiency-oriented monitoring, and indeed has both the incentive and the opportunity to pursue inefficient business policies. This qualitative equity problem cannot be counteracted by injecting capital from the outside unless the providers of external equity were accorded a legal status far more powerful than that of the owner-members of the cooperative. Yet an intervention of this nature would be tantamount to a *de facto* abolition of the cooperative as a form of organization, or at least its gradual transformation into a joint stock company.

Mention should also be made here of another facet of a possible equity problem affecting financial instutions that, like credit cooperatives, target their activities towards poorer segments of the population. Quite frequently, past events, including past errors of judgement on the part of the management, have left such institutions effectively technically insolvent and in need of a rescue operation. And it is certainly conceivable that - in terms of development policy, and from the point of view of donor organizations and target groups - to rescue a specific existing organization is a better strategy than the creation of a new target group oriented financial institution. In such cases, the injection of equity is an indispensable means of wiping out inherited debts and putting the institution back on a solid footing. Donor organizations are urgently called upon to devise and implement a suitable package of instruments which would enable them to provide aid in the form of equity in situations of this kind.

If a donor organization believes it ought to support credit cooperatives in developing countries by providing onlending funds - be it in the form of equity or loan - it has to bear in mind that in doing so it will invariably alter the internal mechanisms of the credit cooperatives or indeed the whole cooperative system. Where credit cooperatives are concerned, injections of capital can never be neutral with respect to the governance structure. Channeling foreign money directly to the individual primary cooperatives, if indeed such a thing were possible at all, would inevitably undermine the functional principle of "peer monitoring" on which the local cooperatives are based. This may appear, under certain circumstances, to be an acceptable price to pay in view of other advantages, such as helping the cooperative to attain the desired minimum size. However, in general we consider this type of direct, local-level intervention to be highly dangerous and therefore recommend that extreme caution be exercised.

Donors committed to supporting credit cooperatives may wish to concentrate their efforts on the provision of technical cooperation in order to accelerate the acquisition of professional competencies at the respective apex level and on the creation or reinforcement of mechanisms designed to place apex-level managers under regulatory control, thus preventing them from turning their backs on the low-income target groups, deploying the funds placed at their disposal inefficiently. As a rule, this will require more active intervention on the part of donors than has previously been exhibited in the promotion of credit cooperatives in developing countries.

Combining these two warnings - on the one hand, against the injection of funds at the level of primary cooperatives, and on the other, against limiting support to apex organizations to the *mere* provision of funds without measures to compensate for the repercussions - we arrive at an overall recommendation for collaboration with credit cooperatives, or indeed with other institutions involved in development financing, which in political terms is doubtless hard to swallow: either one is willing to intervene on a massive scale, or one should steer clear of intervention altogether - a solution that goes only half way is no solution at all!

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VII. Appendices

Appendix 1: Questionnaire on primary cooperatives

Appendix 2: Questionnaire on secondary cooperatives (Chapters)

Appendix 3: Questionnaire on National Association (Apex institution)

Appendix 4: Questionnaire on general aspects of financial market and cooperative system