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POOLED FUNDING AND COLLECTIVE BORROWING: SUGGESTIONS FOR ADAPTATION IN THE FORMAL FINANCIAL SECTOR

by

Anthony Birchwood
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Suggestions for Adaptation in the Formal Financial Sector

Anthony Birchwood

Abstract

While savings mobilisation is emphasized, the allocation of scarce savings to socially desirable projects is also very important, if small economies such as those of the Caribbean are to achieve sustained economic growth and development. Historically, commercial banks have dominated the credit allocation process in the Region. However, Micro-enterprises, new business ventures and agricultural projects are often at a disadvantage in accessing credit from these institutions. Given the peculiarities associated with lending to these sectors, it is the suggestion of this paper that the adaptation of a system of group lending in the Region, similar to that practised by the Grameen Bank in Bangladesh India, as well as the incorporation of Roscas into the formal lending system, are viable options for the disbursement of credit to these sectors.

1.0 **Introduction**

In development economics, credit allocation is seen as an important means of stimulating economic development. Despite this however, the development of appropriate mechanisms which provide lenders with an incentive to lend to socially desirable projects, has proven over time to be elusive. High exposure to default risk along with market imperfections, act as a disincentive in some cases, for lenders to allocate credit to such projects. Within the context of this paper, socially desirable projects is defined to include the development of new business ventures, the development of micro-enterprises and the development of strategic enterprises such as agriculture. In addition to the funding of socially desirable projects, credit allocation can also be seen as a means of achieving income redistribution in favour of the poor, by enabling them to access funding for investment.

The importance of reaching these sectors is especially important, given the level of dislocation and the so called "J" curve effect of the Structural Adjustment policies in the Caribbean economies. The

unemployment situation is worsened by the trimming of the public service, voluntary retirement packages offered in both the public and private sector, and the closing of non-viable industries. A great deal of emphasis is now placed on self employment. Emphasis on self-employment however, must be matched by the provision of a means by which people can do so. In this respect, financing represents a critical constraint. Morewagae et al (1995), sites constraints to micro enterprise development as capital inadequacy, high cost of capital and limited access to capital especially by women. A critical issue therefore, is whether external finance is a constraint to socially desirable investment. If the answer is yes, then it is also important to address the issue of finding the most appropriate mechanism for allocating savings.

With respect to the question of whether external financing in the form of commercial bank credit is the principal constraint to investment, Birchwood (1997) undertook an econometric investigation in relation to Trinidad and Tobago. Commercial bank lending was found to be a critical constraint to investment. Birchwood (1997) also conducted a survey on bank credit culture in Trinidad and Tobago and found that commercial banks were not convinced of the profitability of lending to micro-enterprises, and their lending procedure discriminated against new small business ventures. As such, banks may very well engage in rationing credit to this market segment. The importance of finance cannot be underestimated. Henry (1990), examined small business development in Barbados, Jamaica, and Trinidad and Tobago and found that capital availability is a principal constraint to small business formation and performance. Clarke et al (1995) reported survey results which showed that in Trinidad and Tobago, commercial bank credit was especially most important for the youngest established firms. Small firms, according to them, most frequently listed project viability and unavailability of funds as the principal constraints to business expansion. There have been allegations of discrimination even on the basis of gender. An International Labour Organisation (ILO) survey in Trinidad and Tobago for example, reported that women were discriminated against by bank loan officers. Clearly, there is evidence to support the hypothesis, that finance is a critical constraint to business development in Trinidad and Tobago. Attention to the channeling of financial resources, can therefore have positive far-reaching consequences on economic growth and development, as socially desirable projects can receive financing.

The paper discusses the issue of financing of socially desirable projects especially with respect to the informal sector, with a view of finding alternative credit mechanisms which the formal financial sector can adopt. This is not to say that financing is the only constraint to business development. Marketing, management capability and financial planning are equally important. However, for tractability, the focus is narrowed to that of business financing. Section 2 of the paper highlights the results of government intervention into the conventional banking system. Section 3 examines the other extreme, that of finding market based solutions to the credit allocation problem. Section 4 looks for market based methods of improving the credit allocation mechanism. Two suggestions are: group lending and Rosca. Section 5 deals with issues in group lending, while section 6 discusses the possible incorporation of Rosca into the formal sector. Section 7 addresses the question of programme funding. Section 8 highlights the need to implement programme evaluation methods. Alternative institutions for programme implementation are discussed in Section 9. The general conclusion is presented in section 10.

2.0 Conventional lending and Government intervention

The failure of conventional lending systems both in the private and government sector to adequately channel savings to socially desirable sectors have set the stage for a research agenda on improvements and innovations in the credit mechanism. Nagarajan and Meyer (1996) for example, points out that high transaction costs have made formal financial institutions inefficient allocators of savings in developing countries. Schmidt and Zeitinger (1996) observes that the notion of large-scale subsidised projects spilling off into general economic development is now met with disillusionment. Subsidised credit offered by development banks have reached the more wealthy borrowers rather than the poor for whom the subsidy was intended. Governments attempt to intervene directly into the credit market through the creation of specialised credit institutions have been unsustainable owing to high loan delinquency, uneconomical and often negative interest rates, (Srinivasan (1994)).

Generally, conventional commercial banks in the Caribbean allocate funds primarily through the market system. Worldwide however, there have been concern as to whether these banks, left on their

own, will allocate credit in a socially desirable manner.[1] Quite often, firms in the lower end of the market are denied credit, credit fail to reach strategic sectors such as agriculture, and consumer lending tends to dominate bank portfolio. In Trinidad and Tobago, Jamaica and Barbados for example, a large percentage of credit has gone to the consumer sector, thus diminishing the proportion that goes to the business sector. The failure to allocate credit in a manner that is socially desirable, can be detrimental to welfare in many ways. It can lead to reduction in business ventures and accompanying innovations, business failures and fall outs-in employment. Indeed, even if the savings equal investment equilibrium is reached, the quality of investment should be examined, since investment is not homogeneous.

In Trinidad and Tobago, government attempted to kick-start industrial development and promote agriculture and micro-enterprise development through the formation of the Industrial Development Corporation (IDC), Development Finance Corporation (DFC) and the Agriculture Development Bank (ADB), between the years 1968-1970. These institutions however, became a drain on the national treasury. The IDC was closed, the DFC divested to become the Development Finance Limited, and government funding was withdrawn from the ADB. Bourne (1989) argued that these institutions inadvertently excluded some segments from access to credit due to insignificant funding compared to that of commercial banks. Moreover, according to him, these institutions suffered high rates of loan delinquency stemming from economic, legal and social factors. Direct involvement by government, therefore proved to be unsustainable.

3.0 **Credit Allocation Under a Free Market System**

The liberalisation argument seemed intellectually appealing, since for many countries, financial repression did not deliver as anticipated. The arguments advanced by McKinnon (1973) and Shaw (1973), strongly influenced movement in this direction. They argued that financial repression lead to a misallocation of investment resources, while financial liberalisation allows for superior resource

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[1] Examine for example the arguments of the critics of the financial liberalisation paradigm.

allocation.

Critics of the financial liberalisation paradigm have argued that it is cast in a frictionless world, and it ignores the micro-economic underpinnings of credit allocation. Market frictions include transactions cost, asymmetric information and indivisibilities. A crucial question here, is whether market imperfections are sufficient to outweigh the smooth functioning of the credit market anticipated by Mckinnon (1973) and Shaw (1973).

Theoretical models have been developed by Jaffee and Russell (1976) and Stiglitz and Weiss (1981) to show the failure of the price mechanism to adjust to ensure a Walrasian equilibrium, and they instead derive a credit rationing equilibrium as the outcome of market imperfections. In the Jaffee and Russell (1976) framework, credit is rationed in the sense that borrowers are lent less than what they request, while in the Stiglitz and Weiss (1981) frame-work, some groups of borrowers are denied credit regardless of the interest-rate they are prepared to pay. DeMeza and Webb (1987) adjusted the assumptions of Stiglitz and Weiss (1981) to show over-lending when favourable selection characterises the borrowing pool. Hillier and Abrahimo (1992), combined the adverse selection credit rationing model of Stiglitz and Weiss (1981) with DeMeza and Webb (1987) favourable selection over-lending model to strengthen the argument that a liberalised credit market could result in the misallocation of credit away from the highest return investments.

Bester (1985) questioned why banks could not use a combination of the price and non-price mechanisms to force borrowers to self-select themselves into high credit risk and low credit risk groups. The high credit risk group will be willing to borrow at high interest rates with little collateral, while the low credit risk group will be willing to mount high collateral accompanied with low interest rates. The underlying assumption is that the high risk group will distinguish themselves by their unwillingness to put their collateral at stake. The inherent problem with this scheme however, is that the low risk group may be unable to afford the high collateral necessary for distinguishing themselves, (Bester (1985)).

The emerging consensus from the micro-based models, is that the credit market by itself will not necessarily lead to an optimal allocation of savings. Some form of intervention into the operations the credit market is hinted at in these models, if savings is to be allocated in a socially efficient manner. However, the exact form of such intervention is not clear. It must be noted also that these theoretical models are developed on the basis of restrictive assumptions and their conclusions are not robust to changes in the underlying assumptions.

Implicit in the work of McKinnon (1973) and Shaw (1973) is that the formal financial sector is more efficient at allocating savings than the informal sector. Clearly however, where conventional lending systems have failed, an innovative method of financing is needed to facilitate the development of such sectors. To this end, much attention has been directed at incorporating into the formal sector, practices in informal markets, in an effort to re-engineer the credit process.

4.0 **Re-engineering the credit allocation process**

The credit allocation mechanism can be thought of as a composite of policy objectives, institutional framework and the credit technology employed. With respect to the policy objectives, a major concern has been whether various credit schemes have been able to meet those they were designed to address. Research conducted on credit technology and the institutional aspects of credit have been concerned with the development of techniques to ensure effective screening, monitoring and enforcement of loan repayment, (Wener (1995)). The institutional aspect of credit allocation is often overlooked in modern economic literature, (Braverman and Guasch (1996)). However, issues concerning the relative efficiency of formal and informal credit markets and the viability and sustainability of various types of credit schemes are all part of an ongoing research agenda in the current economic literature. Development of credit technology compatible with meeting the objective of financing the lower end of the market, is needed to address the peculiarities of this market segment, if the loan delinquency rate is to be kept minimal.

Targeting loans to specific sectors is likely to be unsuccessful, unless measures are taken to address

the risks associated with lending to these sectors. Ideally, reform of the credit mechanism must be such that it imposes appropriate sanctions and incentives to make borrowers who are able to repay but are unwilling to do so, repay their loans. In the conventional banking system, mechanisms such as collateral, screening and other devises are used. However, these mechanisms have their limitations, especially with respect to lending to the lower end of the market. In addition to the fact that the loan applicant may be unable to afford the level of collateral necessary to signal himself as a low-risk borrower, there are inherent weaknesses in collateral as a buffer for default. Collateral, for example, may turn out to be unmarketable, its market value may fall, or the bank may be unable to enforce its claim on it. Screening is bounded by asymmetric information and monitoring may be extremely expensive, especially when small loans are involved.

Many developing countries have in recent times, experimented with various credit mechanisms, in an effort to achieve targeted credit allocation. A principal aspect of these devises have been the replacement of conventional collateral with alternative devices such as sanctions and incentive mechanisms to encourage loan repayment. In Trinidad and Tobago, some lending programmes have explored the use of guarantors. Since the guarantor is at risk, it is assumed that he will have a natural incentive to guarantee a loan only in the case where he is reasonably confident of the borrower's ability to repay and social ties with the borrower should pressure the borrower into repayment. It also offers the lending institution a second line of defense, since in the event of loan default by the borrower, the lender can call upon the guarantor to repay. Potential guarantors may lack a natural incentive to undertake such a role. As guarantors they share in the risks of loan default by the borrower, but do not share in the fruits of loan repayment. Except therefore for philanthropic individuals, prospective loan applicants may face difficulty wooing individual guarantors.

The state-run institution, Small Business Development Company, does not in itself offer loans, but instead guarantees a percentage of loan amounts for prospective borrowers from other institutions. The pledge of collateral is deliberately kept to below one percent of loan requests so as to guard against moral hazard by both the lender and the borrower. A draw-back of this however, is that in the case where the applicant is still unable to pledge further collateral, the lending institution is still

exposed to risks which it may be unwilling to entertain. Thus this system is restricted in the extent to which it encourages funding of socially desirable projects.

Two mechanisms are suggested in this paper for research on their adaptability into the formal lending system in the region. These are group-lending and Rosca. Quite a bit of discussion has taken place on the schemes in the economic literature. What both mechanisms have in common is that they replace conventional collateral with social collateral.

5.0 **Group Lending as Social Collateral**

The Grameen (rural) Bank of Bangladesh, is perhaps the most renowned institution which uses this mechanism. Established in 1976, the Grameen Bank makes over 400,000 loans a month with a default rate of only about 2 percent, whereas conventional lenders in Bangladesh experience 25 to 70 percent default rate, (Srinivasan (1994)). The repayment rate experienced by the bank is even more remarkable when one considers that the bank targets the landless poor. Most of the loans are for small scale trading, shop-keeping, food processing and livestock raising.

With group lending, borrowers access funds individually, but they are also liable for loan servicing within their group. In the event that any member of the group defaults, the entire group is considered as having defaulted. In the Grameen Bank, groups are limited to five persons, with several groups forming a centre. Loans are restricted to a certain size conditioned on customer repayment record.

The bank's system of organisation is decentralised with units spread across villages. Several groups combine to form a centre. Village branches are staffed by a manager with usually a small staff, which must contain women. The staff oversees day to day management of the programme as well as recruit members. The major funding of the bank is derived from loans from the Central Bank, deposits and grants from international aid agencies and foreign governments. Loans are then issued at the market rate of interest.

The principal importance of group lending is that it replaces conventional collateral and the asymmetric information problem with peer pressure and social sanctions, (Srinivasan (1994)). According to Kandel and Lazear (1992), peer pressure is a substitute for conventional collateral if it induces on each group member a combination of guilt, shame and empathy. Guilt is experienced by the individual when he is unhappy about hurting others, while shame arises because the individual is unhappy about been found out by his colleagues as delinquent. Besely and Coate (1992) points out that if social capital is strong enough, it can effectively replace and in fact be more effective than conventional collateral in pressuring the borrower into repayment.

Crucial to group lending is the sharing of risks between the lender and the group. In conventional lending, the lender bears all the risks associated with the likelihood of borrower repayment. With group-lending, the group members are jointly liable for the debts of each other and so mutually share in the credit risk. Individuals are expected to form groups with persons they know. By doing this they reduce the extent to which the lending institution would have needed to screen loan applicants. Also, borrowers are likely to form groups with people who they believe they can monitor, and have social ties. As such, they mutually reduce the adverse selection and moral hazard problems experienced by the bank, by performing the monitoring function themselves, (Varian (1990), Kendel and Lazear (1992)). This point is particularly important given the fungibility of funds. Loans are fungible since they can be diverted to finance investments other than what is approved by the lender. The transactions cost of monitoring by the lender can potentially be high in relation to the small loan size, and interest rate. However, transaction costs of monitoring by the lender can be reduced as the monitoring function is transformed from the lender to the group.

Despite the apparent success of the Grameen Bank, group lending has had mixed fortunes worldwide. There are several limitations to such a lending scheme. Srinivasan (1994) points out that the programmes are hardly self supportive, given the expenses involved in administering them. This stems from the fact that the small loan size often imposed to limit the severity of risk exposure, impairs the achievement of scaled economies on the part of the lenders. The programmes have tended to operate mainly on a small scale out of funding grants. This also limits the ability of the

lending institution to diversify risk.

According to Varian (1990) social benefits will only be derived if the group members can monitor each other more effectively than the bank. For Besely and Coat (1995) social penalties need to be more compelling than what is available in traditional bank lending, for group lending to be more effective. Another negative feature of group lending is that even if all the other members are willing to repay their individual accounts, default by one member disqualifies the entire group.

Other negative features of group lending have been highlighted in the literature. Reinke (1996) points out that group lending like other informal market credit schemes, tend to be limited to short-term funding. In terms of group dynamism, he further argues that groups formed with competitors may experience a conflict of interest among members. Group dynamism is also affected by group size. The larger the group size, the lower the cost of liability to each member. However, the large group size carries with it a free rider problem where group members may leave the monitoring function to each other, with no one actually taking up the task. Rajasekhar (1996) recommends that the issues of group homogeneity and group size be further researched.

5.1 Can Group Lending be Adopted in the Caribbean?

An interesting question is whether the Grameen Bank success is exportable to other countries. This paper suggests that a system of group lending can be a useful devise for allocating credit to those sectors, banks often consider not credit worthy. The programme can be experimented with on a narrow scale and widened on a phased basis so as to determine its suitability for the local market and modifications can be made where necessary. Micro-enterprises, new business ventures and agriculture projects should be targeted.

An appropriate institution to conduct group lending is one that is micro-based, located in communities, and flexible in structure. Credit Unions may be a logical choice. Compared to banks, credit unions may also have a comparative advantage in lending to the lower end of the market. For

example, the members of the credit committee may personally know the background of the borrower, and as such, have an informational advantage over banks in screening loan applicants.

Members of groups can be restricted to share-holders, and as a result be partial owners of the lending enterprise. Each member is a part owner of the credit union and is entitled to seek election to sit on the board of directors and or the credit committee. It therefore gives members an opportunity to take an active role in the development of credit. This sort of flexible arrangements can potentially allow for the incorporation of the more efficient practices of the informal financial sector. Indeed, it allows the credit system to be demand-led, as opposed to supply-led. There can be, for example, flexibility in office hours, repayment terms and the adaption of practices of the informal sector.[2] The mode of operation of the credit union can be expected to reflect the wishes and aspirations of the members. In other words, by their very structure, credit unions provide customised services.

Credit unions can also encourage members to save, especially through the purchase of shares. Savings serve a dual purpose. Firstly, it allows for the transformation of members to a state of self-sufficiency, rather than totally credit dependency. As pointed out by Adams and Vogel (1986), easy access to credit can have the unintended effect of discouraging savings. Again, given the fungibility of funds, borrowers can divert their savings to unnecessary consumption-type activities, knowing that they can easily access funding for investment activity. For example, owing to the ease with which loans can be obtained, borrowers may be tempted to divert all the profits of their enterprise into paying for luxurious holidays, rather than save and plough back a percentage into their enterprise. Instead of stimulating savings therefore, easy access to credit can be a disinsentive to save.

If borrowers are to become independent, then a successful lending programme, must be one that encourages and stimulates savings. Since it is in the interest of credit unions to expand their membership by encouraging the purchase of shares, they can require borrowers to exercise this function regularly. Share purchase can be incorporated as part of a repayment strategy.

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[2] Egger (1986) highlights these features as been an important part of the success of the Grameen Bank.

A further advantage of stimulating savings is that it can serve to make the lending programme sustainable by allowing for the accumulation of pooled funds to be made available for disbursement. This in itself is an improvement over previous schemes where development banks depended on grants and government subsidies. Reliance on external funding is hardly sustainable and in many cases becomes a drain on the national treasury. Savings should push the programme closer to a level of self-reliance and sustainability.

5.2 Development of Social Collateral

Social conditions in the Caribbean may be different to what obtains in Bangladesh. Social bonds among the urban poor may not be as strong as in rural communities. Despite the fact that group members may share the same family background or belong to the same village, the strength of the bond between them may be militated against by differences in religion, levels of poverty, and ethnicity.

In the United States, despite the individualism of the society, a non-profit Boston-based company, 'Working Capital', has been able to adopt group lending through the creation of social collateral.[3] Training seminars are used both as an education devise and as an instrument for social cohesion of the group. Having trained together in business practices, members feel a sense of social responsibility to repay so as to avoid guilt and shame. The company's market appeal stems especially from the Community Reinvestment Act of 1977 which requires community banks to include low-income areas in their credit portfolio. In response to new federal guidelines to enforce the legislation, community banks are utilising the services of Working Capital.

In the Caribbean context, individuals graduating out of youth training and apprenticeship programmes, technical and vocational schools, and university, are prime candidates in this respect. In such cases, they may be anxious to get into business, may have sound business plans, and yet may

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[3] Economist, "Community Banking: Group Power", October 11, 1994: pages 91-92.

not be able to access adequate funding to invest. For example, a graduate from a garment school may be unable to afford his or her own sewing machine. The individual can form a group with other classmates who are in a similar situation and access funding on an individual basis. Because of their association together during training, individuals may feel obligated to repay their loan, in order to maintain friendship.

Group cohesion can be fostered by allowing a leader of each group to be appointed, and permitting the entire group to initially approve applications before the borrower submits his application to the lender. This provides a basis for regular group meetings. A further advantage of having regular group meetings, is that it allows for discussion of projects, and a wider array of ideas can filter into the project of each group member. Group meetings can therefore be used to discuss the status of projects, ideas on modernising and utilising technology, management and accounting systems. Projects then do not need to be run on the basis of strengths and weaknesses of one individual, but through a collectivity of ideas.

While the paper focusses on debt financing, it does not overlook the formation of a partnership as an alternative solution. Members can pool their funds together to raise capital. In some cases the partnership solution may be viable. In other cases however, there are several inherent problems in partnerships among which are free-rider problems. For example, the project may fail because some members may pass-up their responsibility to contribute to the well being of the enterprise. Also, the formation of a partnership presupposes that members possess some form of capital to bring into the business. This may not be the case for graduates of training programmes.

5.3 Repayment Incentives

A key area to address with respect to stimulating repayment by members, is the incentive mechanism. A possible incentive device, is the one used by the Grameen Bank, where the repayment record of the borrowers in the group entitles them to access higher loan levels. This in itself provides an incentive to repay, since in order for the borrower to access higher loan amounts, he must repay the

loan previously granted. Limitations on loan size also avoids a situation of large-scale loans going to wealthy borrowers. Merely providing subsidized loans with no credit ceiling to one borrower, allows lenders to lend large so as to attain economies of scale and reduce transactions cost. But this only serves to crowd out the small micro-enterprise borrowers from access to such subsidised loans, since they may be unable to mount the required collateral. Thus loan limits can be set, with the repayment record of the borrower at each stage qualifying him for a higher loan.

The use of interest rate as a means of stimulating maximum borrower performance, is another possible incentive device. This device is commonly referred to as performance pricing. With performance pricing, a mechanism is included in the loan contract that allows borrowers to be automatically rewarded (mainly through lower interest rates) for their improved performance, on the basis of some predefined criteria. For example, price may be tied to financial ratios such as leverage or cash flow. It may also be tied to some action or event such as sales targets or cost of reduction.[4]

There are social and private benefits to be derived from the use of performance pricing by credit unions. For one thing, the moral hazard problem may be reduced as borrowers are motivated to improve their performance in order to achieve lower interest rates. Transaction costs can be minimised as the need for further negotiation between the lender and the obligor to improve credit terms according to lender performance is eliminated. Furthermore, the better quality borrowers are encouraged to maintain long-term relationships with the credit union, since improved performance is rewarded by lower interest rates.

By using performance pricing, credit unions are automatically rewarded according to the quality of their loan portfolio. Such a device can be useful for the stability of these institutions as it can smoothen the inter-temporal returns of credit unions in the face of business cycles. For example, a deterioration of the portfolio owing to a negative economic shock, can automatically trigger a higher interest rate. In such an event, the higher revenue generated by performing loans may compensate

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4 See Loomis (1991) for an outline of various performance pricing criterium.

for non-performing loans. To the extent that credit unions' loan portfolios are susceptible to negative shocks in the economy or the industry, performance pricing can smoothen bank returns against such risk.

6.0 **Roscas as an Alternative to Group Lending**

Rotating Savings and Credit Associations (Roscas) have had a long tradition in the Caribbean.[5] Typically, this form of credit device has been run at offices, villages, and social organisations. Kirton (1996), in his study of Jamaica, found that most Roscas were formed among friends and co-workers. A Rosca contains a fixed number of members who contribute an equal sum of money on a regular basis for a fixed period of time. They then rotate turns in collecting the pot, which is simply the accumulated sum of money contributed by the entire group. The pot can be allocated either on a random basis or by bidding. The bidding method is more effective in allowing members the opportunity to match their hand against their needs. Roscas are particularly useful as a means of raising funds to purchase indivisible durable goods, (Besley et al (1993)).

Roscas face the risk, that once a member collects his hand he will default on future subscriptions. There is not much statistics on Roscas, given the informal nature of it. However, it will appear that default is rare. Kirton (1996) found that default in Roscas in Jamaica was extremely small. According to him:

> Membership is selective, with new members having to be recommended usually by existing members, with special attention being given to the socio-economic background, credit history and the moral standing of the potential member. ...(N)ew members are usually given the last draw.

The low level of defaults is amazing, when one considers that most of the members of the Rosca may have been considered by banks to be bad credit risks. It is even more incredible that members of the

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5 Roscas are referred to in the Caribbean by a variety of names. In Trinidad and Tobago they are referred to as Susu, in Guyana as Box, in Jamaica as Partners, in Dominican Republic as Sams and in Haiti as Sol.

Rosca do not pledge collateral and there is very little legal obligation for members to repay, except by 'word of mouth'. Besley et al (1993) points out that individual social connectedness pressures borrowers into repaying. Members are likely to form groups with friends, and non-repayment can cause loss of friendship, shame and guilt.

It is the suggestion of this paper, that the Rosca hand can also be used as collateral, by perspective borrowers so that they can access larger loans from credit unions on an individual basis. Credit unions can play the role of banker for the Rosca. Where a member requests, he can use his pot to purchase shares in the credit union. This will now allow the member to purchase so many times their newly created shares. For example, a member with only $100, in a Rosca of twelve members drawing monthly, will obtain a pot of $1200. He can then use this to purchase shares and access a loan for $2400 if the credit union has a loan ceiling of twice time shares. Thus with only $100, the member is able to borrow $2400. This scheme can only be workable however, if the borrower repays.

This type of borrowing leaves the individual indebted to his group and to the credit union. Social sanctions can commit the individual to repayment. The incentive to the credit union is that it can gain the interest received on loans granted. Credit unions can also gain information on a member's likelihood to repay his loan based on his record from previous Roscas. Thus in this case, individuals can save collectively, but access loans individually.

7.0 **Funding of micro-lending programmes**

The two schemes suggested have differing implications in terms of cost. Susu tends to be low-cost, with little transactions cost, while group lending tends to be costly to operationalise. Given the expensive nature of group-lending, a choice will have to be made as to whether the programme is to be run on a cost recovery basis, or whether it is to be run as a benevolent charitable project. Thus two approaches to financing are possible: a 'soft integrated approach' and a 'tough commercial approach', (Schmidt and Zeitinger (1996)). These approaches have implications for the cost to the borrower. The 'soft approach' allows credit to be accessed by the borrower at a rate cheaper than

what is available on the market. Since cost recovery is not its objective, this method is heavily dependent on donors and state subsidies. The 'tough commercial approach' on the other hand, aims for self-sustainability of the credit scheme. Thus, as far as possible, measures are taken to lower and recover cost. For example, loans are offered either at or beyond the market rate of interest, loan forms and procedures can be standardised and staffing can be kept at a minimal.

The choice of objective is ultimately a political one. However, given the move towards liberalisation, the 'tough commercial approach' is likely to be the more attractive choice. Unfortunately, this method still requires a certain level of subsidies and grants to amortise the cost of group lending. The paper suggests that complementary services such as training programmes be conducted by state agencies, leaving the credit union free to concentrate on lending activity. Both subsidies and the contracting out of costly activities can allow for financial stability of the credit union.

Rather than commercial banks being the originators of micro-loans, they can lend on a large scale to the credit unions, thus gaining the advantage of economies of scale. Credit unions can enjoy the advantage of obtaining the funds at a whole-sale interest rate, which should be lower than the rate at which the bank will lend on a small scale. They can in turn take advantage of the divisibility of funds and lend on a micro-basis.

8.0 **Monitoring success and failure of programmes**

Mechanisms are needed for monitoring the success and failure of the programmes. The success of credit reaching its targeted objectives, the viability of the institutions offering credit, and the success of the lending technology in attending to credit risks are important to monitor if the credit mechanisms are to be adopted by the formal sector in the local market. Measures such as productivity and efficiency of the programmes can be utilised, with targets set for institutions to reach. In an effort to reduce dependence on grants, institutions using the 'tough commercial approach' can judge their performance against preset margins.

9.0 Alternative Lending Arrangements

Credit unions are not the only institutions capable of offering these credit schemes. Government institutions, commercial banks and other Non-Governmental Organisations are alternative choices. Government Development Banks can experiment with some of these credit technologies. In Trinidad and Tobago for example, the Agricultural Development Bank and the Small Business Development Company (SBDC) can re-engineer their policies to assist new ventures through the incorporation of these schemes. As pointed out earlier, the ADB and the IDC from which the SBDC had its genesis, suffered tremendous loan delinquency problems. Mechanisms which can minimise loan defaults can therefore be useful for these institutions. The disadvantages of the adaptation of these mechanisms by government institutions, are the agency problem and the feeling by borrowers that there is no need to repay once government is the lender. The agency problem can arise, where the officers of the institution pursue their own private goals which may conflict with the rationale of such credit schemes in the first place.

Conventional banks play a pivotal role in lending in the Caribbean. They may not however be the most appropriate institutions for the disbursement of micro-enterprise credit. These institutions may lack natural incentives to lend to the lower end of the credit market, given their profit maximisation objective. For one thing, they may find transactions cost of micro-lending high in relation to the loan size. They possess the ability to realise efficiency gains by lending large and realising economies of scale, since costs remains almost fixed regardless of loan size. In addition to this, informational asymmetries may cause banks to ration credit to particular sectors or groups of borrowers. Banks may also find monitoring of micro-based loans an expensive exercise.

In quite a bit of literature, NGOs are discussed as useful institutions for the transmission of credit from international donor agencies. Similar to credit unions, NGOs are non-profit making and as such are expected to focus credit to disadvantaged groups in the society, rather than allocate loans for private gain. Schmidt and Zeitinger (1996) further defined NGOs as institutions "set up and operated by members of other social strata than those which are seen as the target group or the beneficiaries

of their activities." Typically, these institutions access funding from external agencies including multilateral agencies. Funds are then used for the financing of social projects.

Schmidt and Zeitinger (1996) conducted an empirical study of NGO performance in Latin America and found that productivity of NGOs, measured as loans per employee, was quite low. In addition to this finding, they also found that NGO programmes were high cost compared to other lending agencies. These results according to them, may stem from the fact that NGO administrators are not themselves beneficiaries and as such may have little incentive to run the programme efficiently.

10.0 **Conclusion**

There seems to be a definite problem of credit allocation to micro-enterprises, agriculture, new business ventures, especially where the poor is concerned. The risks of lending to these sectors and inadequate collateral by these groups, are often highlighted by institutions as barriers against lending to these sectors. Attempts to intervene directly by government has proven to be unsustainable, and in many cases a drain on the national treasury. The other extreme of freeing-up the credit market has been shown theoretically not to yield the best social results.

This paper suggests that the re-engineering of the credit process is in order, with emphasis placed on the development of market-based systems. Two systems have been suggested: Group lending and Roscas. It is further suggested that there is a role for credit unions despite increased financial sophistication of the economy. Their role of lending to the poor, micro-enterprises, agriculture, and new-business ventures is not so easily substitutable.

Credit unions can gain a niche market in financing the informal sector. Since the informal sector typically do not pay tax, they may prefer to deal with credit unions rather than banks. By their very nature, credit union policies can be demand-led and more readily adopted to informal lending policies.

The policy measures suggested are not limited to credit unions. They can be applied by banks, and government, and non-government agencies. However, of these, credit unions seem better able to penetrate the informal sector. Policy makers must choose whether such programmes are to be philanthropic or are to recover cost. Even if the objective is to recover cost, such a project will have to be amortised by government and external agencies until the full cost can be recovered. In such an event, monitoring mechanisms, and a time table for cost recovery can be utilised.

These innovative devises can be adopted into the formal system on an experimental basis and on a narrow scale. Implementation on a narrow scale does allow one to gain valuable insights into the success and failure of these credit devices. The projects can then be broadened if successful. However, the systems must be monitored, evaluated and rejuvenated if necessary, and not left to deteriorate. Further to this, a decision will need to be made as to whether the programmes should aim at cost recovery, or be provided on a charitable basis.

The research is by no means complete. Empirical evaluation of current lending schemes in the region, in terms of institutional design, lending technology and policy objectives are needed to inform policy analysis. The Effectiveness of legal mechanisms to enforce repayment, also needs to be examined. Information development and sharing mechanisms with respect to the credit market is also important to effectively develop the credit process.

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